A grammar of Ik (Icé-tód) : Northeast Uganda's last thriving Kuliak language
Schrock, T.B.

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PROEFSCHRIFT

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door

Terrill B. Schrock

geboren te Atmore, Alabama USA

in 1980

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To my parents, Arlin & Velma:

Dad, for imparting his way with words and his search for truth,

Mom, for showing how to learn the world with love and wonder.

And both, for taking a young boy to Africa long ago...

Acknowledgments

But the people I owe the most are found in my little family. First, I want to thank our adopted Ik daughters, Kaloyang Janet and Lemu Immaculate, for being wonderful and keeping their introverted father from becoming too much of an intellectual hermit. They have been a constant reminder of what St. Paul wrote millennia ago: "If I speak in the tongues of men and of angels, but have not love, I am only a noisy gong or a clanging cymbal."

Second, words can barely express all my wife Amber has done to make this work possible. While I slaved away at the desk, Amber received visitors, treated patients, cooked meals, attended to our children, made our home, and brought me countless cups of tea. She managed to turn a remote, rural African setting into an incredibly conducive working environment. If I could confer upon her a PhD in the holistic facilitation of linguistic science, I most definitely would. But beyond all that, Amber's faith and encouragement got me through the ups and downs of life, even when I just wanted to quit. Her incalculable sacrifice and service is honored and gratefully acknowledged.

Beyond all human help, I thank the Living God for giving me the strength, provision, and vision to complete this work. If the care He showed me over the last three years is any indication, He really must have something wonderful in store for me, for us, for the Ik...and for the Whole World.

And last but not least, I acknowledge my Lord Jesus Christ, the Grammar of God, for τὰ πάντα δι' αὐτοῦ καὶ εἰς αὐτὸν ἔκτισται· καὶ αὐτός ἐστιν πρὸ πάντων καὶ τὰ πάντα ἐν αὐτῷ συνέστηκεν—"all things were created through him and for him, and he is before all things, and in him all things hold together" (Colossians 1:16-17)—including the intricacies of the Ik language. I offer this labor of love for his glory and the advance of his reign on Earth.

In Memory of:

Lochiyo Gax Gabriel   (197?-2011)
Lopuwa Paul   (198?-2014)

Ik friends whose lives were cut short by sickness

Foreword

This book contains *a* grammar of Ik, not *the* grammar. It is really just a 'state of knowledge' report of one individual non-Ik linguist at one point in history. Of the many topics covered in the following pages, some are no doubt incorrectly analyzed, while others could probably have been correctly analyzed in more than one way. And then, of course, the ways of phrasing the descriptions of each linguistic entity number to infinity.

Trying to capture the grammar of a living language linearly on paper is a little like photographing an elusive wild animal. As it darts through the underbrush, you snap your photo. What the photo captures is true: the shape and contours of the animal, its color and patterns, its mode of movement. But as true as the photo may be, it in no way does justice to the living beast. In the same way, a written grammar can trace the structural features of a language: its phonemes, morphemes, syntactic structures. But seen in light of the living language in use, the grammar pales in comparison. Even after completing this project, all I have to do is walk through the neighborhood, overhear a conversation, or attend a public function to learn something totally new about the language. After cataloguing all the phonemes, morphemes, and many lexemes, I can still hear a string of Ik speech whose meaning escapes me entirely. I have tried to write a true description of Ik, but the language in use is much more colorful...and alive.

With this grammar I have also tried to initiate a philological tradition for Ik—'philological' in the etymological sense of 'love of learning', yes, but also in the sense of language study from written sources. From now on, one can study Ik from books alone, perhaps furthering the inquiry into the relationships between East African languages and where they came from. Attending to these questions is attending to the people who speak these languages, and this is one way we can communicate our love for them too.

"Man [and the language he speaks: TBS] is a mystery. It needs to be unraveled, and if you spend your whole life unraveling it, don't say you've wasted time. I am studying that mystery because I want to be a human being."
F. Dostoevsky 1839.

"To decipher man [and the language he speaks: TBS] is essentially to try to find out how the world was made and how it ought to go on making itself. The science of man is the practical and theoretical science of hominisation. It means profound study of the past and of origins. But still more, it means constructive experiment pursued on a continually renewed object."
Teilhard de Chardin (1881-1955)

"Grammar would appear to represent the pinnacle of humanness."
Martin Edwardes (2010)

Abbreviations

1	first person	DISTR	distributive
2	second person	DP	dummy pronoun
3	third person	EMPH	emphatic particle
A	transitive subject	EV	epenthetic vowel
ABL	ablative	EXC	exclusive
ABST	abstractive	FF	final form
ACC	accusative	FILL	filler word
ADJ.PL	adjectival plural	FUT2	removed future
ADV	adverb	FUT3	remote future
AGT	agentive	G	glide (semi-vowel)
AND	andative	GEN	genitive
ANPH	anaphoric	H	high tone
ATR	advanced tongue root	HORT	hortative
AUX	auxiliary	HYPO	hypothetical
BHVR	behaviorative	IDEO	ideophone
C	consonant	IMP	imperative
CAUS	causative	INC	inclusive
CC	copula complement	INCH	inchoative
COMP	completive	INF	infinitve
COMPL	complementizer	INFR	inferential
CONF	confirmational	INS	instrumental
CONJ	conjunction	INT	intentional
COP	copulative	INTJ	interjection
CS	copula subject	IPFV	imperfective
DAT	dative	IPS	impersonal passive
DEF	definite	IRR	irrealis
DEM	demonstrative	L	low tone
DIM	diminutive	M	mid pitch
DIST	distal	MED	medial

MID	middle	PST2	removed past
N	noun	PST3	remote past
NF	non-final form	QUOT	quotative particle
NOM	nominative	REAL	realis
NP	noun phrase	RECIP	reciprocal
O	object	REFL	reflexive
OBL	oblique	REL	relative pronoun
OPT	optative	S	subject
PASS	passive	SEQ	sequential
PAT	patientive	SG	singular
PHYS1	physical property I	SIML	simultaneous
PHYS2	physical property II	SING	singulative
PL	plurative, plural	SPS	sequential impersonal
PLUR	pluractional		passive
POSS	possessive	STAT	stative
PRES	distended present	SUB	substantive
PRF	perfect	SUBJ	subjunctive
PRO	pronoun	V	verb, vowel
PROX	proximal	VCS	verbless clause subject
PSSM	possessum	VEN	venitive
PST1	recent past		

Symbols

∅	zero realization
*	proto- or archaic form
**	ungrammatical
→	realized as, progressively assimilates
←	regressively assimilates
↛	is not realized as
=	results in
≠	does not result in
[ ]	phonetic form, allophone
/ /	phonemic form, allomorph
{ }	morphemic form
-	morpheme boundary
=	clitic boundary
+	joined to
>	historically becomes
↓	downdrift, downstep
´	high tone or pitch
`	low pitch
˵	low-falling pitch
	mid-to-high pitch rise
ˆ	high-to-low pitch fall
¯	mid pitch
⁺	floating [+ATR]
‖	pause
†	deceased

Affixes

Affix	Abbreviation	Full name	Section
-∅	[OBL]	Oblique Case	§6.3.1
-∅	[IRR]	Irrealis Modality	§7.7.1
-a⁺	NOM	Nominative Case	§6.3.2
-a⁺	REAL	Realis Modality	§7.7.2
-aák⁺-	DISTR	Distributive Adjectival	§7.10.6
-amá⁺-	PAT	Patientive Nominalizer	§7.2.4
-án⁺-	STAT	Stative Adjectival	§7.10.3
-aní-	IPS	Impersonal Passive	§7.9.3
-anoˊ	OPT/HORT	Optative First Plural/Hortative	§7.7.4
-ásí-	ABST	Abstractive Nominalizer	§7.2.3
-áti	3PL	Third Person Plural	§5.1.2, §7.5
-ɔ	INS	Instrumental Case	§6.3.3
-ɔ	ABL	Ablative Case	§6.3.4
-ɔnɪ-	INF	Intransitive Infinitive	§7.2.1
-ɔ́sí-	PASS	Passive	§7.9.2
-ɛ	GEN	Genitive Case	§6.3.5
-ɛdɛ-	POSS.SG	Possessive Singulative	§4.2.6
-ɛ́s	INT	Intentional Modality	§7.7.3
-ɛ́s	IPFV	Imperfective Aspect	§7.8.3
-ɛsɛˊ	SPS	Sequential Impersonal Passive	§7.9.4
-ɛ́sí-	INF	Transitive Infinitive	§7.2.2
-ɛt-	VEN	Venitive Directional	§7.4.2
-ɛt-	INCH	Inchoative Aspect	§7.8.5
-ɛˊ	IMP.SG	Imperative Singular	§7.7.6
-ɪ	3SG	Third Person Singular	§5.1.2, §7.5
-í-	PLUR	Pluractional Aspect	§7.8.8
-ɪaˊ-	1SG[SEQ]	Sequential First Person Singular	§7.8.1
-íɔ́	IMP.PL	Imperative Plural	§7.7.6

Affix	Abbreviation	Full name	Section
-ídɪ	2SG	Second Person Singular	§5.1.2, §7.5
-íí	1SG	First Person Singular	§5.1.2, §7.5
-ɪk-	ADJ.PL	Plural Adjectival	§7.10.5
-ɪka-	PL	Plurative III	§4.2.3
-íkó-	PL	Plurative I	§4.2.1
-ím-	MID	Middle 2	§7.9.5
-ɪma´	1PL.EXC[OPT]	Optative First Plural Exclusive	§7.7.4
-ɪma´-	1PL.EXC[SEQ]	Sequential First Plural Exclusive	§7.8.1
-ímí	1PL.EXC	First Person Plural Exclusive	§5.1.2, §7.5
-ínɔ́sí-	RECIP	Reciprocal	§7.9.6
-ɪnɛ´	1SG[OPT]	Optative First Singular	§7.7.4
-ɪnɪ	3PL[SEQ]	Sequential Third Person Plural	§7.8.1
-ɪnɪ-	POSS.PL	Possessive Plurative	§4.2.5
-ísínɪ	1PL.INC	First Person Plural Inclusive	§5.1.2, §7.5
-ɪt-	CAUS	Causative	§7.9.1
-ítí	2PL	Second Person Plural	§5.1.2, §7.5
-ítíní-	PL	Plurative II	§4.2.2
-ka⁺	ACC	Accusative Case	§6.3.6
-kɔ	COP	Copulative Case	§6.3.8
-kɔ	SEQ	Sequential Aspect	§7.8.1
-kɛ	DAT	Dative Case	§6.3.7
-kɛ	SIML	Simultaneous Aspect	§7.8.2
-nanesi-	BHVR	Behaviorative Verbalizer	§7.2.6
-ʊ̂kɔtí-	AND	Andative Directional	§7.4.1
-ʊ̂kɔtí-	COMP	Completive Aspect	§7.8.6
-V́d-	PHYS1	Physical Property I Adjectival	§7.10.1
-VƙV-	SUB	Substantive Nominalizer	§7.2.5
-V́m-	MID	Middle 1	§7.9.5
-V́m-	PHYS2	Physical Property II Adjectival	§7.10.2
-Vma-	SING	Human Singulative	§4.2.7
-´ka⁺	PRF	Present Perfect Aspect	§7.8.7

Morphemes grammaticalizing into affixes (?)

Morpheme	Abbreviation	Full name	Section
-aɟíká-	INT.PL	Internal Plurative	§4.3.6
-ama⁺-	AGT.SG	Agentive Singular	§4.3.4
-ɛní-	PSSM	Impersonal Possessum	§5.2
-icé-	AGT.PL	Agentive Plural	§4.3.4
-icíká-	VAR.PL	Variative Plurative	§4.3.7
-imá-	DIM.SG	Diminutive Singular	§4.3.3
-wicé-	DIM.PL	Diminutive Plural	§4.3.3

Archaic Affixes

Affix	Function	Source	Section
*a-	Gender marker?	?	§4.1.4
*a-	Verbal prefix	?	§7.1.4
*-a(t)	Singulative	Teso-Turkana/Cushitic?	§4.1.4
*-áŋi-	First sg. possessive	Proto-/Pre-Kuliak?	§4.4
*-ata-	Singulative	Teso-Turkana/Cushitic?	§4.1.4
*-ati-	Singulative	Teso-Turkana/Cushitic?	§4.1.4
*-atí-	Third sg. possessive	Proto-/Pre-Kuliak?	§4.4
*ɔ-/o-	Gender marker?	?	§4.1.4
*ɛ-/e-	Verbal prefix	?	§7.1.4
*ha-	Verbal prefix	?	§7.1.4
*ɪ-/i-	Class 2 verbal prefix	Teso-Turkana	§7.1.4
*-ísí-	Nominalizer	Eastern Nilotic	§7.2.3
*-ita-	Singulative	Teso-Turkana	§4.1.4
*-iti-	Singulative	Teso-Turkana	§4.1.4
*-kɪ/ki-	Preposition, case?	(pre-)Nilotic	§4.1.4
*lo-/lɔ-	Locative masc./neuter	Teso-Turkana	§4.1.4
*na-	Locative feminine	Teso-Turkana	§4.1.4
*-nan-	Nominalizer	?	§7.2.5
*nd(V)-	Interrogative	Proto-Nilo-Saharan	§5.4
*nt(V)-	Interrogative	Proto-Nilo-Saharan	§5.4
*ɲV-	Nominal gender	Teso-Turkana	§4.1.4
*ŋa-	Feminine plural prefix	Teso-Turkana	§4.1.4
*ŋi-	Masc./neuter plurative	Teso-Turkana	§4.1.4
*-oo-	Second sg. possessive	Proto-/Pre-Kuliak?	§4.4
*sɪ-/si-	Nominal prefix	(pre-)Nilotic	§4.1.4
*tɔ-/to-/ta/	Class I verbal subsec.	Teso-Turkana	§7.1.4
*tɛ-/te-	Verbal prefix	?	§7.1.4
*tɪ-/ti-	Nominal prefix	?	§4.1.4
*tɪ-/ti-	Verbal prefix	?	§7.1.4

Affix	Function	Source	Section
*-Vc	Singulative	Cushitic	§4.1.4
*-Vɗ-	Adjectival?	Proto-Nilo-Saharan?	§7.10.2
*-Vk-	Adjectival?	Proto-Nilo-Saharan?	§7.10.2
*-Vl-	Adjectival?	Proto-Nilo-Saharan?	§7.10.2
*-Vɲ	Singulative	Cushitic	§4.1.4
*-Vɲ-	Adjectival?	Proto-Nilo-Saharan?	§7.10.2
*-Vŋ-	Adjectival?	Proto-Nilo-Saharan?	§7.10.2
*-Vr-	Adjectival?	Proto-Nilo-Saharan?	§7.10.2
*-Vs-	Adjectival?	Proto-Nilo-Saharan?	§7.10.2
*-Vts'	Singulative	Cushitic/Surmic?	§4.1.4

Clitics

Clitic	Abbr.	Full name	Section
=batse	PST2	Removed Past Marker	§7.11
=ɟá	ADV	Adverb: 'so, then, just'	§8.3
=ɟɪkɪ	ADV	Adverb: 'also, too, even'	§8.3
=kɔ́tɔ́	ADV	Adverb: 'so, then, but'	§8.3
=kɛ	DEM.SG.DIST	Distal Demonstrative Enclitic Sg.	§8.2.1
=ki	DEM.PL	Distal Demonstrative Enclitic Pl.	§8.2.1
=na	DEM.SG	Proximal Dem. Enclitic Sg.	§8.2.1
=na	REL.SG	Non-Past Relative Pronoun Sg.	§5.6
=náka	PST1	Recent Past Marker	§7.11
=ná-ka	DEM.SG-PST1	Recent Past Demonstrative Sg.	§8.2.2
	REL.SG-PST1	Recent Past Relative Pronoun Sg.	§5.6
=ɲáka	ADV	Adverb: 'so, then, just'	§8.3
=nɔkɔ	PST3	Remote Past Marker	§7.11
=nɔ-kɔ	DEM.SG-PST3	Remote Past Demonstrative Sg.	§8.2.2
	REL.SG-PST3	Remote Past Relative Pro. Sg.	§5.6
=nɛ	DEM.SG.MED	Medial Demonstrative Enclitic Sg.	§8.2.1
=ni	DEM.PL	Proximal Dem. Enclitic Pl.	§8.2.1
=ni	REL.PL	Non-Past Relative Pronoun Pl.	§8.2.2
			§5.6
=ní-ki	DEM.PL-PST1	Recent Past Demonstrative Pl.	§8.2.2
	REL.PL-PST1	Recent Past Relative Pronoun Pl.	§5.6
=nu-ku	REL.PL-PST3	Remote Past Demonstrative Pl.	§8.2.2
		Remote Past Relative Pronoun Pl.	§5.6
=sɪ-na	DEM.SG-PST2	Removed Past Demonstrative Sg.	§8.2.2
	REL.SG-PST2	Removed Past Relative Pro. Sg.	§5.6
=si-ni	REL.PL-PST2	Removed Past Demonstrative Pl.	§8.2.2
		Removed Past Relative Pro. Pl.	§5.6
=ꜜdɛ́ɛ́	ANPH.SG	Anaphoric Demonstrative Sg.	§8.2.3
=ꜜdíí	ANPH.PL	Anaphoric Demonstrative Plural	§8.2.3

Clitic	Abbr.	Full name	Section
=´dɛ	DP	Dummy Pronoun	§5.10, §6.6
kɪ=	DIST	Distal Demonstrative Proclitic Sg.	§5.5, §8.2.4
ki=	DIST	Distal Demonstrative Proclitic Pl.	§5.5, §8.2.4
na=	PROX	Proximal Dem. Proclitic Sg.	§5.5, §8.2.4
na´⁺=	CONJ	Subordinating Conjunction	§8.4.1
ni=	PROX	Proximal Dem. Proclitic Pl.	§5.5, §8.2.4

1 Introduction

This book is a description of the grammar of Ik, a Kuliak (Rub) language spoken in northeast Uganda. Since any given language is the cognitive tool and cultural capital of its speakers, knowing a bit about those speakers may help one to better know the language. For that reason, this grammar of Ik begins with a short description of the Ik people themselves. This is then followed by a general introduction to the subject at hand: the Ik language.

1.1. The Ik people

The people whose language is the subject of this book call themselves the Ik (sg. *Icé-ám* [īt∫éám], pl. *Ik^a* [īka̧]). Because the Ik word for 'head' is also *ik*, some have speculated that the ethnic name comes from the Ik being the 'head' of a southerly migration long ago. However, an insight from Ik morphology makes this unlikely: Only in the nominative case do the two words resemble each other. With other cases, such as the accusative, the resemblance vanishes: cf. *icé-k^a* 'Ik-ACC' and *iká-k^a* 'head-ACC'. A more likely connection from the grammar comes from the plural agentive suffix {-icé-} whose form is identical to that of the ethnonym. The plural agentive suffix conveys the idea of 'the people (who…)'. If this semantic connection is on the right track, then the Ik refer to themselves simply as The People.

The cattle-keeping Teso-Turkana (Eastern Nilotic) tribes surrounding the Ik have two names for them, both of which mean 'poor, without livestock'. These are *Ŋíkúlyâk* (sg. *Ékulyakít*) and *Ŋíteusó* (sg. *Éteusóít*). Both terms are also applied to members of the Turkana or Karimojong tribes who are considered poor. The latter term, *Ŋíteusó*, gave rise to 'Teuso', the name by which the Ik people and language have been known abroad up to recent years. And *Ŋíkúlyâk* is the source of 'Kuliak', the title given to the linguistic subgroup of which it is a part, along with So and Nyang'í (Heine 1976).

Due to its derogatory overtones, some scholars have suggested replacing *Kuliak* with *Rub* (a Proto-Kuliak word for 'people'; see Ehret 1981; cf. Ik *roɓa-* 'people'), but it seems the older term has become conventional. Among other Ugandan peoples and internationally, the Ik are known simply as the 'Teuso' or 'Ik' (pronounced [ìkà] or [íkà] or somewhere in between).

The Ik people live in Kaabong District (formerly part of Kotido District), Dodoth County, Kamion Subcounty, in the extreme northeast corner of Uganda's Karamoja Region (see Map 1 below). Their current homeland stretches from Mt. *Lopokók* and *Tímu* Forest in the south to Mt. *Morúŋole* and Kidepo National Park in the north, occupying a narrow, 50 km long/1 km wide swath of ground along the frontier between Uganda and Kenya. A group of several hundred Ik is reported to be living in New Site, Sudan, while around 100 or so more can be found scattered across north-western Kenya seeking livelihood in urban centers. Beyond these, a small community of Ik from one family lives in Masindi, western Uganda. Although in the early 21st century the Ik mostly inhabit the nation of Uganda, it seems in times past they roamed freely between Uganda, Kenya, Ethiopia, and Sudan.

Map 1: The Ik language area in northeast Uganda
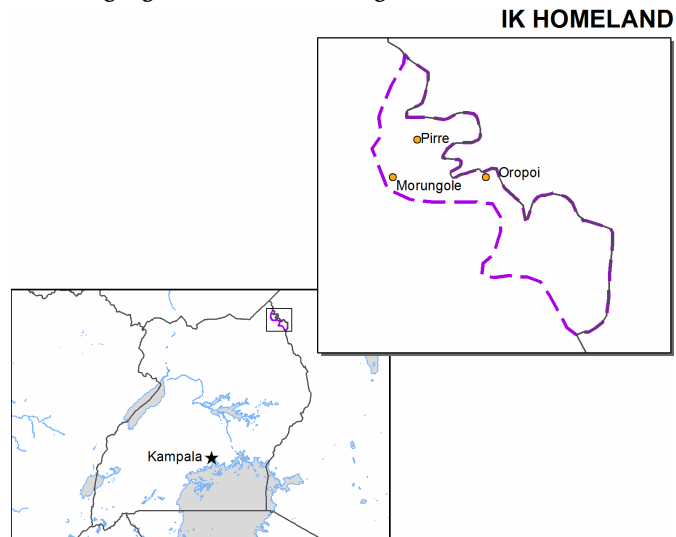
When not living in urban centers like Kaabong (Uganda) or Kakuma (Kenya), the Ik live in *awikᵃ*, 'manyattas' or 'villages'—homesteads enclosed by a high fence made of sticks, poles, and thorns (*maríŋ*). These homesteads may be small, hosting only one family, or big, hosting ten to twenty related or unrelated families. In Map 2 below, all the eighty-one (81) known (as of 2012) current Ik homesteads are marked with white pins:

Map 2—Horizontal view of Ik homesteads from the south

In Map 2, the thirty (30) homesteads clustered on the right side are known collectively as *Tímu*, while the next eight (8) ones to the left may be referred to as *Kámion*. The three (3) in the very middle are in *Lotíɲám*, and the ten (10) just to the left of *Lotíɲám* are in *Lɔkwakaramɔˊ*. Finally, the thirty (30) homesteads clustered to the far left are known collectively as *Morúŋole*.

Getting an accurate population number for the Ik has been problematic. Members of the Toposa, Turkana and Karimojong tribes intermingle and occasionally intermarry with the Ik. Numbers of family members are inflated when relief is suspected as the reason for the census. Although figures as low as 1,300 (Turnbull 1972:64) and 4,000 (Heine 1999:11) have been proposed in the past, my impression is that population has grown to at least around 7500, thanks to increased security and access to healthcare.

1.1.1 History

According to a major strand of their own oral tradition, the Ik came to their current homeland from Egypt, down the Blue Nile, by way of Ethiopia. The Egyptian origin hypothesis is highly speculative and perhaps not falsifiable. Tucker saw a connection between the Ik personal pronouns and those of Middle (1967b) or Ancient (1971) Egyptian, and the Ik themselves wonder whether their ethnonym might be related to the Egyptian *Iksos* people. But whatever their ultimate provenance may be, a more sure-footed starting point for reconstructing Ik prehistory lies within Ethiopia. Lamberti considered it the 'unquestionable result' of his 1988 study that the Ik moved to Uganda from Ethiopia (p. 6). He cites the 'numerous conformities' Ik (Kuliak) shares with Ethiopian Afroasiatic and Nilo-Saharan languages alike (p. 146), and supposes that the Ik birthplace or *Urheimat* is in the west-central Ethiopian province of Gojjam (p. 14). So though it is still impossible to piece together Ik prehistory in detail, a reasonable guess is that the Kuliak peoples spent several thousand years (Knighton 2005:40) migrating down from south-western Ethiopia and roaming the deserts and desolate hills among the borderlands of Sudan, Ethiopia, Kenya, and Uganda.

The initial migration from Ethiopia is thought to have been motivated by hunger. After finding wild honey and fruits on *Soŋot* mountain in Kenya, the Ik sent young men further south in search of even better lands. Eventually they all moved southward, and settled in *Tulútúl*, on the edge of *Tímu* Forest. After some years, a skin disease (*kodó*) ravaged the people, so that they split up and settled in other areas. Later, raids from slave traders caused them to divide again and migrate once more. This pattern of migrating to escape hunger, thirst, disease, and insecurity has characterized Ik (pre-)history up to this day. As a result, the Ik have become masters of surviving against terrible odds. The good humor they maintain in the face of hardship is testimony to their indomitable spirit and its struggle for life.

By the late 1800s, foreigners began reaching northern Karamoja and may have had contact with the Ik. In the 1950s, Catholic priests evangelized the Ik together with the Karimojong. Then, the colonial British government of Uganda turned the Kidepo Valley, one of the Ik's prime hunting grounds, into a game park in the early 1960s. The Ik's expulsion from the park was soon followed by the famine and societal upheaval so controversially narrated in the book *The Mountain People* (Turnbull 1972). In 1980, a cholera epidemic befell the Ik, killing hundreds. This prompted a widespread scattering of people, separating even parents from children.

What is known about the Ik's past tells a story of eking out survival amidst difficult, traumatic situations. To some degree, these difficulties have continued into the 21st century in the form of a extreme climatic flux, tribal conflict, lack of government services, ethnic discrimination, and political marginalization. Despite these challenges, the Ik are growing numerically and are poised to grow as a culture and society. At the time of writing this grammar, things are improving on many fronts. Inter-tribal violence is being curtailed by disarmament. Government services are coming to the Ik area. And Ik political representation and human rights' awareness is on the rise.

Pending their ongoing health and the security of the Ugandan nation as a whole, the future of the Ik looks brighter than their recent past. To paraphrase a priest-scientist speaking of humankind, "Even in this century, [the Ik] are still living as chance circumstances decide for them, with no aim but their daily bread and quiet old age…After having for so long done no more than allow [themselves] to live, [the Ik] will one day understand that the time has come to undertake [their] own development and to mark [their] own road" (De Chardin 1978:182-195). This grammar is devoted to giving the Ik the cognitive and cultural tools they need to make the difficult transition from an isolated traditional society to a modern, national one… and from there to share in greater human solidarity at the global level.

1.1.2 Ecology

The current Ik habitat portrays a scenario oft-repeated in this part of the world: minority non-pastoralist groups—often hunter-gatherer and/or farmers—being forced to high ground by powerful invading cattle-keepers. This reportedly happened to the Kuliak peoples when the Teso-Turkana groups entered northeastern Uganda. Up to this day, the Ik and the So live in mountainous areas (the Nyang'ía live at the base of a mountain range). Compare this situation to that of the South Omotic Dime people of Ethiopia who were pushed up in the mountains by the pastoralist Bodi who have them entrenched and embattled on all sides (Mulugeta 2008:1, 3). Like the Dime, the Ik are forcibly confined to their mountain perches. But they seem well adapted to them, having learned to exploit every available ecological niche. One worsening problem, though, is the lack of enough arable land.

For the terrain of Ikland (*Icé-kíjⁱᵃ*) is rugged and precarious. Its rocky surface is strewn with granite, quartz, siltstone, and chert—traces of the birth of the Eastern Rift Valley. Altitudes range from 1800–3000 meters (6000–9000 ft.), and changes in height are often dramatic as mini-plateaus give way to steep ravines and gorges. The Ik are famous for their ability to traverse these gorges with speed and agility, especially when escaping enemies.

Moreover, the climate of Ikland is characterized by extremes. Rainy season (*ɔtáⁱ*) typically starts in March or April, takes a break from June to August, and then resumes until December. On a light year, the rains may be scarce, leading to the desiccation of crops and wild plant foods. On a heavy year, the rains may be torrential, eroding topsoil and drowning crops in water-logged soil. Dry season (*ódʑ*) usually begins in December and lasts until March. In a matter of weeks, the sun and wind blanch the vegetation, making the once lush landscape only a memory. Then the land is burned off to expose wildlife to hunting and to encourage new grass growth.

Despite the long dry periods, Ikland is still home to an abundant floral life. Lower-lying valleys are covered in bushland and wooded grassland, while in the higher slopes woodland and forest fade into an Afro-alpine zone. The Ik have a thorough knowledge of local vegetation; this is reflected in the 263 plant names already catalogued (Heine 1999:153–173). They use plants and trees as food, medicine, tools, toys, household items, and building materials. Some of the more common trees found in the area include those in (1):

(1) *Some trees indigenous to the Ik homeland*

asʊnán	'African pencil cedar'	*Juniperus procera*
áts'ᵃ	'Sycamore fig'	*Ficus sycomorus*
ɓʊkúlá	'Gerrard's acacia'	*Acacia gerrardii*
gáʒadᵃ	'Red-pod terminalia'	*Terminalia brownii*
ɪtítí	'Flame tree'	*Erythrina abyssinica*
mʊs	'Candelabra'	*Euphorbia candelabrum*
tsʊm´	'Desert date'	*Balanites aegyptiaca*
tsóór	'White-thorn acacia'	*Acacia hockii*

Ikland is also host to a remarkable array of bird species. For example, Kidepo Valley National Park, bordering Ik territory to the northwest, boasts an astonishing 472 recorded birds species. Some of the more commonly seen or heard species around the Ik homesteads include:

(2) *Some birds indigenous to the Ik homeland*

alálá	'Augur buzzard'	*Buteo augur*
fúluƙurú	'White-crested turaco'	*Tauraco leucolophus*
itsókᵃ	'Amethyst sunbird'	*Chalcomitra amethystina*
ƙáraƙár	'Green wood-hoopoe'	*Phoeniculus purpureus*
kíryooró	'Crested helmet shrike'	*Prionops plumatus*
kúrakᵃ	'Fan-tailed raven'	*Corvus rhipidurus*
múɗuɗú	'Senegal coucal'	*Centropus senegalensis*
tsitsᵃ	'Gabar goshawk'	*Micronisus gabar*

Although domestic chickens and wild birds provide an occasional meal for the Ik, small mammals supply the bulk of their protein intake. A century ago, Ikland was home to much of the great East African mega-fauna (elephants, rhinos, lions, buffalo, elands, etc.), but over-hunting with guns led to their extinction in most places outside the Kidepo park. Smaller animals, like the following, are still trapped and hunted regularly:

(3)   *Some animals indigenous to the Ik homeland*

borokᵃ	'Bushpig'	*Potamochoerus porcus*
gasóʹ	'Warthog'	*Phacochoerus aethiopicus*
kɔtɔ́r	'Oribi'	*Ourebia ourebi*
kʊláɓᵃ	'Bushbuck'	*Tragelaphus scriptus*
ŋamurʹ	'Common duiker'	*Cephalophus grimmia*
ŋʊrʹ	'Cane rat'	*Thryonomys swinderianus*
ɲól	'Günther's dik-dik'	*Madoqua guentheri*
rógᵃ	'Mountain reedbuck'	*Redunca fulvorufula*
tɔrɔmɪɲ	'Crested porcupine'	*Hystrix cristata*
tsɔ́r	'Baboon'	*Papio cyncephalus*

The Ik names for many more biological species are found in Appendix B.

1.1.3 Economy

The Ik live off the land. At times they have been portrayed as pure hunter-gatherers forced to take up agriculture, but the truth is that they have been both hunter-gatherers and farmers for at least centuries. As adept survivalists, they have learned to exploit every available resource, whether meat or meal. They are omnivores and opportunists, hunting, trapping, gathering, and farming with the seasons. This broad survival strategy has enabled them to survive in an ecologically harsh yet fecund environment.

Trapping (*tɔlɔkᵃ*) is done throughout the year, while hunting (*ƙakᵃ*) occurs only during dry season, as soon as the lower valleys have been burned off.

In addition to trapping and hunting, the Ik regularly harvest wild honey (*dadᵃ*) from tree-hives, rock-hives, and hand-made hives. Another relished treat—white ants (*dáŋ*)—is collected after the first big rains.

When harvested food supplies run low, the Ik return to the bush to forage for wild fruits and greens (*waicíkᵃ*). However, this survival strategy has been constrained by regional insecurity. Not only does the bush provide meat, leather, honey, and greens, it also supplies grass (*kuᵃ*), sticks (*kɛditín*), poles (*titíríkᵃ*), and bark fibers (*simitín*) for building or renovating houses, fences, and granaries. And when an Ik needs quick cash, they may sell these materials to the neighboring Dodoth or Turkana who are eager to buy.

It is often reported that the Ik have no livestock. While this is presently true, it has not long been the case. Before the 1970s, when spears and old rifles were the weapons of the day, the Ik still kept herds of cows, goats, and sheep. Today, however, the Ik keep no domestic animals larger than dogs and chickens longer than a few days or weeks. If any are acquired at all, they are soon either given to a Dodoth or Turkana friend for safe-keeping in his herd or killed and eaten. Otherwise, they will be stolen away. The Ik miss their herds of livestock and often dream of a future time when they can again eat meat and butter and drink milk to their satisfaction.

Farming (*tɔkɔbᵃ*) is the main economic activity of the Ik. It is an all-consuming effort that takes up much of the year and requires the contribution of all family members. The Ik cultivate sorghum (*ŋám*), finger millet (*rébᵃ*), and maize (*ɲaɓuraˊ*) as staple crops and supplement these with pumpkins (*kaideˊ*), beans (*moriᵃ*), and greens (*waicíkᵃ*) of various kinds. The hard labor of agriculture is often done is groups of men and/or women. The payment for group work is typically home-brew sorghum or maize beer (*mɛs*). Harvested crops that are not immediately consumed are stored in granaries (*lódúrúikᵃ*). The centrality of farming to the Ik is ritualized in the agricultural ceremonies they hold throughout the year. For example:

(4)   *Ik agricultural ceremonies*

ınúnúmɛs	'ceremony for the first harvest'
iróríkés	'ceremony for opening the harvest'
itówéés	'ceremony for blessing the seeds'
dzíberika-mɛs	'ceremony for blessing farming tools'

Before the advent of the AK-47 rifle and the chaos it has caused around Ikland, the Ik used to carry on successful trade (*dzígwᵃ*) with the Turkana from Kenya. The Ik would exchange their snuff tobacco (*lɔ́tɔ́bᵃ*), decorated gourds (*boloíkᵃ*), and grains (*edᵃ*) for the Turkana's milk (*ídwᵃ*), meat (*em*), animals (*ínwᵃ*), clothing (*kwázikᵃ*), and jewelry (*ŋábitikᵃ*). In times of need, the two tribes could get what they did not have in exchange for what they had. Even though this trade remains today to a limited extent, the region's violence has eroded a certain level of trust between the two groups.

1.1.4 Society and culture

The seven thousand or so Ik may be divided up on the basis of patriclan, family, gender, age, or government administrative unit. The twelve traditional clans, listed in (5), are exogamous, patrilineal, and patrilocal. When a particular clan gets too big, it can be divided into two, as in:

(5)   *Ik patriclans*

Sigétia I	Ŋídɔtsa
Sigétia II	Télékᵃ I
Komokua I	Télékᵃ II
Komokua II	Gaɗukúɲ
Nɔrɔbat	Ŋíbɔ́ŋɔrana
Iléɲí-ikᵃ	Úzɛtᵃ

Clans are tied to certain areas historically, but because Ik are required to marry outside their clan, clan members may end up in different territory. A newly married couple starts their own nuclear family (*ts'adí-ékwᵃ*, lit. 'fire-

eye' or 'hearth'), building a homestead either attached to the bridegroom's parents' village or in a new, separate spot. Clan and family ties are strong, to the point that kinship relations form the backbone of Ik society.

Men and women have fairly clear-cut divisions of labor. Men protect the family, hunt, trap, farm, cut and bring trees from the forest, and build fences and houses. Women fetch water and firewood, cook and clean, farm, thatch houses, and raise children. Fathers and mother both discipline children. Not too long ago, the Ik further divided themselves according to age-groups or age-sets. Each age-group had a totem based on a particular animal. Each age-group had its own rites of initiation, activities, benefits, and duties. Today, with the influence of modern education and forms of Christianity leading to cultural apathy, the age-group system has sadly been mostly abandoned. These age-groups included the following (Heine 1999):

(6)   *Ik age-groups*

Basaúr	'Eland'
Gasar	'Buffalo'
Gwaíts'ᵃ	'Giraffe'
Kaɗokóⁱ	'Vervet Monkey'
Koɗowᵃ	'Gazelle'
Leweɲ	'Ostrich'
Rágwᵃ	'Ox'

Traditional patriclan and family divisions are often centered around homesteads clustered into units called 'villages'. On top of this organization, the Ugandan government has lain its own administrative system. This system starts at the 'village' and then goes up through wards, parishes, subcounties, and so on up to the district level. The newly founded (2010) Kamion Subcounty comprises all the Ik population and is divided into five parishes: Kapalu, Timu, Kamion, Lokwakaramoe, and Moruɲole.

Traditionally, the male elders ruled Ik society. Elderly woman gave input when invited. Men can become elders on the basis of age but also influence or ability to speak well publicly. The elders built a system of taboos, fines for breaking taboos, and punishments for wrong-doing. Since British rule more than a hundred years ago, the Ik also have had government-appointed or popularly elected Ik as officials. These include Villages Counselors and Parish Chiefs. They have official authority but comparatively little real authority among the people. The two systems of rule now coexist and conflict in Ikland. People are not always sure which system to refer to when a crime has been committed. Traditional punishments like caning are discouraged by the government whose own judicial procedures are corrupt. So unfortunately, true justice is rarely upheld for the victims of crimes.

In terms of religion, the Ik practice what has been generally called African Traditional Religion (ATR). This religion involves a sky-god called *Didi-Gwarí*, literally 'weather-top', who is mostly associated with benevolent or malevolent weather patterns and the effects they have on the Ik's livelihood. The Ik can influence this god through prayer (*wáán*) and sacrifice (*síts'ᵃ*).

Various forms of Christianity are now intermingled with traditional Ik religion: Roman Catholicism from the mid-20th century, Anglicanism and Pentecostalism from the early 21st century. Although the supreme God of Christianity can be translated into Ik as *Didi-Gwarí*, it is more commonly rendered *Nakúj*, after the sky-god *Akuj* of the Karimojong and Turkana.

While *Didi-Gwarí* governs the affairs of the skies, it is the lesser gods (*nakújiicíkᵃ*) and evil spirits (*nɛkípyɛíkᵃ*) who meddle in the daily affairs of people. More than the great Weather-Top sky-god, these lesser spirits can be manipulated by skilled practitioners, for either good purposes like healing or evil purposes like killing. Those Ik who are skilled at using traditional herbs (*cémɛrɪkᵃ*) for healing are called *ŋkwaatikwᵃ*. And those who use charms, amulets, and other devices to curse or hex another are called *suɓɛsí-ikᵃ*. These hexers are often paid to carry out revenge.

In Ik belief, spirits can also be embodied, and their embodiments seem to be ambiguous in regard to their intent toward humankind. Stories circulate among the Ik about the *kíjá-wikᵃ*, or 'earth-children': small, often light-skinned humanoid creatures seen on paths or among trees. While not outright dangerous, these forest-fairies often warn Ik settlers against settling in their territory. Another embodiment is the *badi-am*, a 'wizard' or 'sorcerer'. Typically spoken of as a human, these mysterious figures are said to move about at night, haunting villages and doing things weird and fantastic. They are more humorous than dangerous. Owls (*lófúkᵃ*) are believed to be wizards transforming themselves into birds, and hyenas (*haí*) are thought to be the animal that wizards travel around on at night.

The strong belief among the Ik that physical effects in their lifeworld have spiritual causes, often initiated by other humans manipulating the spirits, has led to a culture of superstition. Where one might expect conventional wisdom, for example in the realm of child-rearing, one gets instead superstitions encapsulated in short sayings. Consider the following:

(7)   *Na ima zɛkwétɔɔ gwaséé na ŋuésíɛɛ, baduƙota ŋwaátᵃ.*
        If a child sits on a grinding stone, his or her mother will die.

        Máá kɔƙída asaka nɛɛ iídee ho-akɔkᵉ, ipédída as.
        Don't close the door when you're inside, lest you bewitch yourself.

        Cɛma cíƙóroiko sédikee ŋura didia sédikoo díí.
        Fighting over garden boundaries will stop rain in those gardens.

In addition to superstitions, prohibitions or taboos also figure prominently in Ik daily life. These taboos play an important role in governing the society and avoiding conflict. Breaking a prohibition usually requires the offender to pay a fine to the elders or those offended. The following are some examples of prohibitions:

(8)   *Some Ik prohibitions*

bɔsɛ́s	against fining children or youth
cuᵉ	against failing to give water to elders first
dɛ	against failing to give leg-meat to elders
ifófóés	against eating the first harvest secretly
imwáŋón	against seeing your mother-in-law

While such taboos remain salient in the society overall, their power is lessening as the younger generations embrace modern, homogenized, and Christianized Ugandan national culture. Inevitably, the old spiritual ways of parents and ancestors are increasingly being seen as strange and irrelevant.

1.2   The Ik language

The Ik people call their language *Icé-tód* [ītʃé-tôɗˋ] (Ethnologue code *ikx*), meaning literally 'Ik-talk'. It is the mother-tongue of approximately 7,500 people. The neighboring Teso-Turkana peoples call the language *Ŋáteusó*, and on a recently created page of the Swahili Wikipedia (http://sw.wikipedia.org/wiki/Kiik), the language received the Swahili name *Kiik*. In keeping with scholarly convention and for the sake of brevity, the language is referred to simply as *Ik* throughout the rest of this grammar.

1.2.1 Classification

Greenberg (1963) is the purportedly the source of the original 'Kuliak Hypothesis' which placed Ik and Nyang'ía into a linguistic cluster based on observed shared traits (Fleming 1983:426). Heine (1976) elaborated on this hypothesis with a comparative grammar sketch and internal reconstruction of the group he called *Kuliak* consisting of Ik, Nyang'ía, and So/Tepeth. Since then, the internal linguistic relationship between the Kuliak languages has never been seriously questioned in the literature (Fleming 1983:426). But, amazingly, no less than six different external classifications for Kuliak have been proposed over the last fifty years. These conflicting classifications and some of the linguists who have supported them are presented below:

(9)   *Conflicting classifications of Kuliak*

❖ Afroasiatic, 'Fringe' Cushitic—Tucker 1967a, 1967b, 1971–3. This classification was based on, among other things, supposed similarities between Ik and Ancient Egyptian personal pronouns. Ik's elaborate case system also suggests an Afroasiatic affiliation, but this could just as likely be from sustained language contact.

❖ Afroasiatic, East Cushitic—Lamberti 1988. Although Lamberti never actually claimed that Kuliak is related to Cushitic genetically, he provides ample lexical and morphological evidence demonstrating at least a significant and long-term cultural contact between Kuliak and Cushitic.

❖ Nilo-Saharan, East Sudanic—Greenberg 1963, Ehret 1981a, 1981b, 1989 (in a modified form), 2001, Fleming 1983, Lewis 2013. Evidence supporting this classification includes a high percentage of lexical cognates with Eastern Nilotic (and Western and Southern Nilotic to a lesser degree), as well as shared morpho-syntactic traits with the larger Nilo-Saharan phylum.

❖ Nilo-Saharan, 'Satellite-Core'/independent—Bender 1976b, 1989, 1996, Knighton 2005, Dimmendaal 2011.

❖ Nilo-Saharan, Northeastern branch—Dimmendaal 2013. This classification is based on traits shared between Kuliak and Nilo-Saharan languages, e.g. an accusative case marker *ka/ga*, derivational verbal prefixes, and the causative ɪ-/i- which is considered a stable diagnostic of Nilo-Saharan.

❖ Unclassified—Gulliver 1952, Laughlin 1975, Heine 1976, 1999, König 2002. Due to conflicting or insufficient evidence, these linguists believe a sure classification cannot yet be made.

If these differing classifications are any indication, the Kuliak languages truly are "an enigma in African linguistics" (Carlin 1993:4)

The purpose of this grammar is not to advance another classificatory hypothesis for Kuliak. But nonetheless, it is hoped that the insights gained from this study will get the problem closer to its resolution. For a variety of reasons, there seems to be a bias in the literature toward a Nilo-Saharan classification for Ik (and Kuliak). The question really has to do with what it means for a language to be related to another. If, as has been pointed out in Ehret (1981a) and Fleming (1983), a larger percentage of Ik phonological, morphological, and lexical traits can be linked to Nilo-Saharan than to Afroasiatic, is that sufficient evidence for positing a genetic relationship with Nilo-Saharan? Is the ample counter-evidence linking Ik to Cushitic (e.g. Lamberti 1988) or Omotic not convincing because of lower percentages?

Without going into great detail, my impression after completing this study of Ik grammar is that Ik—and Kuliak by extension—should not be pronounced Afroasiatic or Nilo-Saharan at this time. This statement no doubt puts me in the camp of 'splitters' who resist higher-level classifications before strongly established sub-groupings (cf. Blench 2010). I have taken note of the high number of phonological, morphological, syntactic, and lexical traits tying Ik to Nilo-Saharan, particularly Eastern and Southern Nilotic. But I have also traced a growing number of morphemes to both Cushitic and Omotic. Then there remains, of course, a number of affixes and lexemes for which no areal parallels have been identified.

To summarize, I believe that the Ik language is a yet unclassifiable ancient language originating somewhere in Ethiopia that has had millennia of contact with both Afroasiatic and Nilo-Saharan. This sustained contact has left traces in the form of linguistic 'genes' or 'traits' shared with both phyla. In recent centuries, a particularly influential contact with Eastern Nilotic languages led to a massive influx of vocabulary and calqued grammatical structures. Like Shabo in Ethiopia, Ik's linguistic traits straddle at least two language phyla, and distinguishing contact versus genetic influence will be extremely difficult. These cross-phyletic resemblances must be exhaustively identified and catalogued to see what remains of any old Kuliak substrate.

1.2.2 Typology

The difficulty in classifying Ik genetically stems largely from its unique and eclectic typological profile among other languages in East Africa. This typological profile is summarized below and illustrated with an annotated text. The goal of this section is to give the reader an overall impression of the language—a sort of typological *Gestalt*—in case there is no time to read through each chapter in detail. The overview begins with phonology and then proceeds through morphology, syntax, and finally the annotated text.

In terms of phonology, Ik has thirty-nine (39) contrastive sounds: thirty (30) consonants and nine (9) vowels. Consonants made with pulmonic airstream include plosives, affricates, fricatives, liquids, nasals, and glides. Those made with glottalic airstream include implosives and ejectives. The three lateral fricatives and ejectives Ik once used are now almost entirely lost. Eight of the nine vowels consist of [+ATR]/[-ATR] pairs that operate in a [+ATR]-dominant vowel harmony system. The low vowel /a/ is opaque but can be lexically (morphologically) specified with either [ATR] value.

The rightward edge of an Ik phonological phrase is strictly observed. This means that the final segment of any word or morpheme, whether consonant or vowel, is reduced before a pause. In this reduction, consonants may be partially devoiced and/or unreleased, while vowels are usually fully devoiced or deleted. Devoiced consonants and vowels are allophonic, not phonemic. Other allophonic changes observed among consonants include nasal assimilation, place assimilation, implosivization, and debuccalization, while other allophones among vowels arise from raising and glottalization. At the juncture of morphemes, certain consonants may be deleted and vowel may assimilate partially or totally to nearby vowels.

The template (C)V can generate all lawful phonological syllables in Ik, and the concatenation of morphemes may require resyllabifications in the form of vowel epenthesis, inter-consonantal syncope, vowel deletion, haplology,

desyllabification/compensatory lengthening, and metathesis. At the surface level, the template (C)V(V)(C) generates all lawful phonetic syllables.

Ik is a tonal language with two underlying tone levels: H and L. Ik has lexical tone though few tonal minimal pairs. There is no grammatical tone in the sense of a morpheme made up solely of a tonal autosegment. However, tone changes do accompany various segmental morphemes. H-tone may surface phonetically as high, high-falling, or downstepped high pitch. L-tone may surface as low, low-falling, or mid pitch. Voiced obstruents function pervasively as depressor consonants, pulling the pitch of a preceding high tone to high-falling, mid, or low pitch. Downdrift occurs, as well as depressor-consonant induced downstep. All noun and verb roots have a lexically assigned tone melody whose surface realization may change according to grammatical context. Stem-level and phrase-level tonal processes are complex and appear to count metrical feet in the (re)assignment of tones. At the clause level, at least three intonational patterns can be observed: the indicative, interrogative, and the 'solicitive'.

Morphologically, Ik is mostly agglutinative. Roots and affixes can typically be separated out linearly. Except for lexicalized prefixes on words borrowed from other languages, Ik is exclusively suffixing. On the continuum between analytic and polysynthetic, Ik ranks as moderately synthetic: Only three suffixes can be attached to noun roots, while up to six can be attached to verb roots (one more if one counts root reduplication).

In terms of form, verb roots tend to have a (V)(C)VC syllabic shape. Verb roots can be partially or fully reduplicated, though only full reduplication is productive. Ik verbs may be intransitive, transitive, ditransitive, or ambitransitive. Tonal verbal minimal pairs signify only slight semantic differences, and a small subset of verbs are inherently pluractional.

A basic morphological division in the verbal system is realis-irrealis. This division is posited more on the basis of morphology than semantics. Other

verbal extensions include suffixes to nominalize the verb, give it directional deixis, subject agreement, or non-core argument reference. And yet other suffixes give the verb modal, aspectual, valency-changing, or polarity properties. Most attributive (descriptive) notions are handled by intransitive 'adjectival' verbs in Ik. Tense, contrary to aspect and modality, is communicated by clitics and lays out a three-level time deixis in both the past and non-past. Ik uses a variety of strategies to express epistemic status.

The majority of Ik nouns have a CVC(V) or CVCVC(V) syllable shape. Roughly one third of the nominal lexicon begins with the Teso-Turkana gender prefix *ɲV-* (or one of its locative allomorphs) which as been lexicalized in Ik. Noun roots may also be partially or fully reduplicated, though neither strategy is productive in the language. Each noun has a lexical tone melody that can change in various morphological and syntactic contexts. Nominal suffixes include a two types of singulative, five types of plurative and eight case endings. The language's limited noun suffixation is counterbalanced by productive (pro-)nominal compounding.

Case—an interface of phonology, morphology, syntax—is a pan-systemic feature of Ik grammar. Not only must every noun be inflected for case, but even some of the verbal suffixes appear to be grammaticalized case markers. The Ik case system is split-accusative: Direct objects are marked in the nominative case with 1/2-person subjects and in the accusative with 3-person subjects. In the Ik system, eight cases are observed: nominative, instrumental, ablative, genitive, accusative, dative, copulative, and oblique.

Nouns and verbs represent the two open lexical word classes in Ik. Other, closed word classes include the pronouns, quantifiers, demonstratives, adverbs, conjunctions, interjections, infantile imperatives, ideophones. The seven personal pronouns incorporate three persons, three numbers, and an inclusive/exclusive distinction in first person plural. Non-verbal quantifiers and adverbs exist but are very few. Demonstratives provide spatial deixis in three degrees of distance (near/medial/far) and temporal deixis in four

degrees of time (tense). Other demonstratives provide anaphoric reference for either actual discourse or a shared deictic context. Lastly, Ik makes wide use of ideophones to colorfully enhance the meaning of verbs.

In noun phrases, modifiers follow the head noun. Modifiers consist of genitive noun phrases, adjectival verbs, quantifiers, and other relative clauses. Relative pronouns mark the number of their noun head as well as the tense of the predicate in the relative clause. The fullest statement of the 'common argument' of a main and relative clause is in the main clause. Like in other subordinate clauses, the syntax of relative clauses is marked.

The basic, unmarked constituent order of Ik main clauses is VSO (VS/VAO), but SVO is attested in subordinate clauses. In a main clause, the verb comes first, followed by a tense clitic (if present) and then the subject and object(s) if explicitly mentioned (both subjects and objects may be left implicit in Ik.) Peripheral arguments come next, followed by any adverbs.

Clause chaining is a definitive aspect of Ik discourse. An initial controlling clause sets the TAM context for the chain of clauses to follow. Clause chains may consist of one or many more sequential clauses or one or two simultaneous clauses. Chained simultaneous clauses may be used as a complementation strategy and in bi-clausal comparative constructions.

The Ik lexicon exhibits several recognizable substrata. Perhaps the oldest substratum can simply be called 'Ik' since it has yet to be tied to any other subgroup within Africa. Ik of course shares numerous lexemes with the other Kuliak languages, Nyang'ía and So. A handful of lexemes have parallels in Didinga (Surmic). A fair number of Ik lexemes appear to be pre- or proto-Nilotic, while very many more are obviously cognate with forms in Eastern, Southern, and even Western Nilotic. A substantial number of core lexemes are also traceable to Afroasiatic Cushitic languages like Afar/Saho, Dhaasanac, Ts'amakko, and West Rift Cushitic. Finally, English (Germanic) and Swahili (Bantu) have in recent centuries loaned quite a few lexemes.

In conclusion, perhaps some of the most typologically interesting things about Ik are its rich consonant inventory (including ejectives and lateral fricatives), vowel harmony (with binary /a/), tone, numerous pluratives, meta-categorical case system, tensed demonstratives, morphologically-based realis-irrealis distinction, directional suffixes, and clause chaining.

The following short annotated text is provided to further illustrate some of the salient features of Ik grammar. Trace each number to its corresponding explanatory comment in the paragraph that follows.

(9)   Oŋor ńda Tulú ('The Elephant and the Hare')

> *Noo sayo kainikee nuu iluɲuƙotat,*
> noo[1]   say-o[2]   kaɪn-íké-é[3] = nuu[4]   ilúɲ-úƙot[5]-át-[a6],
> CONJ.PST3   some-INS   year-PL-GEN = REL.PL.PST3 pass-COMP-3PL-REAL
> In some years gone by,

> *iya noo Tulua nda Oŋor.*
> i-a[7] = noo[8]   tulú-a[9]   ńda   oŋor[10]
> be-REAL = PST3   hare-NOM   and   elephant[OBL]
> there was a Hare and an Elephant.

1 Tensed relative pronouns like *noo* (remote past) have been grammaticalized into use as conjunctions introducing temporal subordinate clauses. 2 The instrumental case marker {-ɔ} is found on noun phrases expressing time concepts. 3 This noun phrase in the genitive case modifies the preceding noun *sayo*. 4 Relative pronouns are enclitics that convey both the number of their heads (in this case plural) and the tense of the relative clause (in this case remote past). 5 The directional suffixes, like the andative {-ʋƙɔtí-}, are also used aspectually, here as completive. 6 Because there is a brief pause between the subordinate and main clauses, the final morpheme, here the realis suffix {-a}, is devoiced. 7 The verb comes first in unmarked main clauses. 8 Tense enclitics come between the verb and the following

subject(s). 9 The nominative case suffix {-a} marks the subject (A/S) of indicative main clauses. 10 Oblique (peripheral) arguments, like those following the coordinating conjunction *ńda*, are marked with the oblique case in Ik, which is zero morpheme.

The text continues below with more annotated features:

(10)   *Mitiya noo koto Oŋora nda Tulu ebaik,*
        mit-i[11]-a = noo = kótó[12]   oŋor-a   ńda tulú   éba-ik^o[13]
        be-PLUR-NOM = PST3 = ADV elephant-NOM and hare[OBL] friend-PL[OBL]
        The Elephant and the Hare were friends,

        minimosatie d̶ita liaatikoe.
        mín-ímɔ́s[14]-áti[15]-e[16]   d̶ítá   liaát-íkó-^e
        love-RECIP-3PL-SIML   like   brother-PL-GEN
        loving each other like brothers.

11 The pluractional suffix {-í-} encodes grammatical number in the verbal system. In this case, it conveys the habitual nature of the animals' friendship. Being dominantly [+ATR], it has also harmonized the preceding [-ATR] root *mɪt-* 'be'. 12 The adverbial (=)*kɔtɔ* is an important clause connector and is one of the few indicators of contrastiveness or counter-expectation (though here that meaning is not in focus). 13 The oblique case zero-morpheme often allows the underlying form of morphemes to surface, here the plurative {-íkó-}. 14 The reciprocal suffix requires high tones on the preceding root, regardless of its underlying tone melody. Functionally, it detransitivizes a transitive clause by conflating the A and O into S. 15 The 3PL subject-agreement suffix {-áti-} is one of the language's opaque [+ATR]-dominant morphemes that block leftward harmony to the stem. 16 The simultaneous aspect marker {-kɛ} is used to mark chained clauses like this one that express circumstances attending the main clause.

A final excerpt from this story brings out a few more grammatical features:

(11) *Na konto odowi, toɗoyoo didia watik,*

na[16]=kón-ít[17]-ó ódou-i[18] toɗó-y-óo[19] didi-a watí-k[a20]

CONJ=one-SING-INS day-GEN begin-3SG-SEQ weather-NOM raining-ACC

One day, it started raining,

itsyaketuo ja roɓa ni tokobak.

itsyák[21]-ét[22]-u[23]-o=ja roɓ-a=ni[24] tɔkɔba-k[a]

begin-INCH-3SG-SEQ=ADV people-NOM=DEM.PL cultivating-ACC

and these people (the Elephant and Hare) started cultivating.

16 The proclitic conjunction *na=* introduces temporal clauses within a sequential clause chain. Such temporal clauses are tensed relative to the preceding and following sequential clauses; they do not express absolute tense. 17 The singulative **-ɪt/it* is no longer productive and can only be found in lexemes and lexicalized expressions like *kónító* 'on one…'. 18 The genitive case marker {-ɛ} is raised to /ɪ,i/ after high back vowels. 19 When the 3SG suffix {-ɪ-} is desyllabified into a glide, the following vowel, in this case the sequential aspect marker {-(k)ɔ}, is lengthened compensatorily. The sequential aspect suffix marks chained sequential clauses that depend on an initial controlling clause for TAM specification. 20 If the subject of a transitive verb is 3-person, any objects will be in the accusative case. 21 Younger speakers increasingly use Teso-Turkana borrowings, here the verb *itsyák-* in place of the Ik *ɪsá-* 'begin'. 22 The venitive directional suffix {-ɛt-} is also used aspectually to convey inchoativeness. 23 A high front vowel, like this 3SG {-i-}, is backed to /u/ when followed by /ɔ,o/. 24 Ik demonstratives indicate number as well as tense.

1.2.3 Lectal variation and language contact

Lectal variation is minimal among Ik speakers. This is due to the combined factors of the Ik's small numbers, proximity, mobility, and ethnic solidarity. No lectal varieties that could be described as dialects are known to exist. What little variation does occur is mainly in phonology, tonology, and lexis.

For example, speakers from *Loúsúna*, a village on the edge of a gorge between *Tímu* and *Kámion*, tend to reduce the affricates /ts/ and /ts'/ to [s] and [s']. Thus the common greeting *Atsída awóo?* 'Have you come from home?', rendered as *Asída awóo?,* quickly identifies speakers from *Loúsúna.* On the side of lexis, speakers from certain areas, like *Kámion* for example, tend to use more Teso-Turkana loanwords than speakers from other areas. The general consensus among the Ik is that the Ik spoken around *Tímu* Forest in the south is 'pure' Ik, i.e. less influenced by Teso-Turkana.

A second type of lectal variation involves sound shifts between speakers of different generations. These demographically defined lects, or 'chronolects', were first described by Heine (1983, 1999). As described by Heine, these chronolects differ in their inventory of contrastive consonants, leading to splits and mergers of several sounds. The most easily recognizable difference between chronolects is the loss of lateral fricatives in younger generations. But chronolects also differ in tonology. Younger speakers tend to employ high-tone insertion more than their parents' generation (see §3.2.4).

Various linguistic traits suggest that Ik used to be in contact with Cushitic (Lamberti 1988) and Southern Nilotic (Rottland 1983) languages, whereas nowadays its contact is with English, Swahili, and the Teso-Turkana (including Dodoth, Jie, Toposa, and Turkana). Beyond areal contact through trade and travel, the cultural dominance exerted by the Teso-Turkana peoples has strongly influenced the Ik language. As many Ik children enter their teen-age years, they begin learning a Teso-Turkana language during trips outside Ikland, stints at non-Ik schools, or periods when a non-Ik guest stays at their home. Thus many Ik adults have a functional command of one or more Teso-Turkana languages, though few become very fluent.

Contact with Swahili comes about in three ways. First, over the years many Ik have lived in Kenya, having gone there for school, work, or to escape some catastrophe in their homeland. Typically, the longer they remain in Kenya, the more fluent they become in Swahili. Second, since one of the

languages of the Ugandan army is Swahili, the presence of soldiers patrolling Ikland leads to contact with Swahili. Third, a few Swahili songs are sung in churches. As a result of these three inroads, Swahili functions as a useful but limited language of wider communication among the Ik.

English touches the Ik by being the national language of Uganda, the language of national media and education, of inter-ethnic business, of religious materials, and of general cultural aspiration toward the West. Ik people who have completed on average five–seven years of primary education manage to get by in English. Fluency of course increases the longer they stay in school. Some Ik, especially men—as women have had much fewer educational opportunities—become reasonably adept at English with little to no formal education. For most Ik, learning these contact languages has been more out of survival necessity than leisure or pleasure.

1.2.4 Vitality

In contrast to the other, endangered Kuliak (Rub) languages, Ik language is still vital. According to the EGIDS scale (Simons & Lewis 2010), Ik is a level 6 'vigorous', since "the language is used by all generations and the situation is sustainable." Small children are still learning it as their mother tongue and typically remain monolingual for at least six years. After that, they may begin to pick up English or Teso-Turkana from school and/or travels outside Ikland. Ik young people face a subtle pressure to learn Teso-Turkana as a language of wider communication. It is especially useful in trade, travel, and simple physical survival. A fair number of Ik children attend primary schools in towns and thus have to learn one of these languages in order to learn from the teachers. But adding Teso-Turkana, English, or Swahili (in Kenyan schools) to the repertoire of Ik youth has not so far diminished the vitality of Ik in the homeland. There, Ik is still spoken in all domains of life, with the exception of local community schools (if teachers are non-Ik) and in Christian churches (with non-Ik songs or visiting non-Ik preachers).

But perhaps the more important indicator of Ik's vitality is the positive attitude the Ik have toward their language. It is a symbol of their ethnic identity and solidarity. They revel in their ability to communicate in a language that no outsider, including their long-time Teso-Turkana enemies, can understand in the least. It is a rightful means of surviving and subverting the oppression they have so often experienced.

Recognizing their language as a unifying cultural asset, the Ik today are eager to see their language taught (alongside English) in schools and used in churches, since those are the two domains which present the greatest threat. The Ik do also take great pride in being able to speak other languages, but this is not in opposition to speaking their mother tongue. Teso-Turkana languages and cultures have had massive influence on Ik language and culture, but the Ik have managed to absorb the impact. This they did by accommodating foreign influences to the point needed for physical survival but resisting at the point needed for ethnic and linguistic survival. With increased language development efforts, the Ik language should remain strong and vital at least well into the present century.

1.2.5 Previous works

It goes without saying that this grammar of Ik builds on the good linguistic work of many others. The first of these others, Wayland (1931), compiled a short list of Ik words on a geological survey through the area. In his article, he refers to the Ik as the 'Wanderobo', a common term for non-pastoralist peoples bordering the lands of Eastern Nilotes. Because his word list includes several items not immediately recognizable as Ik, it fostered a belief that persisted for years that 'Dorobo' might be a fourth, now extinct Kuliak language. Careful scrutiny, however, reveals that Wayland's 'Dorobo' wordlist is most likely Ik, poorly transcribed and poorly glossed (Schrock, to appear; also Serzisko 1992:7)). The implication is that there never was a fourth Kuliak language called 'Dorobo', though credit is still due Wayland for recording the first information on the language.

As the years progressed, other linguists undertook to describe Ik. This led to several early grammar sketches, each with different emphases, including Crazzolara 1967, Heine 1971, Tucker 1971-73, and Heine 1975. Once Ik became known to the linguistic world, the question of Kuliak internal and external classification arose. This question was first addressed by Greenberg 1963, then Heine 1976, and in the same year Bender 1976, followed later by contributions from Ehret 1981, Fleming 1983, and Lamberti 1988.

The first attempt at a full grammar of Ik was Heine 1983, which unfortunately was never published. From there, the mantle of Ik grammar study was taken up by Fritz Serzisko, a colleague of Heine's at Cologne. Serzisko published a series of books and articles on Ik and on various linguistic topics with Ik as the main source of data (Serzisko 1985, 1985-87, 1987, 1988, 1989a-b, 1992, and 1993a-b). Heine 1990 also appears, a study of the dative case in Ik and Kanuri. Later in the decade comes Heine & König 1996, an unpublished revision and expansion of Heine 1983.

In the 1980s and '90s, formerly SIL linguist Richard Hoffman began working on the language. Although he never published on it, he gained a thorough knowledge of Ik grammar and began working out a practical orthography. Also in the 1990s, Heine returned to Ik and published the first Ik-English dictionary (1999) that included an ethnographic sketch, phonology sketch, and an ethnobotanical section. The new millennium began with König's lengthy exposition of Ik case (2002) and SIL's sociolinguistic survey of the Ik area (2007). König 2008 refined her 2002 analysis of Ik case and fit it into a broader and much-needed discussion of case across Africa.

Since 2008, I have been personally conducting linguistic research on Ik, under the auspices of SIL Uganda. This research has led to a number of papers, including a foray into nominal tone (2011a), a phonological sketch (2011b), and a description of the Ik instrumental case (Schrock 2014).

1.3   Research background

Seen in light of what has already been written on Ik, the need for a fuller grammatical description arose from the practical challenges of language development, as well as from a desire to contribute to linguistic science. On the side of language development, creating a practical orthography has required a growing knowledge of phonology and morphology, just as the creation and translation of literature will require knowledge of lexis, syntax, and discourse. Attempts to develop the language practically under SIL kept bumping up against newly discovered allophones and unidentified morphemes. At last it seemed good to consolidate previous research and add new findings into one comprehensive treatment. Doing so fulfils the second desire—adding to linguistic science—by documenting the last vital member of the dwindling Kuliak (Rub) subgroup and describing its unique features.

1.3.1 Methodology

The aim reflected in this book has been to research and analyze Ik grammar in terms of Basic Linguistic Theory (BLT) expounded in Dixon (2010-2012). BLT is a theory of linguistics as a natural science that "consists in the study and comparison of the grammatical patterns of individual languages" (Dixon 2010a:5). This approach makes eclectic use of the classical grammatical tradition and the growing body of generally accepted linguistic terms, concepts, and categories. The hope of using this methodology is that the unique genius of the Ik language might be brought to the fore without being overly constrained by any particular formal theory. Insofar as this hope is realized in the following pages, people from different theoretical backgrounds should be able to easily follow it. Given the diverse theoretical orientations of prior linguists who have worked on Ik, this seemed to be the best way to capture the language in a grammatical description.

Also, this grammar is primarily a form-based, analytical grammar. It is form-based in that it seeks to exhaustively list and describe all the grammatical forms of Ik: phonemes, morphemes, syntagmemes, and

lexemes. As much as possible, the functions of the forms are discussed as well. By the same token, the grammar is analytical in that it breaks apart the language bit by bit. In this sense it is designed to assist one in the more passive skill of interpreting or decoding the Ik language. The more advanced and culturally relevant skill of using or encoding the language appropriately will have to await a work building on a much greater knowledge of the language's semantics, pragmatics, cultural matrix…and people.

In describing the forms found in Ik, an eye has been kept toward diachronic origin and explanation. The need for this element of my approach is captured eloquently in the following quote: "Because grammar is always emergent but never present it could be said that it never exists as such, but is always coming into being. There is, in other words, no 'grammar' but only 'grammaticization'—movements toward structure which are often characterizable in typical ways." (Hopper 1987:148, cited in Serzisko 1992).

Diachronic exploration requires comparison with other languages in the area. To this end, I have tried—as time and opportunity allowed—to seek parallels for Ik forms in the non-Bantu languages of East Africa. Due to limited library access, this comparison focused primarily on Dhaasanac (Tosco 2001), So (Carlin 1993), and Turkana (Dimmendaal 1983).

1.3.2 Fieldwork

Fieldwork for this grammar was carried out intermittently from March 2008 until July 2014. From 2008-2009, my wife and I lived in a Baptist mission compound surrounded by Dodoth (Karimojong) people. Collecting Ik data was limited to occasional visits by four educated Ik men: †Lochiyo Gabriel, Lokwang Hillary, †Lopuwa Paul, and later Longoli Philip. From time to time, day-trips were made to the Ik area. In Kaabong, I focused on Ik phonology, collecting the 1700-word Comparative African Wordlist as well as SADUL grammatical questionnaires (Bouquiaux & Thomas 1992).

In late 2009, we finally were able to move to Ikland, to a compound with an Ik village less than 100 meters away. Although still living in a private compound, our contact with Ik speakers increased significantly. During the first two months, SIL lexicographer Ron Moe and I conducted a lexicography workshop involving fifteen Ik men and women. Many of the words in Appendix B were collected during that workshop. And since we lived there, language learning and text collection increased from that point on.

For much of 2010, Longoli Philip became a regular language informant, working with me on various aspects of the language development program. Longoli completed Form Two of secondary school but has had opportunity for many types of training over the years, including in linguistics. He had worked previously with Bernd Heine, Fritz Serzisko, and Richard Hoffman. In late 2010, Longoli Philip and I took part in a tone workshop led by SIL tone specialist Keith Snider. Philip was the only Ik speaker in Nairobi at that time. For six weeks we elicited and analyzed tone data together.

For the next year and a half (2011-2012), Longoli Philip continued to work with me as my main teacher of Ik. American linguist Kate Shugart visited in late 2011, and along with Amber Schrock collected numerous oral histories that were later transcribed by Longoli Philip. In January 2012, two other men, Komboni Daniel and Lokwameri Sylvester, began interacting with us and providing more data through a translation training course we held.

Finally, after six months away from the Ik area, we returned to Ikland to intermittently fill in gaps in the data, revise hypotheses, and finish writing during the whole year of 2013. From the end of 2013 through the early part of 2014, Lomeri John Mark—at last returned to Ikland—provided crucial last-minute help in answering grammatical questions, checking examples, and filling in paradigms. In March-April of 2014, a group of ten Ik men participated with me in an orthography workshop. More data and insights came from our enjoyable interaction. Research then concluded in July 2014.

1.3.3 Data

The data used in this description of Ik comprises approximately 6,000 words (mostly nouns and verbs) in a FLEx lexical database and over 100 texts of different genres and varying numbers of pages. Additional data was collected throughout the fieldwork period through direct elicitation, uncountable scribbled notes, and lots of careful listening. When data is quoted from previous works, the source is indicated with the example. Otherwise, data comes from my research, usually through Longoli Philip and Lomeri John Mark or through daily interactions with Ik neighbors.

This book is the first step in making my data widely accessible. Anything I have is available upon request (betsoniik@gmail.com), with the disclaimer that in may be poorly written, transcribed, or analyzed! The Ik 1,700-word Comparative African Wordlist is available at the Comparalex website (http://comparalex.org/). And plans are being made to eventually produce a fuller Ik linguistic lexicon, a non-linguist's Ik-English dictionary, one or more volumes of annotated Ik texts, and a pedagogical grammar of Ik.

1.3.4 Orthography

Currently two orthographies exist for Ik: 1) a Linguistic Orthography (LingO) and 2) a Popular Orthography (PopO). This 'dual orthography' situation arose from the differing needs of different language practitioners and is described in detail in Schrock (In preparation). The LingO is to be used in grammars and dictionaries, while the PopO is to be used for any material produced for the general (future) Ik reading community.

The PopO uses only five vowels and does not represent tone or voiceless vowels. One consonantal difference between it and the LingO is that it represents /ʃ/ as <x>. The PopO is used in the first line (in *italics*) in all the example sentences and texts in this grammar. An adapted LingO is used in the second line of examples and texts. It represents all thirty consonants and nine vowels, as well as assimilated nasals, tone and voiceless vowels.

2 Segmental Phonology

Ik segmental phonology involves a relatively rich inventory of contrastive consonants and vowels and phonological and morphophonological variations. Although a full account of Ik phonology is beyond the scope of this book, its basics are offered here as a gateway into the broader grammar.

2.1 Consonants

Ik uses thirty (30) contrastive consonants, presented in (1) below. This is a high number compared to the neighboring Eastern Nilotic language Turkana which has only seventeen (Dimmendaal 1983:7). But it is not so high in the greater Rift Valley language area where the East Cushitic language Dhaasanac has twenty-five (Tosco 2001:16) and the South Omotic language Dime has thirty-three (Mulugeta 2008:9). Unlike Turkana, but like Dhaasanac and Dime, Ik has glottalic (im)plosives in addition to pulmonic.

(1)   *Ik contrastive consonants*

	Labial	Alveolar	Lateral	Palatal	Velar	Glottal
Plosives, vl.	p	t			k	
Plosives, vd.	b	d			g	
Implosives	ɓ	ɗ		ʄ		
Ejectives		ts'	(tl')		ƙ	
Fricatives, vl.	f	s	(ɬ)	ʃ		h
Fricatives, vd.		z	(ɮ)	ʒ		ɦy
Affricates, vl.		ts		c		
Affricates, vd.		dz		j		
Liquids		r	l			
Nasals	m	n		ɲ	ŋ	
Glides	w			y		

With Table 1 still in mind, note that those sounds whose orthographic symbols differ from the IPA include: ɉ [ʄ], ƙ [k'/ɠ], c [tʃ], j [dʒ], y [j]. Three sounds in Table 1—tl', ɬ, lʒ—are in parentheses because they are all but lost from the form of Ik spoken at the time this grammar was being written.

2.1.1 Consonant contrasts

Some evidence for the existence of the thirty contrastive consonants comes from sets of segmentally similar nouns (in the NOM case) like those below. High tone is marked with an accent, while low tone is unmarked. Low tone before a floating high tone is pronounced with mid level pitch (see §3.2):

(2)	pakwᵃ´	'cave'
	bakutsᵃ´	'chest'
	ɓaláŋ	'Toothbrush tree'
	fádwᵃ	'scale'

(3)	taɓᵃ´	'boulder'
	dakwᵃ´	'tree'
	ɗam´	'brain'

(4)	karatsᵃ	'stool'
	gasar	'Cape buffalo'
	ƙaƙᵃ	'hunt'

(5)	ts'ol	'drop'
	sore´	'boy'
	zɔtᵃ	'chain'
	tsól	'Bee-eater (bird sp.)'
	dzon	'well'

| (6) | ram | 'pile of dried *Euphorbia* branches' |
| | lar | 'tobacco pipe' |

(7)   matáŋ   'cheek'
       nakús   'sleeping place'
       ɲatalˊ   'custom'
       ŋamurˊ   'duiker'

(8)   yáŋ   'my mother'
       wa   'greens'

For the palatal set, which is considerably rarer, sufficiently similar nouns
are not available for all the sounds, so a few verbs have to be included:

(9)   ɟɛɟ-   'stay'
       jeje   'leather mat'
       céŋ   'joke'
       ʃaƙwᵃ   'meat left on skinned hide'
       ʒaɓúd-   'be soft'

2.1.2 Consonant realizations

All consonants except for glottals are produced with an egressive airstream
from the lungs. The glottals are made with an airstream produced in the
larynx—implosives with an ingressive airstream and ejectives with
egressive. The voice quality and articulators (active and passive) of all Ik
consonants, as well as notes on phonetic realization, are provided below.

/p/   is a voiceless bilabial plosive.
/t/   is a voiceless lamino-alveolar plosive [t̪].
/k/   is a voiceless dorso-velar plosive.

/b/   is a voiced 'fortis' bilabial plosive [b̥].
/d/   is a voiced 'fortis' lamino-alveolar plosive [d̪̥].
/g/   is a voiced 'fortis' dorso-velar plosive [g̥].

All six Ik plosives may be unreleased before a pause. This only occurs when a pre-pause devoiced vowel is deleted entirely. Moreover, the three voiced plosives are (partially) devoiced before a pause or a devoiced vowel. Thus the voiceless plosives have [p˺, t˺, k˺] as allophones, and the voiced plosives have devoiced [b̥, d̥, g̥] and unreleased devoiced [b̥˺, d̥˺, g̥˺] as allophones.

The lamino-alveolars /t, d/ are audibly fronted, nearly dental, but not quite. For some speakers, this fronting is more pronounced, the tongue even being visible against the teeth. Perhaps this is an areal feature: Dhaasanac contrasts 'dental oral stops' and 'post-alveolar stops' (Tosco 2001:16), while in the Eastern Jebel language Gaahmg, "the dental stops are made with the tongue tip touching the back of the top teeth" (Stirtz 2004:128).

The voiced plosives /b, d, g/ can also be described as 'fortis' in the following sense: They sound as though they are made with greater supralaryngeal pressure and slightly delayed release, especially in slower speech. According to De Jong, a fortis-lenis distinction is an areal feature in at least Southwest Surmic languages like Didinga and Eastern Nilotic languages like Lopit and Lotuxo (2004:146). With the prevalence of ejectives in Ethiopian languages, one wonders if for Ik these fortis plosives have their origin in ejectives like /p'/ and /t'/ that are long since lost.

> /ɓ/   is a voiced bilabial implosive.
> /ɗ/   is a voiced apico-post-alveolar implosive [ɗ].
> /ʄ/   is a voiced lamino-palatal implosive [ʄ].

Like the plosives, the implosives are partially devoiced before a devoiced vowel and may optionally be unreleased. This means they have [ɓ̥, ɗ̥, ʄ̥] and [ɓ̥˺, ɗ̥˺, ʄ̥˺] as allophones. Also, the apico-post-alveolar /ɗ/ sounds nearly retroflexed at times (cf. /ɗ/→[ɖ] of Dhaasanac, Tosco 2001:22).

/ts'/ is a voiceless lamino-alveolar ejective affricate [tş̫'].

(tl') is a voiceless lamino-alveolar lateral ejective affricate [tl̫'].

/ƙ/ is a voiceless dorso-velar ejective [k'/ɠ].

Uncommon in the area, Ik ejective affricates /ts'/ and (tl') are a link to South Cushitic languages that also have them (Mous 2012:356). The lateral ejective affricate (tl') now seems entirely lost from the language. In five years of fieldwork, the sound was never once heard. Yet, as recent as 1999, it was still considered a rare but present phoneme (Heine 1999). Based on reconstructions, the sound is replaced by the palatal implosive /ʄ/, as in *tl'ɔt → ʄɔtᵃ 'Adenium obesum (plant sp.)' and *tl'ábú-gwa → ʄábú-gwa 'guinea-fowl'. A similar trend is observed today among young children who substitute /ʄ/ for /ts'/ as in ʄúkɔtíakᵃ 'I have eaten it up' versus áts'úkɔtíakᵃ.

The dorso-velar ejective /ƙ/ has several allophones including a dorso-velar voiced implosive [ɠ] and fronted and backed variants according to following vowels. Linguists have differed on which of the two sounds (ƙ/ɠ) is phonemic and which is allophonic. Tucker (1971) was the first to mention the implosive as a phone in Ik along side the ejective, while Heine (1999) claims that the implosive is the phoneme that has replaced the ejective still used by elderly speakers. Contrary to what Heine claimed, the velar ejective is still very much in use today, though the implosive is a common allophone of it. Younger speakers often seem to prefer the implosive, and it tends to show up in faster and more casual speech. The ejective may even weaken to the point of becoming merely a glottal stop [ʔ] (see §2.3.3).

/f/ is a voiceless labio-dental fricative.

/s/ is a voiceless lamino-alveolar fricative [ş̫].

(ɬ) is a voiceless lateral fricative.

/ʃ/ is a voiceless lamino-post-alveolar fricative [ʃ̫].

/h/ is a voiceless glottal fricative.

The voiceless lamino-post-alveolar fricative /ʃ/ is the heir of the old Ik voiceless lateral fricative (ɬ), which is now only used by the eldest of speakers. As such, (ɬ), like (tl'), is considered marginal. Any given speaker tends to use either (ɬ) or /ʃ/ but not both. Occasionally one may hear a middle-aged Ik speaker pronounce /ʃ/ with a slight laterality. Also, for younger speakers and those in contact with Teso-Turkana languages, (which lack [ʃ] as a phoneme), /ʃ/ may freely vary with [tʃ] or [dʒ].

/z/   is a voiced lamino-alveolar fricative [z�].
(ɮ)   is a voiced lateral fricative.
/ʒ/   is a voiced lamino-post-alveolar fricative [ʒ�].
/ɦy/   is a lightly palatalized voiced glottal fricative [ɦʲ].

The voiced lamino-alveolar fricative /z/ is partially devoiced before a devoiced vowel, making [z�] an allophone. Also, some speakers, like those with more influence from Teso-Turkana languages, may freely alternate /z/~/s/. The voiced lamino-post-alveolar fricative /ʒ/ is one of two heirs of an old Ik voiced lateral fricative (ɮ), which may now only be heard rarely among the most elderly speakers (the reason it is considered marginal). (ɮ) split into /ʒ/ and /ɦy/, probably within the last 50–100 years.

The phonetic nature of /ɦy/ has been extremely hard to ascertain. What is clear is that it never surfaces only as [ɦ] without tongue being raised toward the palate. Perhaps the tongue raising is phonetic remnant of the tongue position of (ɮ), while the voicing of /ɦy/ is a phonetic remnant of the voicing of (ɮ). Lexemes containing /ɦy/—*ɦyɔ* 'cow', for example—have been transcribed variously as [ɦìɔ̀], [ɦɛ̀ɔ̀], and [ɦʲɔ̀]. Of this sound, Heine said, "word-initially, y is pronounced as a sound intermediate between a palatal semivowel and a voiced glottal fricative" (1999:15). As such, /ɦy/ could be represented phonetically as [ɦʲ] or [ᶣj]. For some speakers, especially younger ones, /ɦy/ may lose either its voicing or its stridence, leading to free variants [hj] or simply [j]. /ɦy/ is only found word-initially.

/ts/   is a voiceless lamino-alveolar affricate [t̺s̺].
/c/   is a voiceless lamino-post-alveolar affricate [t̺ʃ].

/dz/   is a voiced lamino-alveolar affricate [d̺z̺].
/j/   is a voiced lamino-post-alveolar affricate [d̺ʒ].

The voiceless affricate /ts/ is replaced by /s/ by some speakers, particularly from certain areas. The voiced affricate /dz/ has the partially devoiced allophone [d̺z̺] before devoiced vowels before a pause. This does not affect /j/ because it is only found in word-initially and word-medially.

/r/   is a voiced lamino-alveolar rhotic flap/tap [ɾ̺].
/l/   is a voiced lamino-alveolar lateral approximate [l̺].

The rhotic flap /ɾ/ may be rolled [r] in any position but especially in word-medial and word-final positions. Emotional intensity and rhetorical flourishes in speech seem to increase the frequency of rolling. Also, before devoiced vowels, the rolled flap is devoiced [r̥] and often lengthened [r̥:]. The lateral approximate is partially devoiced [l̥] before a pause or a devoiced vowel and may optionally be unreleased [l̥˺].

/m/   is a voiced bilabial nasal.
/n/   is a voiced lamino-alveolar nasal [n̺].
/ɲ/   is a voiced lamino-palatal nasal [ɲ̥].
/ŋ/   is a voiced dorso-velar nasal.

/w/   is voiced bilabial/dorso-velar glide.
/y/   is a voiced lamino-palatal glide [j̺].

The glides are partially devoiced [w̥, ẙ] before a pause or a devoiced vowel, and depending on syllabification, may occasionally be analyzed as vowels.

2.1.3 Consonant distribution

Most Ik consonants can occur in any position. However, nasals, glottal fricatives, and the affricate /j/ have distributional restrictions, as do implosives vis-à-vis their plosive counterparts. First, nasals that immediately precede another consonant must be made at the same place of articulation as that consonant. Some of the personal pronouns provide evidence of this restriction. In the left column of (10), the pronouns are shown with an archi-phonemic nasal (N), followed by surface realizations. Note the velar, alveolar, and palatal places of nasal articulation in the right column:

(10)	Nkᵃ	I:NOM	→	[ŋ́kạ̥]
	Ncⁱ	I:OBL	→	[ɲ́tʃị̥]
	Ngwᵃ	we:NOM	→	[ŋ̄gw̥ạ̥]
	Ntᵃ	they:NOM	→	[ń̩tạ̥]

An exception to nasal assimilation occurs when a nasal-stop sequence arises from vowel syncope, as when *maraŋ-it-et-és* 'to make good' → *maraŋ-t-et-és*.

Second, the voiceless glottal fricative /h/ only occurs word-initially in Ik. Historically, this restriction may be related to the universal tendency to avoid onsetless syllables, as in Dhaasanac (Tosco 2001:42), Turkana (Dimmendaal 1983:45), and So (Carlin 1993:15). Unlike in Dhaasanac, the Ik glottal fricative is a phoneme, but even so, it is rare, occurring in less than twenty noun and verb roots. Currently, Ik does not show a strict onset principle that is consistently satisfied by a glottal fricative. This can be seen from the pair *hɔn-* 'drive' and *oní-* 'abandoned village' in which /h/ and zero are clearly contrasted word-initially. Nevertheless, speakers do prefer an onset before the back vowel /u/, giving words like *úd* 'grass sp.' and *úg-* 'dig' surface pronunciations like [ʷûɗˀ] or [ʰûɗˀ] and [ʷûɠˀ] or [ʰûɠˀ].

The voiced glottal fricative /ɦy/ also only occurs word-initially. This restriction was created when (ʒ) split historically to /ɦy/ word-initially and /ʒ/ elsewhere. Examples of this include *ɦyɔ* 'cow' and *góʒowᵃ* 'mist'.

Third, the voiced lamino-post-alveolar affricate /ɟ/ is attested only in word-initial and word-medial positions. As a phoneme, it is quite rare, known to be present in only five noun lexemes: *jeje* 'leather mat', *jíɟe* 'opposite side/slope', *lejé* 'mental illness', *ɲjín* 'we INCL.', *ɲájarán* 'sewing machine'. Similarly, in nearby Dhaasanc, /ɟ/ is a very rare sound (Tosco 2001:17).

Lastly, implosives/ejectives and their plosive counterparts at the same place of articulation do not occur in the same root. The only exceptions are /ɗ/ and /d/, presumably because their places of articulation differ slightly. The three instances are *doɗᵃ* 'vagina', *dʊɗɛ́r* 'water-beetle', and *ɲoɗódᵃ* 'ant-bear'.

2.2 Vowels

Ik uses nine (9) contrastive vowels, shown in (11) below. These include the low vowel /a/ and four pairs whose members differ only in Advanced Tongue Root [ATR] value. In its basics, the Ik vowel system is quite similar to those of Surmic languages like Didinga and Eastern Nilotic languages like Turkana. But it differs substantially from others in the wider area like those of the Cushitic Dhaasanac and Omotic Dime which lack ATR distinctions.

(11)   *Ik contrastive vowels*

	Front		Central	Back	
	+ATR	-ATR	-ATR	+ATR	-ATR
High	i	ɪ		u	ʊ
Mid	e	ɛ		o	ɔ
Low			a		

2.2.1 Vowel contrasts

Some evidence for the existence of nine contrastive vowels comes from segmentally similar pairs of nouns like the following:

(12)　*Evidence of vowel contrasts*

/i–ɪ/	ínwᵃ	'animal'	ɠidᵃ	'cloud'
	ɪnwᵃˊ	'Milk-bush'	ɠɪzá	'stone surface'
/e–ɛ/	céŋ	'joke'	édᵃ	'name'
	cɛŋˊ	'wood-pecker'	ɛ́bᵃ	'horn'
/a–ɛ/	lar	'pipe'	habᵃ	'tree-hive'
	lɛr	'Naivasha Thorn'	fiyɛgᵃ	'bone marrow'
/u–ʊ/	gúr	'heart'	kurˊ	'shade'
	gʊr	'Sickle Bush'	kúra	'Wait-a-bit Acacia'
/o–ɔ/	nosˊ	'male leopard'	tsól	'bee-eater'
	nɔs	'noise'	tsɔ́r	'baboon'
/a–ɔ/	kakᵃˊ	'leaf'	fádwᵃ	'scale'
	kɔkᵃ	'small reeds'	fɔ́ɗᵃ	'loincloth'

On the surface, vowel length is also contrastive in Ik, as the following show:

(13)　*Contrastive vowel length*

	V		VV	
/i–ii/	ɗiɗᵃ	'donkey'	ɗiitᵃˊ	bird sp.'
/ɪ–ɪɪ/	ts'ɪkᵃˊ	'bee'	tsɪɪrˊ	'narrow ridge'
/e–ee/	segᵃ	'Acacia sp.'	seekwᵃˊ	'broth'
/ɛ–ɛɛ/	ɗɛrétᵃ	'Acacia sp.'	ɲɛréɛ́tᵃ	'marsh'
/a–aa/	kwarˊ	'mountain'	kwaár	'baboon troop'
/ɔ–ɔɔ/	kɪlɔ́rítᵃ	'tree sp.'	bílɔɔr	'bird sp.'
/o–oo/	tsól	'bee-eater'	coór	'leg bangle'
/ʊ–ʊʊ/	tsʊɓᵃ	'bird tail'	tsʊ́ʊr	'White Thorn'
/u–uu/	tulú	'rabbit'	lúulú	'firewood chips'

The phonetically long vowels shown in the VV column in (13) above are analyzed in this grammar as sequences of individual short vowels, not vocalic units with a length feature. A similar analysis is posited for the Teso-Turkana languages which have heavily influenced Ik (Dimmendaal 1994:154). In addition to the sequences of identical vowels listed in (13), Ik also exhibits many sequences of dissimilar vowels (see §2.2.3 below).

2.2.2 *Vowel realizations*

All nine Ik vowels are fully voiced, except before a pause where they are devoiced. The four vowels with advanced tongue root [+ATR] have a deeper resonance phonetically and can be characterized as 'heavy' or 'breathy'. The five vowels with a neutral tongue root [-ATR] are less resonant due to a narrower pharyngeal cavity. They can be characterized as 'light' or 'flat'. Precise feature specifications for the vowels are as follows:

/i/	is a close front unrounded vowel with [+ATR].
/ɪ/	is a close front unrounded vowel with [-ATR].
/e/	is a mid front unrounded vowel with [+ATR]
/ɛ/	is a mid front unrounded vowel with [-ATR].
/a/	is a low central unrounded vowel with [-ATR].
/ɔ/	is a mid back rounded vowel with [-ATR].
/o/	is a mid back rounded vowel with [+ATR].
/ʊ/	is a close back rounded vowel with [-ATR].
/u/	is a close back rounded vowel with [+ATR].

The back vowels /o, ɔ, u, ʊ/ can be desyllabified before an adjacent vowel, yielded [w] as a semi-vocalic allophone. The front vowels /i, ɪ/ can also be desyllabified, producing [y] as their semi-vocalic allophone. Whether the mid front vowels /e, ɛ/ can desyllabify to [y] is an analytical issue touching on the interpretation of diphthongs (see §2.2.3 below). Dimmendaal 1995 argues that for Nilotic languages, so-called diphthongs should be reanalyzed as glide+vowel sequences. But Ik diphthong-like units (vowels with two

targets) include combinations of mid and low vowels like [ea̯], making a [ya] interpretation inappropriate. So if the diphthong analysis is rejected, the existence of mid-level semi-vowels [e̯, ɛ̯] must be posited instead.

Using Speech Analyzer software, the following four nouns were compared in terms of the duration of their vowel targets. The approximate measurements from a single Ik speaker indicate that the duration of a diphthong-like sound is longer than for single vowels but shorter than for double vowels:

(14)   *Vowel length measurements*

V	akᵃ	'mouth'	(~0:0.1600)
V	ekwᵃ	'eye'	(~0:0.1700)
V̯V	e̯akwᵃ	'man'	(~0:0.1900)
VV	seekwᵃ	'broth'	(~0:0.2050)

The question of diphthongs versus glide + vowel combinations is taken up again below in §2.2.3, where a list of representative words is presented.

All nine Ik vowels are devoiced before a pause as a general rule. This is a clear example of the phonology-syntax interface: A syntactic boundary (clause-finally and before a pause) is the conditioning environment for vowel allophony. Non-voiced vowels are an areal trait; they are found in various language families around Sub-Saharan Africa, including the local Teso-Turkana languages and more distant Cushitic languages like Oromo, Burunge, Alagwa, and K'abeena (Mous 2012:353). Vine gives them the 'phonetically neutral' label 'shadow vowels' (1981:385), while Novelli calls them 'breathed' (1985:29). 'Whispered' is also a term found in the literature. According to Vine, voiceless vowels are either 1) allophones of underlyingly voiced vowels, 2) surface realizations of underlyingly voice*less* vowels, or 3) the result of the auto-segmental behavior of largyngeal features (1981:409).

The Ik vowels of this type are called called 'devoiced' here to reflect the analysis that they are underlyingly voiced vowels that have undergone

devoicing. Following a tradition started by Crazzolara 1967, the Ik devoiced vowels are written with the superscript symbols [^{i}, $^\iota$, ^{e}, $^\varepsilon$, ^{a}, $^\jmath$, ^{o}, $^\upsilon$, ^{u}]. Even though their occurrence is allophonic, the devoiced vowels are written throughout this grammar. Perhaps because their conditioning environment is syntactic as well as phonological, native speakers seem much more aware of devoiced vowels than other consonantal or vocalic allophones.

In the neighboring languages of Toposa (Schröder & Schröder 1987) and Turkana (Dimmendaal 1983), non-voiced vowels have been analyzed as distinct phonemes, contrasting with voiced vowels. Dimmendaal writes that "With regard to the position of non-voiced vowels, it is noted that they only occur in word-final position (i.e. potentially in the position before pause), but so may voiced vowels. It is, therefore, not predictable synchronically in Turkana when a vowel is [+voiced], or [-voiced]" (1983:31). But in Ik, it is generally predictable: *Any vowel before a pause is devoiced, and any vowel not before a pause is voiced.* For Turkana it is claimed that underlying non-voiced [-voiced] vowels become voiced "in the position other than before pause", as the following examples illustrate (Dimmendaal 1983:31):

(15)   lo-mug̦i̦ || → [lomug̊ʰi̦]   'the mauve-colored one'
         lo-mug̦i̦ lo → [lomugi lo]   'this mauve-colored one'

The opposite interpretation is given for Ik: *Underlyingly voiced vowels become devoiced before a pause.* Such a view helps explain apparent evidence for phonemic voicing contrast in examples like the following:

(16)   ín-o || → ín° [ínǫ]   'with (an) animal(s)'
         ínó-o || → ínó [ínó]   'from (an) animal(s)'

In (16), the noun root *ínó-* 'animal(s)' takes two case suffixes. In the first line, the instrumental case suffix {-o}, which first subtracts the root-final vowel /o/, is devoiced before a pause. In the second line, the ablative case suffix, also {-o}, which preserves the root-final vowel, gets devoiced and

actually deleted, leaving the root final vowel fully voiced. So what first appears to be a case of contrastiveness between voiced and non-voiced vowels is really a syntactically conditioned type of allophony. The devoiced/deleted vowels in (16), when in a clause-medial position, surface as fully voiced in line with their underlying voicing specification:

(17)   ín-ó=ni   →   ínó=ni   [ínónì]   'with these animals'
        ínó-o=ni   →   ínóo=ni   [ínóônì]   'from these animals'

The examples above in (16) illustrate another trait of Ik devoiced vowels: Depending on the vowel preceding them, they may be completely inaudible. As such, a further allophone of all nine vowels is simply zero [∅]. A devoiced vowel is inaudible when it is identical or very close in quality to the vowel that immediately precedes it, for example in:

(18)   baro-o   →   baroᵒ   [bàrò]   'from the corral'
        dakú-o   →   dakúᵒ   [dākú]   'from the tree'
        ɲɛƙɛ-ɛ   →   ɲɛƙɛᵋ   [ɲèƙè]   'of hunger'
        sɪsí-ɛ   →   sɪsíᵋ   [sīsí]   'in the honey-beer'

As noted above, pre-pause vowel devoicing is a general rule. The rule is supsended in the following four environments: 1) when the phrase or clause has interrogative intonation, 2) when the phrase or clause has solicitive intonation, 3) when the anaphoric demonstratives =ꞌdɛ́ɛ́ (sg.) or =ꞌdíí (pl.) are present, and 4) when the vowel in question is part of a deictic demonstrative. In environments (1)-(2), the syntax and therefore the phonology iconically reflect the pragmatic notion that the clause lacks the level of finality needed for devoicing. For a question, this entails waiting for an answer. For solicitation, this entails waiting for the desired response:

(19)   *Kaa naa awak.*   INDICATIVE

    ƙa-a = náa   awá-k^e

    go-3SG = PST1   home-DAT

    S/he went home.

(20)   *Kaa naa awee?*   INTERROGATIVE

    ƙa-a = náa   awé-e

    go-3SG = PST1   home-DAT

    Did s/he go home?

(21)   *Kaa naa aweee?*   SOLICITIVE

    ƙa-a = náa   awé-eé

    go-3SG = PST1   home-DAT

    S/he went home, okay?

For environment (3)—after anaphoric demonstratives—it is not known why devoicing is suspended. Perhaps there is a historical explanation:

(22)   *Kaa naa awee dee kona.*

    ƙa-a = náa   awé-é = ꜛdéé   kɔn-a   (**kɔn-∅)

    go-3SG = PST1   home-DAT = ANPH.SG   one-REAL

    S/he went to that very home.

Lastly, many deictic demonstratives consist only of a consonant and a vowel, making the devoicing of the sole vowel impractical. For example:

(23)   *Kaa naa awee ne.*

    ƙa-a = náa   awé-é = ne (**n)

    go-3SG = PST1   home-DAT = DEM.SG

    S/he went to that home.

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2.2.3 Vowel distribution

Ik vowels can occur in any position within a word. For all nine vowels in a word-medial position, please refer back to §2.2.1 above. The data below show vowels in word-initial and word-final positions. A hyphen is used to signify that nouns are in their lexical forms to show their final vowels. (In isolation, nouns take the nominative case which deletes root-final vowels).

(24) Word-initial   Word-final

    ínó-   'animal'   ŋókí- 'dog'

    ɪnɔ́-   'Milkbush'   sɪsí- 'honey beer'

    ekú-   'eye'   ɓóré- 'corral'

    ɛkɛʊ́- 'muscle fiber'   ɲɛɠɛ- 'hunger'

    aká-   'mouth'   kwará 'mountain'

    ɔlírí- 'female hyrax'   ɲɔtɔ́- 'men'

    oní-   'abandoned village' ɗéró- 'rat'

    úzɛtɪ- 'Uzet clan'   kafʊ- 'thorn'

    úde-   'soft grass sp.'   dakú- 'tree '

As already noted, sequences of identical and non-identical vowels occur. Please refer to (13) above for sequences of same vowels. Sequences of different vowels are shown below in a couple of phonological syllable types:

(25) *CVVC*

    ɪɔ   míɔkɔ-   'mamba'

    ɪa   mɪlíárɪ- 'plant sp.'

    ei   keídzo-   'wild potato-like plant sp.'

    eu   leúzo-   'charcoal'

    ɛʊ   mɛʊra-   'Superb starling'

    aɪ   gwaíts'í- 'giraffe'

    aʊ   lɔkaʊɗé- 'weevil'

    au   kaúdzo-   'plant sp.'

    ɔɪ   kɔíná-   'whiff'

	ou	lóúpee-	'plant sp.'
	ua	lósuaɲa-	'stone anvil'

(26) *CVV*

	ia	emusia-	'plant sp.'
	io	tsarió-	'weaver-bird'
	ɪɛ	aríɛ́-	'small intestines'
	ɪʊ	ɟɪlíʊ́-	'bird sp.'
	ɛa	dɛá-	'leg/foot'
	ai	loɓáí-	'bone disease'
	ao	máó-	'lion'
	oi	isókói-	'Euphorbia sp.'
	oe	tsoé-	'hunting dog'
	ʊɛ	yʊɛ́-	'falsehood'
	ue	cué-	'water'

Vowel pairs not attested in the data include: *ie, iu, uo, oa, ɛɪ, ɛɔ, ʊɪ, ʊa, ʊɔ, ɔɛ, ɔʊ, ɔa, aɛ,* and *aɔ* (though they are found across morpheme boundaries).

Some vowel sequences must be analyzed as diphthongs or as glides + vowels because a) they clearly consist of two vocalic targets and b) they consist of one tone-bearing unit (see discussion under §2.2.2). These include: *i̯ɛ, i̯a, i̯ɔ, i̯ʊ, e̯a, ɛ̯a,* and *e̯o,* and are found in few words like the following:

(27)

	i̯ɛ/yɛ	i̯ɛ́ɓ-	'cold'
		i̯ɛ́k-	'be far'
	i̯a/ya	i̯án-	'converse'
		i̯áŋ-	'rest'
		i̯át-	'add'
	i̯ɔ/yɔ	i̯ɔ́k-	'flower (v)'
	i̯ʊ/yʊ	i̯ʊm-	'capture a bride'
	e̯a/ĕa	e̯akwᵃ	'man'
		e̯as	'truth'

ẹo/ĕo	ẹód-	'be full'
ɛa/ĕa	ɛán	'sister-in-law, co-wife'
	ɛáát[a]	'his/her sister'

The Ik diphthong-like sounds are found only root-initially. In all but two identified cases, this means they come word-initially. But if a root is reduplicated, the sound may appear stem-internally, as in the following:

(28) ɾa̯ʊ-ɾa̯ʊ-   (yawɪyaw[a])   small stream
      i̯uk-u̯úk-   (yukúúk-)   force in

2.3   Summary of allophonic realizations

The preceding sections describe Ik contrastive consonant and vowel sounds. They also introduced a variety of allophones arising from different phonological and syntactic environments. The present section summarizes these allophonic realizations according to environment because many environments affect both consonants and vowels in similar ways.

2.3.1 Devoicing

The Ik phonology-syntax interface strictly observes the right-edge of speech and does so by universally devoicing the final segment (consonant or vowel), regardless of the morpheme type involved. Voiced consonants are partially devoiced in this environment, and voiced vowels are either fully devoiced, reduced to a feature (like labialization) or deleted (rendered inaudible). This devoicing can be captured in the following aphorism:

(29)   *Phonological Rule 1 (P1)—Final Devoicing*
   - "A voiced vowel devoices before a pause."
   - "A voiced consonant devoices before a pause whether followed by a devoiced vowel or not."

The data below illustrate devoicing in consonants and vowels. The first column of (30) gives the abstract lexical form of the nouns (to show their final vowels), and the second column shows how the nouns surface phonetically in the final-form of the oblique case (see §6.3.1):

(30) rébe-   →   [rêb̥e̥]   'finger millet'
      édi-   →   [êd̥i̥]   'name'
      sega-   →   [sèg̊ḁ]   'Umbrella Thorn'
      taɓá-   →   [tāɓ̥ḁ]   'rock'
      moriɗo-   →   [mòrìɗ̥o̥]   'beans'
      emé-   →   [ēm̥]   'meat'
      eŋúnú-   →   [ēŋúnʷ]   'lastborn'
      wɛla-   →   [wɛ̀l̥]   'opening'
      baro-   →   [bàr̥]   'herd'

As (30) shows, if the devoiced vowel is a back vowel, it may leave a trace of labialization on the preceding nasal, as in *eŋúnú-* 'lastborn' → [ēŋúnʷ].

The impact that pre-pause devoicing has on final consonants and vowels ultimately depends on the particular combination of consonant and vowel. This is also true for neighboring Toposa (Schröder & Schöder 1987:19) and Turkana languages (Dimmendaal 1983:32). In Ik, there is a general but violable tendency for devoiced vowels to become completely inaudible after fricatives /f, s, z, ʒ/, nasals /n, m, ɲ, ŋ/, and liquids /l, r/. The degree to which holds true depends on such factors as idiolect, speech rate, and other yet unknown articulatory or pragmatic factors. If, however, the devoiced vowel in question is needed for meaning, it is pronounced as whispered regardless of the preceding consonant. This happens, for example, with the instrumental case. Compare the following final (pre-pause) forms of nouns with the nominative suffix {-a} and the instrumental suffix {-ɔ}:

(31) *Nominative* *Instrumental*

bíbᵃ	bíbᵒ	'dove'
ɓiɓᵃ	ɓiɓᵒ	'egg'
kucᵃ	kucᵒ	'hyrax den'
édᵃ	édᵒ	'name'
ɗiɗᵃ	ɗiɗᵒ	'donkey'
kaf	kafᵓ	'thorn'
dzógᵃ	dzógᵒ	*Pappea capensis* tree sp.
kíjᵃ	kíjᵒ	'land'
cúrúkᵃ	cúrúkᵒ	'bull'
ɗɛɾɛ́ƙᵃ	ɗɛɾɛ́ƙᵓ	'wasp'
ɲól	ɲólᵒ	'dik-dik'
jʊm´	jʊmᵓ´	'soil'
kwan´	kwanᵓ´	'penis'
lewɛɲ	lewɛɲᵒ	'ostrich'
cɛŋ´	cɛŋᵓ´	'wood-pecker'
kopᵃ	kopᵓ	'vulture'
gúr	gúrᵒ	'heart'
bos	bosᵒ	'ear'
botᵃ´	botᵒ´	'load'
bakutsᵃ´	bakutsᵒ´	'chest'
ƙʊts'ᵃ´	ƙʊts'ᵓ´	'insect'
sɛwᵃ	sɛwᵓ	'stick'
ƙwaz	ƙwazᵒ	'article of clothing'
mízɪʒ	mízɪʒᵓ	*Hippocratea africana* plant sp.

Ik nouns spoken in isolation are typically in the nominative case. So throughout this grammar, the nominative case suffix {-a} in its non-final form is written as a raised vowel everywhere except after /f, s, z, ʒ, m, n, ɲ, ŋ, l, r/. Even though there is some variation among speakers, the line must be drawn somewhere in terms of how to represent such forms.

Even after consonants other than fricatives, nasals, and liquids, the tendency to soften the final element of a word or phrase may lead an Ik speaker to eliminate the final vowel entirely, leaving only a consonant. This type of consonantal unrelease is in free variation with releasing the final vowel in a whispered puff. Compare the two possible surface pronunciations of five nouns in the final-form oblique case:

(32)   rébe-   →   [rêb̥e̥]   /   [rêb̥˹]   'finger millet'

         édi-   →   [êd̥i̥]   /   [êd̥˹]   'name'

         sega-   →   [sèǧḁ]   /   [sèǧ˹]   'Umbrella Thorn'

         taɓá-   →   [tāɓḁ]   /   [tāɓ̥˹]   'rock'

         moriɗo-   →   [mòrìɗo̥] /   [mòrìɗ˹]   'beans'

As note above in §2.2.2, vowels can surface fully voiced before a pause. This can happen, for example, when a stem ends in a VV sequence. The last vowel in the pair is devoiced, allowing the first to surface with voicing. If the two vowels are identical, the devoiced vowel tends not to be audible at all—in other words, deleted. If the vowels are different, the devoiced vowel will remain as a whispered puff. A devoiced /a/ can at times cannot be distinguished from a mere puff of aspiration. These tendencies are illustrated below with a set of nouns ending in VV in the oblique case:

(33)   didii-   →   [dìdì]   'rain'

         séí-   →   [séi̥]   'quartz'

         sábai-   →   [sábài̥]   'fatty stomach lining'

         muceé-   →   [mūtʃē]   'path'

         ŋkwaá-   →   [ŋ̄k'wāʰ]   'traditional healer'

         girúu-   →   [gīrú]   'locust'

         ɗóɗoo-   →   [ɗóɗò]   'sheep'

         demio-   →   [dèmìǐo̥]   'Wild Olive tree'

         ɗau-   →   [ɗàu̥]   'knife'

2.3.2 Place assimilation

Ik consonants and vowels may shift their place of articulation slightly to accommodate to other nearby segments. On the side of consonants, this assimilation affects nasals and velars. Nasals must be articulated at the same place as a consonant immediately following them (except when vowel syncope is involved; see §2.1.3 above), and velars shift slightly forward [Ç] before front vowels and slightly backward [Ƈ] before back vowels, as in:

(34)	ƙʊts'ᵃˊ	→	[k̯'ūts'a̱]	'insect'
	ƙɔɓᵃ	→	[k̯'ɔ̄ɓa̱]	'navel'
	ƙíwᵃ	→	[k̯'íw̥a̱]	'leather strap'
	ƙɛƙɛ́r	→	[k̯'ēk̯'ɛ́r̥]	'grasshopper'
	ƙaƙᵃ	→	[k'àk'a̱]	'hunt'

A similar situation is found in neighboring Turkana where [q, χ, ɣ, ʁ] are all allophones of /k/ (Dimmendaal 1983:9), and in Dhaasanac where /k/ is uvularized to [q] before back vowels /a, o, u/ (Tosco 2001:21).

On the side of vowels, place assimilation raises the low central vowel /a/ to [a̱] or [æ] following palatal consonants like /c, ɟ, ɲ/:

(35)	ɟanˊ	→	[ʃǣn̠]	'broom'
	caál	→	[tʃǽːl̠]	'hearth-stone'
	ɲátatsᵃˊ	→	[ɲǽtātsa̱]	'spike trap'

Ik vowel height assimilation recalls Dhaasanac where /a/ also raises to [æ], before instead of after palatal consonants and glides (Tosco 2001:27). Similarly, a few words traceable back to Teso-Turkana (T-T) origins show the raising of /a/ to [æ] after the (semi-)vocalic target /ɪ/ or /ts/:

(36) ɪán-ɔ́n   →   [ɪǽnɔ́n̪]   'to converse'   (T-T *ak-ɪan*)

ɪát-ɛ́s   →   [ɪǽtɛ́s]   'to add'   (T-T *ak-ɪat-akin*)

ɪtsan-ɛs´   →   [ītsǽnēs]   'to disturb'   (T-T *ak-ɪcan*)

tsam-ɛ́s   →   [tsǽmɛ́s]   'to like'   (T-T *a-camɪtt*)

With the latter two examples of (36), Ik speakers often reanalyze the raised /a/ as /ɛ/, thereby rendering *ɪtsɛnɛs´* 'to disturb' and *tsɛmɛ́s* 'to like'.

A final lexeme of unknown etymological origin exhibits /a/-raising without apparent phonetic motivation, and that is: *kwaár* → [kwǽːɾ̥] 'baboon troop'.

Place assimilation processes in Ik are verbalized in the following aphorisms:

(37)   *Phonological Rule 2 (P2)—Place Assimilation*

- "Nasal consonants must be articulated at the same place as a consonant immediately following (except after syncope)."
- "Velar consonants shift slightly back or front to accommodate the back or front vowel that follows them.
- "The low central vowel /a/ is raised slightly when following high segments like palatals, alveolars, or high vowels."

2.3.3 Glottalic effects

Two types of allophony have to do with glottalic consonants: implosives and ejectives. The first type affects consonants and involves a) the weakening of an ejective to an implosive (*Implosivization*) or b) the weakening of either an ejective or implosive to a glottal stop (*Debuccalization*). The second type involves vowels given a creaky quality (*Laryngealization*) when surrounded by glottalic consonants. Glottalic effects on consonants are discussed first.

Implosivization: The velar ejective /ƙ/ often surfaces as a voiced velar implosive [ɠ]. Schrock 2011 offers an hypothesis on the articulatory motivation for this allophony. Based on observation and on practice making

these sounds, it seems that making the ejective requires more muscular tension and articulatory effort than does the implosive. So, in fast or casual speech, the speaker makes only half an attempt at the ejective, and this results in a sound approximating an implosive. Examples include:

(38) ɓɛɠɛ́r   →   [ɠɛ̄ɠɛ́ɹ̝]   'grasshopper'
      tɔɓɔtɔɓ́   →   [tɔ̄ɠɔ̄tɔ̄ɓ̚]   'slug/snail'
      ɓaɓa-aɓɔ-kᵉ   →   [ɠàɠàːɓɔ̀ḵɛ̰]   'for hunting'

In Ik, implosivization appears to be an historical as well as a current phenomenon. As Heine pointed out, older Ik speakers often retain ejective sounds where younger ones prefer implosives (1999:14). Take for example the following set of three, adapted from Heine:

(39)   *Older*   *Younger*
      /tl'→ʝ/   tl'aɓú-gwa   ʝaɓú-gwa   'guinea-fowl'
      /ts'→ʝ/   ts'an´   ʝan´   'louse'
      /ɓ→ɠ/   zɛɓw´   zɛɠw´   'sit'

In such lexical pairs, Heine certainly captured a chronolectal variation, but the situation today is not so clear cut. True, the lateral affricate ejective /tl'/ is entirely lost, but /ts'/ and /ɓ/ are still widely used across generations.

Debuccalization: An implosive, or an ejective-turned-implosive, may further weaken into a glottal stop [ʔ]. Although speakers of all ages do this, it is more often heard among the young. Frequent examples include these below:

(40) bia=ʝɪ   →   [bīāʔɪ̄]   'you (sg.) too'
      ntsíó ɗa=ke   →   [n̄tsíó ʔà kè]   'There it is!'
      ŋɓáɓá-kwɛtᵃ´   →   [ŋ̄ʔáʔá-kwɛ̄ta̰]   'right hand'
      ɓéd-ayé   →   [ʔêdājé]   'there'
      ɓɛɓɛ́s   →   [ɓɛ̄ʔɛ́s]   'to walk'

(40) shows that glottal stops arising from weakened glottal consonants can occur word-initially and word-medially. No glottal stops have been found word-finally, or as allophones of the bilabial implosive /ɓ/ or the alveolar affricate ejective /ts'/. Therefore only /ɗ/, /ʄ/, and /ƙ/ are affected.

Finally, vowels may be creaky (laryngealized) in the vicinity of glottalics like ejectives or a glottal stop. Examples include: *ŋkáƙᵃ* → [ŋ̄k'ák̟'a̠] 'food', *ɓɛƙɛ́s* 'to walk' → [ɓɛ̠k'ɛ́s], and *kɛkɛ́r* 'grasshopper' → [k'ɛ̠k'ɛ́r̠].

To conclude, glottalic allophonic processes can be summarized as follows:

(41)   *Phonological Rule 3 (P3)—Glottalic Consonant Weakening*
- "A velar ejective may weaken to an implosive."
- "The implosives /ɗ, ʄ/ and the ejective /ƙ/ may further weaken to a glottal stop [ʔ]."

Phonological Rule 3 (P3)—Vowel Laryngealization
- "A vowel adjacent to glottalic consonants may become creaky."

2.4   Syllables

The concept of the syllable is invoked here to account for peaks of vocal energy or sonority and the types of sounds that can enclose them. It is also a useful analytical tool for describing phenomena like: epenthesis, syncope, haplology, desyllabification, and metathesis. Because of the pre-pause devoicing of vowels in Ik, it is necessary to distinguish phonological syllables from phonetic syllables. In the phonological, or underlying syllable structure, the devoiced vowels are fully present. Whereas in the phonetic syllable, they are not. This means that for Ik, syllable structure differs significantly between the underlying and surface levels.

2.4.1 Phonological syllables

In Ik, all phonological syllables can be generated by the template: (C)V. This maximal syllable template produces the open syllables V and CV:

(42)　*Ik phonological syllable types*

　　V　　single vowel

　　CV　　open with single vowel

Any V can be a vowel, diphthong, or syllabic nasal (only directly before another non-nasal consonant). And any consonant (C) may be a simple consonant or a complex consonant (consonant plus glide). The absence of VV sequences in underlying representations is due to their being analyzed as two syllabic peaks. This is because they do not behave as a single unit. The same has been claimed for neighboring Turkana (Dimmendaal 1983:34, 50) and for some languages in wider Eastern Nilotic (Dimmendaal 1995:151). Ik VV sequences consist of two tone-bearing units and can involve nearly any sequence of like or different vowels (see §2.2.1 and §2.2.3 above).

The following lexical noun roots illustrate a few phonological syllable combinations. At the surface level, with phonetic syllable types, each of these words would syllabify according to different parameters:

(43)　*Phonological syllabification*

V.CV	í.nó-	'animal'
	é.di-	'name'
	a.ká-	'mouth'
	ɔ́.za-	'bottom'
	ú.de-	'soft dry grass'
CV.CV	sɪ.sí-	'honey-beer'
	ce.kí-	'woman'
	ƙa.ƙa-	'hunt'

	ɓó.ré-		'corral'
	gú.ró-		'heart'
CV.V	ƙí.ɔ́-		'leather strap'
	dɛ.á-		'leg'
	má.ó-		'lion'
	tso.é-		'wild hunting dog'
	ku.a-		'grass'

Syllabic nasals are found in just a few environments, for example:

(44)	V.CV	ŋ́.ka	[ŋ́kạ̊]	'I'
		n.tsaˊ	[n̄tsạ̊]	's/he/it'
		ŋ.ƙeˊ	[ŋ̄k'ẹ̊]	'Eat!'

Complex onsets involving a consonant-glide (CG) combination are rather more common. In Ik, these come from two sources: 1) desyllabified high vowels that lose their mora, causing compensatory lengthening on the following vowel and 2) lexicalized consonant-glide complexes. The first type is discussed below in §2.4.3, while the second type is exemplifed in (42). At the phonological level, these CG sequences are found only in onsets:

(45)   *Consonant-glide combinations*

di.kwá-	'dance, song'
gwa.á-	'bird'
kwa.rá-	'mountain'
ƙwa.za-	'clothing'
ŋwa.á-	'female'
gwá.mó.ni-	'to stand'
i.ɓwa.te.sí-	'to handle roughly'
i.mwá.ŋó.ni-	'to shift the eyes'

i.rwa.te.sí-	'to sprinkle'
i.twa.re.sí-	'to chase away'

The semi-vowel /y/ may also appear in an onset, though more rarely:

(46) i.syó.nó.ni-   'to have pity'
      i.tsyá.ké.to.ni-   'to begin'
      i.tsyá.tó.ni-   'to be resistant'
      i.tya.ke.sí-   'to forge'

Semi-vowels of the second type mentioned above can be analyzed as back vowels underlyingly. Though at present it is not possible to recover whether a given Cw, for example, is Co, Cɔ, Cu, or Cʊ, there is evidence they have the same moraic value as other vowels. As described ahead in §4.2.1, the assignment of Ik pluratives in some cases references the number of moras in a noun root. Nouns with two moras take a particular suffix, while nouns with three or more take a different one. As it turns out, nouns with the profile CGVCV pattern not with CVCV nouns but with CVCVV and CVCVCV nouns. This means that in terms of syllable weight, at least, the semi-vowel is 'read' as a vowel. In this light, compare the following examples:

(47)   CVCV   ɓɔɓa-   →   ɓɔɓ-ítín   'navel(s)'
       CVCVV   ɓɔfɔ́ɔ-   →   ɓɔfɔ́-ɪkᵃ   'small gourd(s)'
       CGVCV   ɓwaza-   →   ɓwáz-ɪk ᵃ   'clothing (pl.)'
       CVCVCV   ɓɔɗɔta- →   ɓɔ́ɗɔ́t-ɪkᵃ   'hooked ladder(s)j'

In (47), only the first noun with a CVCV syllable structure takes the plurative {-ítíní-}. Note that the three following nouns all take the plurative {-ɪka}, including the one with a CG sequence: ɓwaza- 'clothing (sg.)'. Apparently then, the semi-vowel has the same moraic value as a vowel. As a result, it is possible to syllabify forms like ɓwaza- in the following two ways:

(48) gwa.sá-   OR   gu.a.sá-   'stone'

     kwa.rá-   OR   ko.a.rá-   'mountain'

     kwɛ.tá-   OR   kɔ.ɛ.tá-   'hand, arm'

Interestingly, other similar words like *kwaní-* 'penis' pattern with CVCV nouns, its plural surfacing as *kwanítín* not **kwáník^a*. Also, the fact that the noun *dɛá-* 'leg, foot' pluralizes as *dɛɪk^a* suggests that depressor consonants like /d/ count for one mora in the mora-counting plurative inflection. So there are exceptions, perhaps hiding yet undiscovered relevant factors.

Because of the large number of consonants that can form complex onsets with semi-vowels (11 out of 30), it was decided not to treat each complex as a separate phoneme. It could happen that further historical insight into Ik will require the positing of at least some labialized phonemes like the velars.

2.4.2 Phonetic syllables

The universal devoicing of vowels before pauses means that at the surface level, closed syllables are attested. Closed phonetic syllables account for the cases where a final vowel is devoiced, leaving an unreleased final consonant. If, on the other hand, the devoicing leaves a whispered vowel, it may be analyzed as syllabic, non-syllabic, or extra-syllabic. The descriptive framework permits all three interpretations at the phonetic level.

Closed phonetic syllables may contain a complex VV nucleus, though as noted above, these are treated as V.V at the phonological level. This is also what has been claimed for Turkana (Dimmendaal 1983:50). Thus, at the surface level, the template (C)V(V)(C) is a more accurate generator of allowable phonetic syllable types, such as these shown below:

(49)   *Ik phonetic syllable types*

V   single vowel

VV   double vowel

CV   open with single vowel

CVV   open with double vowel

CVC   closed with single vowel

CVVC   closed with double vowel

It may be helpful now to make a comparison between phonological and phonetic syllable types. This can be done by syllabifying various items both at an underlying level and at the surface level:

(50)   *Phonological syllable*   *Phonetic syllable*

V.V   é.é   VV   [éé]   'yes'

CV.CV   ŋó.kí-   CVC   [ŋóki̥]   'dog'

CV.V.CV   ƙwa.a.tí-   CVVC   [ƙwǎáti̥]   'frog'

CV.CV.V   ts'é.ˈdé.é   CV.CVV   [ts'êdˈéé]   'there'

CV.CV.V.CV cu.cwá.á.na   CV.CVVC   [tʃūtʃʷá:n̥] 'It's liquid.'

2.4.3 Syllabification methods

Ik words are syllabified left-to-right, and syllable onsets are maximized. The following lengthy noun and verb stems illustrate normal syllabification:

(51)   a.rá.gwa.nɛ́ɛ́.bɪ.tín   V.CV.CV.CVV.CV.CVC   'new moon'

a.lá.máá.rá.nón   V.CV.CVV.CV.CV.CVC   'to sway'

When morphemes are strung together, the normal method of syllabification may be challenged. In such cases, Ik has ways of resyllabifying the string to form allowable syllable types. These procedures include epenthesis, syncope, haplology, and desyllabification, all described below.

Epenthesis: Whenever a CVC lexical root is fully reduplicated, a disallowed consonant cluster (CV<u>C.C</u>VC) is created word-internally. If this happens, an epenthetic vowel is inserted to break up the cluster. The default epenthetic vowel in Ik is /ɪ/ or /i/ (which may be backed to /ʊ/ or /u/):

(52) *bot.bot-   →   bo.ti.bot-   'be nomadic'

      *cɛm.cɛm-   →   cɛ.mɪ.cɛm-   'be combative'

      *kɛt.kɛt-   →   kɛ.tɪ.kɛt-   'pitter-patter'

      *sʊr.sʊr-   →   sʊ.rʊ.súr-   'be lanky'

Syncope: Vowels may be deleted in words for two reasons: 1) They fall between a nasal and non-nasal consonant, or 2) they occur in a disallowed VVV sequence. In the first environment, when a nasal is the onset of a word-medial syllable, and its vowel nucleus is deleted, the nasal then becomes part of the VV nucleus of the preceding syllable as in the following:

(53) ma.rá.ŋí.té.su.ƙotⁱˊ   →   ma.ráŋ́.té.su.ƙotⁱˊ   'to heal'

      ɪ.tsʊ.ŋʊ.ƙotᵉˊ   →   ɪ.tsʊŋ.ƙotᵉˊ   'Burn (it)!'

      ŋí.ki.swa.hí.lí.todᵃ   →   ŋ́.ki.swa.hí.lí.todᵃ   'Kiswahili'

In the second environment—when a disallowed VVV sequence appears at the juncture of two morphemes—one of the first two vowels is deleted. This can be illustrated by affixing the non-final Accusative case morpheme {-a} to a couple of noun roots ending in a VV sequence:

(54) hɔ́tɔɔ-   →   **hɔ́tɔɔ-a → hɔ́tɔa…   'egret-ACC'

      muceé-   →   **muceé-á → mucéá…   'path-ACC'

Haplology: When two identical or very similar consonants occur in adjacent morphemes, the first similar consonant may be deleted. The loss of a syllable onset means that the string of segments has to be resyllabified:

(55) ʃá.ní.ni.o muɲᵘ → ʃá.í.ni.o muɲᵘ 'from all directions'

de.ti.dukᵒˊ → de.i.dukᵒˊ 'And you (sg.) bring (it).'

In the first example of (55), the /n/ in ʃán 'direction' is lost before the /n/ in the possessive plurative {-ɪnɪ-}. Likewise, in the second example, the /t/ in det- 'bring' is lost before the /d/ in the second person singular suffix {-ídi-}.

Desyllabification and Compensatory Lengthening: A back vowel /o, ɔ, u, ʊ/ may desyllabify to /w/ if preceded by a consonant and following by another vowel. A front vowel /i, ɪ/ may also desyllabify to /y/ in the same context. If this happens, the mora (syllabic weight unit) of the desyllabified vowel shifts to the vowel of the suffix, causing it to lengthen in compensation:

(56) bién → [byě:n̩] 'yours'

cuán → [tʃwǎ:n̩] 'It's liquid.'

dzúám → [ʣwá:m̩] 'thief'

egíade=nakᵃ → [ēgyâ:dènàka̧] 'I put it there (earlier).'

ídoe → [îdwè:] 'in the milk…'

ɉʊés → [ʃwě:s] 'to roast'

ŋués → [ŋwě:s] 'to grab'

epúáwᵃ → [ēpwá:wa̧] 'sleeping place'

taítaíón → [tāítāyó:n̩] 'to spin'

tsɔa → [tswà:] 'Now?'

At the surface level, desyllabification of this type is the source of many semi-vowels acting as allophones of underlying vowels.

Methathesis: Onsets of successive syllables may swap places with each other. Interestingly, when this happens, the swapped onsets may or may not take the voicing quality of the onset that they replaced. This type of metathesis has only been observed in the following three words:

(57)	zi.kí.bon	→	gi.sí.bon	'to be tall'
	kí.dzi.me.ton	→	tsí.gi.me.ton	'to come down'
	gaú.sú.mon	→	saú.kú.mon	'to be shaggy'

Isolated cases of different kinds of metathesis include *fúluƙurú* 'turaco' → *ƙúlufurú* and *naŋɪmʊŋ* 'axe-head' → *naŋɪnɪ́ŋ*. For the latter case, native speakers argue over which form is original and which one methathesized.

2.5   Morphophonology

Besides the sound changes that happen in phonological environments, some consonant and vowel changes happen in certain morphophonological environments (at the boundaries of specific morphemes and not others). These include haplology, de-affrication, and non-final deletion for consonants; and for vowels, several types of vowel assimilation.

2.5.1   Haplology

For Ik, *haplology* refers to the process whereby the first of two consonants made at the same place of articulation in certain adjacent morphemes is deleted. Presumably this has its origin in ease of pronunciation. Haplology has only been observed affecting the consonants /k, ƙ, n, t/—that is, two velars and two alveolars. Not only does haplology involve only those four consonants but only those four in specific morphological environments, i.e:

(58)   *Morphophonological Rule 1 (M1)—Haplology*
   - A root-final /k/ or /ƙ/ may be deleted before the andative/completive suffix {-ʊƙɔtí-} or the plurative III {-ɪka-}.
   - A morpheme-final /n/ may be deleted before an adjacent morpheme also containing /n/.
   - The /t/ in the venitive/inchoative suffix {-ɛt-} and the andative/completive suffix {-ʊƙɔtí-} may be deleted before the /t/ in the 2SG, 1PL.INC, and 2PL subject-marking suffixes.

The first such environment is when a lexical root ending in /k/ or /ƙ/ is followed by the andative/completive suffix {-ʊƙɔtí-}. In this environment, the root-final /k,ƙ/ is deleted, as the following verbs show:

(59)   *Luuƙotuk.*
       luƙ-uƙót-u-kᵒ   →   lu-uƙó-tu-kᵒ
       swallow-COMP-3SG-SEQ
       And s/he swallowed (it).

(60)   *Kookotuk.*
       kɔk-ʊƙɔ́t-ʊ-kˀ   →   kɔ-ɔƙɔ́t-ʊ-kˀ
       close-COMP-3SG-SEQ
       And s/he closed (it).

The second morphophonological envirement involves a noun root ending in /k/ pluralized by the plurative III {-ɪka-}. When this environment arises, the root-final /k/ deletes before the /k/ of the plurative suffix:

(61)   *baciika muɲ*
       bácík-ik-a   muɲ   →   bácí-ika muɲ
       area-PL-NOM   all
       all areas

The third morphophonological environment involves /n/ and comprises two different morphemic combinations. First, when the impersonal passive suffix {-aní-} is followed by the recent past tense clitic =nɑ́ka, the /n/ in the suffix is deleted before the /n/ in the clitic:

(62)   *Ŋabitetaa nak.*
       ŋáb-it-ét-an-a=nakᵃ   →   ŋáb-it-ét-a-a=nakᵃ
       wear-CAUS-INCH-IPS-REAL=PST1
       S/he was dressed.

Second, when a noun root ending with /n/ takes the possessive plurative {-ɪnɪ-}, the root-final /n/ gets deleted, as in the following noun phrase:

(63) *xainio muɲ*

ʃán-íni-o   muɲ   →   ʃá-íni-o muɲ
direction-POSS.PL-ABL   all
from all directions

The fourth morphophonological enviroment causing haplology involves the venitive/inchoative suffix {-ɛt-}. When this suffix is followed by any of the subject-agreement marking suffixes that contain an alveolar consonant, the /t/ in the suffix is deleted. This happens with 2SG, 1PL.INC, and 2PL, as shown in the following table. Note the missing /t/ in those three root forms:

(64)   *Haplology in the venitive/inchoative paradigm*

1SG	det-í	'I bring.'
2SG	dé-íd[a]	'You (SG) bring.'
3SG	det-[a]	'S/he brings.'
1PL.EXC	det-ím	'We (EXC) bring.'
1PL.INC	de-ísín	'We (INC) bring.'
2PL	de-ít[a]	'You (PL) bring.'
3PL	det-át[a]	'They bring.'

The fifth and final haplological environment is similar to the previous one in that in involves /t/ and subject-agreement suffixes. But in this case, it is the andative/completive suffix {-ʊ́ƙɔtí-} that loses its /t/ before the 2SG, 1PL.INC, and 2PL verb forms. Take note of the missing /t/ in those forms:

(65)   *Haplology in the andative/completive paradigm*

1SG	d-uƙot-í	'I take.'
2SG	d-uƙó-íd[a]	'You (SG) take.'
3SG	d-uƙot[a]	'S/he takes.'
1PL.EXC	d-uƙot-ím	'We (EXC) take.'

1PL.INC	d-uɓo-ísín	'We (INC) take.'
2PL	d-uɓo-ítᵃ	'You (PL) take.'
3PL	d-uɓot-átᵃ	'They take.'

That exhaustively completes the recorded instances of haplology in Ik and the morphophonological contexts that induce it. Haplology is marginally optional: It is grammatical for a speaker to circumvent haplology in very careful speech, but by all indications it is vastly preferred in these contexts.

The fact that haplology is restricted to certain morphophonological environments—as opposed to being a general rule—can be amply demonstrated by words such as the following in which it fails to occur:

(66) /k-k/   kakákᵒ   'It's a leaf.'
                sɪsɪkákᵉ   'in the middle'
                lókókᵃ   'worker ant'

      /ɓ-ɓ/   dúlúɓuɓú   'small oval gourd'
                ɓaɓakᵉ   'in the hunt'
                ɲéturuɓúɓu   'bone on chicken's back'

      /n-n/   asʊnán   'African pencil cedar'
                ɪmánán   'Castor-oil plant'
                seínení   '*Stereospermum kuntianum* tree'

      /t-t/   akatátᵃ   'gourd lid'
                botetam   'wood chip'
                Tutétᵃ   'Tutet Mountain'

Nevertheless, one instance of intra-morphemic haplology has been observed: ɲɔ́kɔkɔr 'chicken' → ɲɔ́ɔkɔr. This resembles Turkana haplology (Dimmendaal 1983:47-48), and indeed the word is borrowed from Turkana.

Haplology has also left an imprint on the Ik lexicon. The verb roots 'bring/take and 'give' have different forms depending on which verbal extensions are attached to them. They have a shorter root with any verbal suffix but the andative {-ʊƙɔtí-} and a longer root form with the andative:

(67)   d-et-és   'to bring'
        duƙ-és-úƙotᵃ   'to take'

        me-és   'to give (generally)'
        me-et-és   'to give (this way)'
        maƙ-és-úƙotᵃ   'to give (out/away)'

Looking at (67), it is not immediately clear whether the root for 'give' is *ma-* (*me-* when the vowel is assimilated by the following vowel) or *maƙ-*. It is also not clear whether the root for 'bring/take' is *d-* or *duƙ-*. Haplology in current Ik phonology gives a clue that the longer forms are original. In the imperative singular forms of these verbs with the andative—*ma-ƙot-ᵉ* and *d-uƙot-ᵉ*—the velar /ƙ/ in the root seems to have been deleted before the /ƙ/ in the andative suffix. Speakers then re-interpreted the shorter forms (*ma-* and *d-*) as roots unto themselves and began extrapolating forms like *me-et-és* and *d-et-és* instead of *maƙ-et-és* and *duƙ-et-és*.

2.5.2 De-affrication

In the introduction of this grammar, the Ik word for themselves (*Ikᵃ*) and the Ik word for 'head' (*ikᵃ*) were said to be homophonous in the nominative case. In accordance with their homophony, it has been suggested that the Ik people were the 'head' of ancient migrations. But their being the same word historically is challenged by the fact that in the other cases, their base forms are different: *icé-* 'Ik' and *iká-* 'head'. Comparing the full case declensions of these two noun roots opens up the discussion of *(de-)affrication*:

(68) *Non-final case paradigm for* icé- *'Ik' and* iká- *'head'*

	'Ik'	'head'
Base form	icé-	iká-
OBL	ice	ika
NOM	ik-a	ik-a
INS	ik-o (ic-o?)	ik-o
ABL	icé-ó/icó-ó	ikó-ó
GEN	icé-é	iké-é
ACC	icé-á	iká-á
DAT	icé-é	iké-é
COP	icé-ó/icó-ó	ikó-ó

As discussed further in §6.3, the Ik nominative and instrumental case suffixes first subtract the final vowel of the root to which they attach. This means that for *icé-* 'Ik', once the /é/ is deleted, the /c/ is directly exposed to the nominative suffix {-a} or the instrumental suffix {-ɔ}. So, unlike in other regional languages where affrication of /k/ to /c/ before high vowels is common (e.g. Luganda), (68) presents a situation in Ik where /c/ de-affricates to /k/ before non-front vowels /a/ and /o/. De-affrication is also attested in other roots similar to *icé-*, like *wicé-* 'children' and *ɲci-* 'I'.

This type of de-affrication applies only at the morpheme boundary between noun root and two case suffixes. If it applied more generally, one would expect words like *caalí-* 'hearth-stone' to become **kaalí-*, which it does not. Ik de-affrication can be captured in the following aphorism:

(69) *Morphophonological Rule 2 (M2)—De-affrication*
- In noun roots ending in the sequence /cV-/, the /c/ 'hardens' to [k] when the final vowel is substracted by the nominative or instrumental case suffixes.

As a final note, a trend toward de-affrication has been noted among younger speakers and those from certain areas (like *Loúsúna* valley). These speakers

like to pronounce words like *jeje-* 'leather mat' as *gege-* and *ɲjíní-* 'we.INC' as *ŋgíní-*. Obviously, in these examples, the phonological motivation (de-affrication before non-high vowels) is not the same as in (68), since both words contain front vowels. So this type of de-affrication may just be an idiosyncratic preference of some speakers, or it may have historical explanations not immediately recognizable today.

2.5.3 Non-final deletion

Non-final deletion refers to the situation where the final consonant of a morpheme is deleted in phrase-medial environments (i.e., not before a pause). So it occurs in the exact opposite environment as devoicing (§2.3.1):

(70)   *Morphophonological Rule 3 (M3)—Non-final deletion*
- In many grammatical morphemes ending in the sequence /…CV/, the consonant (C) is deleted in phrase-medial positions.

Although it can affect any class of morpheme, non-final deletion must be considered morphophonological because only certain morphemes are affected and not others. Below is a representative sample of the morphemes known to undergo non-final deletion. The reader is referred to the Affix list for more information on identifying each morpheme.

(71)   *Non-final allomorphs*

Morpheme	Underlying	Non-final
ACC	-ka	-a
ADV	=ɹɪkɛ	=ɹɪɪ
DAT	-kɛ	-ɛ
DP	=´dɛ	=´ɛ
PRF	-´ka	-´a
PST2	=batse	=bɛɛ

2.5.4 Vowel assimilation

Vowel assimilation is widespread in Ik just as it is in neighboring Turkana (Dimmendaal 1983:29). Being aware the various types of assimilation is one of the keys to unlocking the larger system of Ik grammar. The types of assimilation attested include total and partial, regressive and progressive, adjacent and non-adjacent, in several combinations. Each type occurs between certain morphemes and not others, and no type occurs within single morphemes, but only between morphemes. Refer back to §2.2.3 for evidence of non-assimilated vowel sequences within lexical roots.

(72)　*Morphophonological Rule 4 (M4)—Vowel assimilation*
- Particular vowel combinations across particular morpheme boundaries tend to assimilate to each other.

Total Regressive Assimilation is when the second vowel in a two-vowel sequence changes the first vowel to make it identical with it. The process may involve rounding, backing, raising, or lowering, depending on the vowels concerned. In Ik this occurs between noun stems and case suffixes and between verb stems and TAM (tense-aspect-mood/modality) suffixes. All vowels may be assimilated in this way, apart from the high [+ATR] /i/ and /u/ and the mid vowels /o/ and /ɔ/. In some cases, one consonant may intervene, making the assimilation non-adjacent. The table in (73) lists the known sequences resulting from *total regressive assimilation*. The arrow (→) signifies the direction of assimilation, i.e. regressive in this case:

(73)　*Types of total regressive assimilation*

Rounding/backing	e←o	=	oo
	ɛ←ɔ	=	ɔɔ
Rounding/backing/raising	a←o	=	oo
	a←ɔ	=	ɔɔ
Rounding/backing/lowering	ɪ←ɔ	=	ɔɔ
Backing/lowering	ɪ←a	=	aa

Lowering	ʊ←ɔ	=	ɔɔ
	ɪ←ɛ	=	ɛɛ
Fronting/raising	a←e	=	ee
	a←ɛ	=	ɛɛ

The sequences of assimilated vowels in (73) are found in noun and verb stems like the following:

(74) *Examples of total regressive assimilation*

mucé-ó	→	mucó-ó	path-ABL/COP
mɛsɛ-ɔ	→	mɛsɔ-ɔ	beer-ABL/COP
ɪɗɪm-ɛt-ɔ́s	→	ɪɗɪm-ɔt-ɔ́s	creature
da-on	→	do-on	be.nice-INF
tsá-ón	→	tsó-ón	be.dry-INF
séda-o	→	sédo-o	garden-ABL/COP
gwa-ɔ	→	gwɔ-ɔ	stomach- ABL/COP
ɓɛḱɛ́s-í-ɔ	→	ɓɛḱ-ɛ́s-ɔ́-ɔ	walk-IPFV-3SG-SEQ
sɪsí-á	→	sɪsá-á	honey.beer-ACC
kafʊ-ɔ	→	kafɔ-ɔ	thorn-ABL/COP
ɓɛḱɛ́s-í-ɛ	→	ɓɛḱɛ́s-ɛ́-ɛ	walk-3SG-SIML
da-és	→	de-és	be.nice-INT
tsá-és	→	tsé-és	be.dry-INT
séda-e	→	séde-e	garden-GEN/DAT
ɓɪsá-ɛ́	→	ɓɪsɛ́-ɛ́	spear-GEN/DAT

A further example of this kind of assimilation in a clausal context is when the negator verb *ńt-* comes before verbs that begin with a vowel:

(75) *Nte enid.*

ńt-á	en-íd[i]	→	ńt-é en-íd[i]
not-REAL	see-2SG[IRR]		

You don't see (it).

Partial regressive assimilation, by contrast, occurs when the second vowel in a sequence of two vowels (adjacent or not) changes the first vowel to be more but not totally like it. This assimilation only takes place in Ik when the first vowel is a high front vowel (/i, ɪ/) and the second vowel a mid back vowel (/o, ɔ/), which for nouns might be the ablative or copulative case and for verbs the sequential or plural imperative suffixes. This type of assimilation involves rounding and backing. *Adjacent* partial regressive assimilation affects only the [+ATR] /i/, while the *non-adjacent* type (with /k/ intervening) affects both the [+ATR] /i/ and the [-ATR] /ɪ/:

(76) *Types of partial regressive assimilation*

Rounding/backing	i←o	=	uo
	ɪ←ɔ	=	ʊɔ

These partially assimilated sequences are take from words like:

(77) *Examples of partial regressive assimilation*

ats-i-o	→	ats-u-o	come-3SG-SEQ
ats-íó	→	ats-úó	come-IMP.PL
ɗí-ó	→	ɗú-ó	ones-ABL/COP
cekí-ó	→	cekú-ó	woman-ABL/COP

The non-adjacent type occurs with the final form (FF) of the copulative case marker and the sequential aspect suffix, both of which contain a /k/:

(78) *Examples of non-adjacent partial regressive assimilation*

ats-i-kᵒ	→	ats-u-kᵒ	come-3SG-SEQ.FF
cekí-kᵒ	→	cekú-kᵒ	woman-COP.FF
áts'-í-kɔ	→	áts'-ó-kɔ	gnaw-3SG.SEQ.FF
kɔnɪ-kɔ	→	kɔnʊ-kɔ	one-COP.FF

Total progressive assimilation is when the first vowel in a sequence of two vowels changes the second vowel to be identical with it. The change may

involve raising, lowering, backing, fronting, rounding, and unrounding. This type of assimilation shows up in three specific morphological contexts:

1. When the non-final form (=´e/=´ɛ) of the dummy pronoun clitic {=´dɛ} follows any TAM verbal suffix,
2. When the andative/completive suffix {-ʊ̥ɔtí-} follows either a) the pluractional suffix {-í-} or b) a verb root whose root-final velar consonant has been deleted by haplology (see §2.5.1),
3. When a verb stem whose last vowel is high and back is followed by a) the causative suffix {-ɪt-} or b) the reciprocal suffix {-ínɔ́sí-} (with or without an intervening consonant).

The affected vowel sequences are listed below according to context:

(79)   *Types of total progressive assimilation*

Raising	i→e	=	ii
	ɪ→ɛ	=	ɪɪ
Backing/rounding	o→e	=	oo
	ɔ→ɛ	=	ɔɔ
Lowering/backing	a→e	=	aa
	a→ɛ	=	aa
Backing	i→u	=	ii
Lowering	o→u	=	oo
	ɔ→ʊ	=	ɔɔ
Lowering/fronting/unrounding	a→u	=	aa
	a→ʊ	=	aa
Backing/rounding	u→i	=	uu
	ʊ→ɪ	=	ʊʊ

Examples of the first morphological context include the following:

(80)   *Examples of total progressive assimilation*

ƙa-iní=e	→	ƙa-iní=i	go-SEQ=DP
kʊt-ɪní=ɛ	→	kʊt-ɪní=ɪ	say-SEQ=DP
ƙa-i-kó=e	→	ƙa-i-kó=o	go-3SG-SEQ=DP
kʊt-ɪ-kɔ́=ɛ	→	kʊt-ʊ-kɔ́=ɔ	say-3SG-SEQ=DP

Examples of the second morphological context include the following:

(81)   *More examples of total progressive assimilation*

ƙwaɗ-í-úƙot-átᵃ	→	ƙwaɗ-í-íƙot-át-ᵃ	few-PLUR-COMP-3PL-REAL
ɪlɪɓ-áák-ʊƙɔt-ɪn	→	ɪlɪɓ-á-áƙɔt-ɪn	green-DISTR-COMP-SEQ
kɔk-ʊƙɔt-ᵋ	→	kɔ-ɔƙɔt-ᵋ	close-COMP-IMP.SG
ze-ik-áák-uƙot-in	→	ze-ik-á-áƙot-in	big-ADJ.PL-DISTR-COMP-SEQ

Lastly, examples of the third morphological context include:

(82)   *Yet more examples of total progressive assimilation*

ɗus-it-es	→	ɗus-ut-es	cut-CAUS-INF
itúr-ít-és	→	itúr-út-és	boast-CAUS-INF
ru-it-et-és	→	ru-ut-et-és	uproot-CAUS-VEN-INF
ɗúl-ínós	→	ɗúl-únós	oppress-RECIP
tolú-ínós	→	tolú-únós	betray-RECIP
ts'ún-únɔ́s	→	ts'ún-únɔ́s	kiss-RECIP

Just as the vowels /ɪ,i/ in this third environment get backed and rounded, the reciprocal suffix {-ínɔ́sí-} also shows vowel rounding after any labial consonants like /b/, /ɓ/, and /m/:

(83)
ts'áb-inós	→	ts'áb-unós	hate-RECIP
sáɓ-ínós	→	sáɓ-únós	kill-RECIP
tsám-ínɔ́s	→	tsám-únɔ́s	like-RECIP

Labially induced assimilation like this also occurs in Ik's sister language So, where it is called 'labial attraction' (Carlin 1993:24, 88). This shows up, for example, when the So word *nɛb-an* 'person-DEM.SG' becomes *nɛb-un*.

Finally, *partial progressive assimilation* is when the first vowel in a sequence of two vowels changes the second one to be more like it but not totally. This only happens when the andative/completive suffix {-ʊƙɔtí-} follows a verb root ending in /e/, /ɛ/, or /a/. The affected sequences are:

(84)   *Types of partial progressive assimilation*

Fronting	e→u	=	ei
	ɛ→ʊ	=	ɛɪ
	a→u	=	ai
	a→ʊ	=	aɪ

These sequences are derived from verb forms like the following:

(85)   *Examples of partial progressive assimilation*

ts'é-úƙot-át-a-kᵃ	→	ts'é-íƙot-át-a-kᵃ	die-COMP-3PL-REAL-PRF
ɪɓéɓɛ́-ʊƙɔt-á-kᵃ	→	ɪɓéɓɛ́-ɪƙɔt-á-kᵃ	lay.eggs-COMP-REAL-PRF
tsá-úƙot-á-kᵃ	→	tsá-íƙot-á-kᵃ	dry-COMP-REAL-PRF
ɪlá-úƙɔt-á-kᵃ	→	ɪlá-íƙɔt-á-kᵃ	go-AND-REAL-PRF

To conclude, the table below shows all the sequences of vowels involved in the various types of assimilation described in the preceding paragraphs:

(86)   *Ik vowel assimilation types*

	Progressive			Regressive		
Partial	e→u	=	ei	i←o	=	uo
	ɛ→ʊ	=	ɛɪ	i←kᵒ	=	ukᵒ
	a→u	=	ai	ɪ←kᵓ	=	ʊkᵓ
	a→ʊ	=	aɪ			
Total	i→e	=	ii	e←o	=	oo
	ɪ→ɛ	=	ɪɪ	a←o	=	oo
	o→e	=	oo	ɛ←ɔ	=	ɔɔ
	ɔ→ɛ	=	ɔɔ	a←ɔ	=	ɔɔ
	a→e	=	aa	ɪ←ɔ	=	ɔɔ
	a→ɛ	=	aa	ʊ←ɔ	=	ɔɔ
	i→u	=	ii	a←e	=	ee
	o→u	=	oo	a←ɛ	=	ɛɛ
	ɔ→ʊ	=	ɔɔ	ɪ←ɛ	=	ɛɛ
	a→u	=	aa	ɪ←a	=	aa
	a→ʊ	=	aa			
	u(C)→i	=	u(C)			
	ʊ(C)→ɪ	=	u			
			ʊ(C)ʊ			

3 Suprasegmental Phonology

Suprasegmental phonology covers those properties of the Ik sound system whose domain may be greater than the single segment or syllable. Ik vowel harmony (§3.1) and tone (§3.2) fall into this category and so are treated here together. They also belong together for other reasons, namely that they have been the most difficult apsect of Ik phonology to comprehend and are crucial characteristics of the overall Ik grammar and lexicon.

3.1 Vowel harmony

In their survey of African vowel harmony systems, Hall et al. noted that for 'Teuso' (Ik), 'no information' was available (1974:257). This section is intended to partly remedy that situation. Like many sub-Saharan languages, particularly in Nilo-Saharan, Ik shows a system of vowel harmony. This puts it in the areal company of Eastern Nilotic (Teso-Turkana), Southern Nilotic (Pokot, Kalenjin), Western Nilotic (Acholi, Lango), as well as the Cushitic Somali and Kuliak (Rub) So. Ik is a 9-vowel harmony language with two sets of high contrastive vowels—a /2IU/ system in Casali's typology (2008:504)—two sets of mid contrastive vowels and one low vowel:

(1) *Ik 9-vowel harmony system*

[+ATR]	FRONT	CENTRAL	BACK
HIGH	i		u
MID	e		o
[-ATR]	FRONT	CENTRAL	BACK
HIGH	ɪ		ʊ
MID	ɛ		ɔ
LOW		a	

Vowel harmony is a general condition in the language that all vowels in a given phonological word have the same value for the feature Advanced Tongue Root or [ATR]. Cross-linguistically, the phonetic correlates of ATR vary from tongue-root frontness/backness to tongue-body height to laryngeal-cavity volume. Because it requires instrumental measurements, the exact phonetic manifestation of ATR in Ik has not been determined.

Ik is a [+ATR]-dominant language with dominant-recessive harmony. Harmony spread is bi-directional. Lexical roots are specified underlyingly for [ATR], and [+ATR] roots spread harmony rightward to any recessive suffixes. All synchronic Ik affixes are suffixes, and these suffixes are also specified underlyingly for [ATR]. Three suffixes with high front vowels are dominantly [+ATR], harmonizing the stem in both directions as far as possible (§3.1.2). Nine other suffixes containing /a/ as one or the only vowel are also [+ATR] but can only harmonize rightward due to /a/'s opacity (§3.1.3). Most suffixes in the language are recessively [-ATR] (§3.1.4). However, two unique [-ATR] suffixes containing /a/ block bi-directional [+ATR] spread, also due to /a/'s opacity (§3.1.5). The phonological domain over which Ik lexical vowel harmony presides is the phonological word, which may include a root, suffixes, and clitics.

From a typological point of view, the Ik system is interesting in the following respects (Casali, p.c.). First, roots and affixes whose only vowel is /a/ can be specified for either [ATR] value underlyingly. In other languages, /a/ often has a [+ATR] allophone in [+ATR] environments (Casali 2008:502), but in Ik there is no indication of this. This leads to a second fascinating feature: Because 1) /a/ is inherently [-ATR] and 2) morphemes containing only /a/ can be [+ATR], this requires positing a floating [+ATR] feature that can spread rightward but not leftward (i.e. through /a/ which is opaque). Third, though [+ATR] vowels are dominant and marked, they statistically outnumber [-ATR] vowels almost two-to-one (see §3.1.1).

3.1.1 Lexical vowel harmony

Vowel harmony in Ik operates at both the lexical and post-lexical levels
(§3.1.6) of phonological representation. The lexical forms of all Ik roots and
affixes are specified as either [+ATR] or [-ATR]. In the present analysis, the
[ATR] specification—as an autosegment on a separate tier from the
segmental—is a property of morphemes, not of individual vowels. As an
autosegment, it links up to any available vowel in the morpheme.

From a traditional structuralist point of view, the nine vowels shown above
in (1) are seen as invididual 'phonemes'. This view is fine and creates no
problems for the analysis of Ik vowel harmony. But following Kutsch-
Lojenga's analysis of Ngiti vowel harmony (1994:56), a more generativist
view is also possible, namely that—leaving aside /a/ for the moment—Ik
has four 'archi-phonemes' underspecified for [ATR] in deep structure:

(2)   *Ik archi-phonemic vowels*

	[+/-ATR]	[-ATR]	[+/-ATR]
	FRONT	CENTRAL	BACK
HIGH	I		U
MID	E		O
LOW		a	

In this analysis, while the low vowel /a/ stays inherently [-ATR], the other
eight Ik vowels can be viewed as generated by these four archi-phonemes
that get specified for their 'allo-phoneme' by a given morpheme's [ATR]
specification. Though quite abstract, this view may help account for why (in
my experience with Ik and Atɛsɔ), vowel harmony falls largely below the
perceptual threshold for native speakers. Paradoxically, the nine surface
allophones (or 'allo-phonemes') of the archi-phonemes are also 'phonemes'
themselves. This suggests that the strict division between 'phoneme' and
'allophone' may prove less than adequate for such vowel harmony systems.

With the archi-phonemic analysis in the background, lexical (near-) minimal pairs like the following can be viewed as (nearly) the same sequence of segments, only with different [ATR] (and in some case tone) specifications:

(3)   *[ATR] (near-) minimal pairs*

Nouns		Verbs	
gúró-	'heart'	bot-	'migrate'
gʊra-	'Sickle-bush tree'	bɔt-	'peel'
ikóŋá-	'oath'	bun-	'join in'
ɪkɔŋa-	'fried beer mash'	ɓʊn-	'pass by'
ínó-	'animal'	isá-	'do first'
ɪnɔ́-	'Milkbush'	ɪsa-	'miss (a shot)'
koni-	'ligament'	isép-	'flow'
kɔní-	'one'	ɪsɛ́p-	'be lame'
ɓóré-	'back of knee'	kup-	'be cloudy'
ɓɔ́rɛ́-	'ladle'	kʊp-	'burn'

At an autosegmental level of representation, words like the above ones for 'back of knee' and 'ladle' can be depicted as in (4). Here, the relevant archi-phonemic vowels get specified for either of the two [ATR] values:

(4)   'back of knee'   'ladle'
        [+ATR]   [-ATR]

        /ɓÓrÉ/ → ɓóré-   /ɓÓrÉ/ → ɓɔ́rɛ́-

Less abstractly, it can be said that the two nouns in (4) simply contain similar (only different in [ATR]) vowels from the nine-vowel inventory.

Whatever theoretical interpretation one may make, Ik lexical roots can be neatly divided into two groups according to their [ATR] specification. The following table offers a few more examples of this. [+ATR] lexical roots are more numerous than [-ATR] ones. In a sample of 1930 noun roots, approximately 60% were found to be [+ATR] and 40% [-ATR]. Conversely, there are far more [-ATR] suffixes than there are [+ATR] ones (§3.1.4).

(5)   *Lexical [ATR] specification on nouns and verbs*

Nouns			
[+ATR]		[-ATR]	
bíroó-	'bird sp.'	bílɔɔrɔ́-	'bird sp.'
demio-	'Wild olive tree'	cɛmɛrɪ-	'herb'
fetí-	'sun'	dʊɗέrɛ-	'water beetle'
girúu-	'locust'	ɗɛrétɔ́-	'Sudan gum arabic'
hoo-	'hut'	ɛkɛʊ́-	'muscle fiber'
ídeme-	'snake'	gɔgɔmɔ́-	'breast-bone'
jíjei-	'opposite bank'	ɟɪrɔkʊ-	'toy spear'
ɟolílé-	'Black kite'	kíɗɔlέɛ-	'young baboon'
nébu-	'body'	ƙɔfɔ́ɔ-	'calabash'
rébe-	'finger millet'	ɲέɛsɛɛ́-	'big rock'
Verbs			
[+ATR]		[-ATR]	
bíz-	'press'	bέɗ-	'want'
ɓoɓ-	'be deep'	ɓɔ́ŋ-	'be nearly ripe'
dim-	'refuse'	cɛm-	'fight'
erég-	'use'	dʊ́b-	'catch'
fóɟ-	'whistle'	gwɪr-	'jump up and down'
góóz-	'throw away'	hɔn-	'drive'
hoɗ-	'free'	ɪfɔ-	'scoot'
itél-	'watch'	ɟɛɟ-	'stay'
luƙ-	'swallow'	kɔ́ŋ-	'cook'
mídz-	'smell'	ƙʊɗ-	'suck'

In 9-vowel systems, it is cross-linguistically common for a low vowel to combine in roots with vowels of either [ATR] value (Casali 2008:528). This is certainly the case in Ik. Though inherently [-ATR], /a/ is found within morphemes with both [+ATR] and [-ATR] vowels in a variety of arrangements. This is illustrated below with only nouns, as most verb roots have a (i)CVC- profile. For VV combinations involving /a/, see §2.2.3:

(6)   */a/ in combinaton with other vowels*

Nouns			
[+ATR]		[-ATR]	
abúba-	'spider'	abɛta-	'Sitatunga antelope'
bácíka-	'area'	barísá-	'male hyrax'
ɓiɓa-	'egg'	ɓɪsá-	'spear'
céŋá-	'joke'	cɛŋá-	'woodpecker'
dokira-	'old honeycomb'	dɛdɛsa-	'Willow warbler'
ɗario-	'dirty teeth'	ɗamʊ́-	'brain'
faido-	'Ebony tree'	ɛ́ba-	'horn'
gasoó-	'warthog'	gáʒadɪ-	'Red-pod terminalia'
haúu-	'Spotted hyena'	ɪláŋí-	'Indian jujube'
ƙálíts'i-	'jaw'	ƙɛƙérá-	'grasshopper'

In light of the above data, a crucial claim for the Ik harmony system is that there are not two phonetically different /a/ vowels. This claim has yet to be confirmed by extensive instrumental evidence. But initial investigations reveal no detectable phonetic difference between the /a/'s in [+ATR] and [-ATR] environments (Casali, p.c.). This is corroborated by my auditory impressions over several years of exposure, as well as the adamant testimony of native speakers. Still, further instrumental testing is needed.

The main issue is this: It is not predictable whether a noun or verb containing /a/ as its only vowel will have [+ATR] or [-ATR] suffixes. For nouns, this is shown below by affixing the ablative case suffix {-ɔ} and for verbs either the transitive infinitive suffix {-és} or the intransitive infinitive

suffix {-ɔn}. In half of the roots shown in (7), these suffixes surface as their [+ATR] allomorphs. The vowel assimilation seen in the nouns in (7) is normal (see §2.5.4). In the [+ATR] nominal stems, vowel assimilation first takes place between the [-ATR] case suffix and root-final /a/ (still [-ATR] at that point). Then the [+ATR] autosegment is able to link up with both the root-final vowel (now /ɔ/) and the suffix {-ɔ} producing an /o-o/ sequence.

(7)   *[ATR] ambiguity on roots containing only /a/*

	Nouns			
	báts'á-	→	báts'ɔ́-ɔ	'from pus'
	gaɗárá-	→	gaɗárɔ́-ɔ	'from slime'
[-ATR]	gwa-	→	gwɔ-ɔ	'from the stomach'
	kanaʃaa-	→	kanaʃɔ-ɔ	'from the beehive'
	ʃara-	→	ʃarɔ-ɔ	'from the bladder'
	ámá-	→	ámó-o	'from the person'
	asaka-	→	asako-o	'from the door'
[+ATR]	kaná-	→	kanó-ó	'from the back'
	ƙwaza-	→	ƙwazo-o	'from the clothing'
	taɓá-	→	taɓó-ó	'from the rock'
	Verbs			
	áts'-	→	áts'-ɛ́s	'to gnaw'
	bar-	→	bar-ɔn	'to be rich'
[-ATR]	kán-	→	kán-ɛ́s	'to lick'
	ŋwaʃ-	→	ŋwaʃ-ɔn	'to be lame'
	tam-	→	tam-ɛ́s	'to think'
	áƙáf-	→	áƙáf-on	'to yawn'
	ats-	→	ats-on	'to come'
[+ATR]	raɟ-	→	raɟ-és	'to return'
	táb-	→	táb-es	'to touch'
	tsáŋ-	→	tsáŋ-és	'to smear'

To account for one /a/ in both [ATR] environments, it is claimed here that the feature [+ATR] simply does not link to /a/. Instead, whenever /a/ figures into a [+ATR] morpheme, it just floats its [+ATR] autosegment. But if a recessive suffix is attached to such a root, the floating [+ATR] autosegment spreads its harmony to it. This analysis is illustrated below, where the symbol (⁺) is used to signify the floating [+ATR] autosegment (on analogy with a floating tone). Note that for (8), vowel assimilation is shown to have already occurred at the docking of the [+ATR] autosegment:

(8)　'person'　　　　　　　'from the person'

[+ATR]　　　　　　　　　[+ATR]

$\diagdown$　　　　　　　　　　$\diagdown$

　　ámá$^+$-　　　　　　　　ámɔ́-ɔ　　→　ámó-o

(9)　'yawn'　　　　　　　　'to yawn'

[+ATR]　　　　　　　　　[+ATR]

$\diagdown$　　　　　　　　　　$\diagdown$

　　áƙáf$^+$-　　　　　　　　áƙáf-ɔn　　→　áƙáf-on

By contrast, in [-ATR] roots, the autosegment can readily dock to /a/ and any recessive suffixes that many follow, as in:

(10)　'slime'　　　　　　　'from slime'

[-ATR]　　　　　　　　　[-ATR]

　　gaɗárá-　　　　　　　　gaɗárɔ́-ɔ

(11)　'think'　　　　　　　'to think'

[-ATR]　　　　　　　　　[-ATR]

　　tam-　　　　　　　　　tam-ɛ́s

3.1.2 Dominant suffixes

As already noted, Ik is a [+ATR]-dominant language. In principle then, all [+ATR] suffixes (in addition to roots) are also dominant. In reality though, some [+ATR] suffixes contain /a/ which blocks harmony spread back to the stem; it only spreads rightward to other suffixes. These opaque dominant suffixes are treated below in §3.1.3. The present section concerns the three non-opaque dominant suffixes. These are the pluractional aspect suffix {-í-}, the plurative I nominal pluralizer {-íkó-}, and the middle voice suffix {-ím-}. All three of these suffixes spread harmony in both directions until they encounter an /a/ (if any). Incidentally, they all have H tone:

(12)   *Ik dominant [+ATR] suffixes*

{-í-}	PLUR	Pluractional	(§7.7.7)
{-íkó-}	PL	Plurative I	(§4.2.1)
{-ím-}	MID	Middle	(§7.8.5)

To illustrate the harmony spread of {-í-}, a set of verbs is given below. In the first column is found the [-ATR] verb root. This is then followed by a 1PL.EXC verb containing the pluractional suffix which gives the verb a nuance of habitualness or repetitiveness. The 1PL.EXC bound pronominal is the recessive {-ím(í-)} that is harmonized by the pluractional suffix. Note that if the root-final vowel is /a/, it vowel blocks [+ATR] spread from {-í-}:

(13)   *Vowel harmony spread by the pluractional {-í-}*

bɛr-	ber-í-ím	'We (always/usually) build.'
íbaɗ-	íbaɗ-i-ím	'We (always/usually) knock over.'
ɪdĭm-	idim-i-ím	'We (always/usually) make.'
ƙɔ́ɗ-	ƙóɗ-i-ím	'We (always/usually) cry.'
zík-	zík-i-ím	'We (always/usually) tie.'

Then, to illustrate the harmony spread of the plurative {-íkó-}, a set of nouns is given below. The singular [-ATR] noun root is shown in the first

column. And this is followed by the plural bearing the plurative I suffix and then the recessive copluative case marker {-kɔ} in its non-final allomorph /-o/. Note the bi-directional [+ATR] harmony spread out from {-íkó-}:

(14)   *Vowel harmony spread by the plurative {-íkó-}*

kɔlá-	kól-íkó-o	'Is it uncastrated goats?'
ƙɔ́rɛ́-	ƙór-íkó-o	'Is it ladles?'
ŋɛ́rá-	ŋér-íkó-o	'Is it mingling sticks?'
ɔrɔrɔ́-	orór-íkó-o	'Is it smalls streams?'
wɛla-	wél-íkó-o	'Is it small openings?'

Lastly, to illustrate the harmony spread of the middle suffix {-ím-}, a sample of Ik verbs is given in (15). The first column contains [-ATR] roots, while the second column shows the full harmonized stems. The middle suffix not only harmonizes leftward to the root but also rightward to the inchoative aspect marker {-ɛ́t} and the intransitive infinitive marker {-ɔn}. However, harmony spread to the root is blocked by /a/ in the case of *ɩraŋíméton*:

(15)   *Vowel harmony spread by the middle {-ím-}*

ɩɓúts-	iɓuts-ím-ét-on	'to be mistaken'
ɩlɔ́-	ilo-ím-ét-on	'to be defeated'
ɩráŋ-	ɩraŋ-ím-ét-on	'to be ruined'
kɔk-	kok-ím-ét-on	'to shut
tʊɓʊ́n-	tuɓun-ím-ét-on	'to close off'

3.1.3 Opaque dominant suffixes

Nine Ik suffixes are dominantly [+ATR] but differ from those in (12) in that they contain /a/ as one or their only vowel. These 'opaque dominant suffixes' include the suffix {-a⁺}, which is identical as the nominative case and realis modality markers; the distributive adjectival suffix {-aák⁺-}, the patientive {-amá⁺-}, the stative adjectival suffix {-án⁺}, the

hortative/optative {-anó}, the 3PL bound pronominal suffix {-áti-}, the accusative case suffix {-ka⁺}, and the present perfect aspect suffix {-´ka⁺}:

(16)   *Ik opaque dominant [+ATR] suffixes*

{-a⁺-}	NOM	Nominative case	§6.3.2
{-a⁺-}	REAL	Realis modality	§7.6.2
{-aák⁺-}	DISTR	Distributive adjectival	§7.9.6
{-amá⁺-}	PAT	Patientive nominalizer	§7.2.4
{-án⁺-}	STAT	Stative adjectival	§7.9.3
{-anó}	OPT	Hortative/optative	§7.7.4
{-áti-}	3PL	3-person plural	§7.4
{-ka⁺}	ACC	Accusative case	§6.3.6
{-´ka⁺}	PRF	Present perfect	§7.8.7

All nine of these suffixes harmonize [-ATR] vowels rightward (if no other /a/ intervenes) but not leftward. Apart from the hortative/optative suffix {-anó} and the 3PL bound pronominal {-áti-}, which have underlying [+ATR] vowels /o/ and /i/, these opaque suffixes have only a floating [+ATR] autosegment. Since [+ATR] is dominant, it spreads to any following suffixes, but it cannot spread through the /a/ back to the root.

The rightward-only dominance of the nominative case and realis modality suffix {-a⁺} is illustrated in the next two tables. In the nominal system, the remote past demonstrative/tense enclitic {=nɔɔ} is contrasted on nouns with and without the nominative case suffix:

(17)   *Rightward-only dominance of nominative {-a⁺}*

Nouns with {-a⁺}		Nouns without {-a⁺}	
éb-a=nokᵒ	'that gun'	ébɔ-ɔ=nɔkᵓ	'It was a gun.'
fiyɔ-a=nokᵒ	'that cow'	fiyɔ-ɔ=nɔkᵓ	'It was a cow.'
mʊtú-á=nokᵒ	'that needle'	mʊtú-ɔ́=nɔkᵓ	'It was a needle.'

In the verbal system, the same tensed enclitic {=nɔɔ} is contrasted on verbs with and without the realis suffix:

(18) *Rightward-only dominance of realis {-a⁺}*

Verbs with {-a⁺}		Verbs without {-a⁺}	
bɛr-a=nokᵒ	'He built.'	bɛr-ʊƙɔ́ɔ=nɔkᵓ	'He built with it.'
ƙɔ́ɗ-a=nokᵒ	'He cried.'	ƙɔ́ɗ-ʊƙɔ́ɔ=nɔkᵓ	'He cried from it.'
dʊ́b-a=nokᵒ	'He caught.'	dʊ́b-ʊƙɔ́ɔ=nɔkᵓ	'He caught with it.'

Moving on to the distributive adjectival suffix {-aák⁺-}, its rightward-only harmony spread caused by /a/ is shown below. The first column of (19) contains [-ATR] verb roots. Then in the second column are verbs stems with {-aák⁺-} followed by the recessive intransitive infinitive {-ɔn} and the completive aspect {-ʊƙɔt}. It is clear from these examples that the distributive suffix spreads harmony to the suffixes but not back to the root:

(19) *Rightward-only dominance of distributive {-aák⁺-}*

cɪ-	cɪ-aak-ón-uƙot	'to get full (of multiple people)'
ɗɔƙ-	ɗɔƙ-aak-ón-uƙot	'to become wet (of multiple entities)'
ɪlɪ́ɓ-	ɪlɪ́ɓ-aak-ón-uƙot	'to become green (of multiple entities)'

Next, the rightward-only dominance of the patientive nominalizer {-amá⁺-} is illustrated in the following table. This [+ATR] suffix spreads harmony to the the non-final copulative case suffix {-(k)ɔ} but not back to the stem:

(20) *Rightward-only dominance of patientive {-amá⁺-}*

bɪt-	bɪt-ɪt-amó-o	'Is it (a) reproducible?'
ɗɪƙw-	ɗɪƙw-amó-o	'Is it a pillow?'
íbɔts-	íbɔts-amó-o	'Is it (a) curdlable (i.e. milk cream)?'

The stative adjectival suffix {-án⁺-} also only harmonizes recessive vowels to its right. This is shown below with verb stems in the intransitive infinitive

(marked by {-ɔn}). Observe that the verb stem before the stative may be [-ATR], but the infinitive suffix also surfaces as [+ATR]:

(21)   *Rightward-only dominance the stative adjectival {-án⁺-}*

ɓɛl-	'crack'	ɓɛléɓél-án-ón	'to crack, chap'
cɛm-	'fight'	cɛmɛk-án-ón	'to be combative'
zík-	'tie'	zíkízɪk-án-on	'to be all tied up'

As another opaque dominant morpheme, the hortative (or 1PL.INC optative) suffix {-anoˊ} also only harmonizes rightward. Because it contains the [+ATR] vowel /o/, no floating [+ATR] autosegment is posited. The morpheme's [+ATR] specification can be associated with /o/. The following table shows the invariability of /o/ on the one hand, and the failure of preceding [-ATR] stems to harmonize on the other hand:

(22)   *Rightward-only dominance the hortative/optative {-anoˊ}*

cɛ-	'kill'	cɛ-íƙɔ́t-anoˊ	'Let's kill (it).'
dʊ́b-	'catch'	dʊ́b-anoˊ	'Let's catch (it).'
kɔk-	'close'	kɔ́k-ét-anoˊ	'Let's close up.'

Like {-anoˊ}, the 3PL subject-agreement pronominal {-áti-} also has a [+ATR] vowel in its underlying form. This vowel, /i/, provides a segment to which the morpheme's [+ATR] autosegment can link to. In those verb paradigms that preserve /i/ on this suffix, it spreads harmony rightward in accordance with the language's [+ATR] dominance.

In (23) below, the first column contains a [-ATR] verb. This is followed in column two by verb stems with {-áti-} and the recessive simultaneous aspect marker {-kɛ} in its non-final allomorph /-ɛ/. The first example also has the completive aspect suffix {-ʊƙɔt} showing some vowel assimilation. What is evident from (23) is that any vowels to the right of {-áti-} surface as [+ATR], while any to the left may be [-ATR]. (And if they are [+ATR], it is because the root has spread its dominant harmony rightward):

(23)   *Rightward-only dominance of 3PL {-áti-}*

ɪlɪlí-	ɪlɪlí-íʄɔt-áti-e	'they getting angry'
kɔrɔ́ʄɔ́m-	kɔrɔ́ʄɔ́m-áti-e	'they being emaciated'
ɲɛdɛ́d-	ɲɛdɛ́d-ati-e	'they protruding'

The accusative case suffix {-ka⁺} is yet another opaque dominant [+ATR] morpheme. Because no other suffix can follow {-ka⁺}, its harmonizing behaviour can only be seen with enclitics. In the next table, the singular anaphoric demonstrative {=ˈdɛ́ɛ́} is appended to the non-final accusative case allomorph /-a/ on three nouns. Note that while the anaphoric enclitic is harmonized, the nominal stem preceding {-ka⁺} remains [-ATR]:

(23)   *Rightward-only dominance of the accusative {-ka⁺}*

fiyɔɔ-	fiyɔ-a=ˈdéé	'that cow'
ʄɛʄɛrá-	ʄɛʄɛrá-á=ˈdéé	'that grasshopper'
pɔpɔsa-	pɔpɔsa-a=ˈdéé	'that lizard'

The final opaque suffix to be discussed is the present perfect aspect marker {-ˈka⁺}. In the following table, this suffix is placed on [-ATR] verbs and followed by the dummy pronoun enclitic {=ˈdɛ} in its non-final allomorph /=ˈɛ/. Observe how the present perfect suffix {-ˈka⁺} harmonizes the dummy pronoun enclitic but cannot harmonize back to the verb due to /a/:

(24)   *Rightward-only dominance of the present perfect {-ˈka⁺}*

cɛ-	cɛ-á-ké=e	'Has he killed (with it)?'
ɪtsúŋ-	ɪtsúŋ-á-ké=e	'Has he burnt (with it)?'
ʄɔʄ-	ʄɔʄ-á-ké=e	'Has he cried (for it)?'

The human singulative suffix {-Vma-} varies in its morphological [ATR] specification. With a [-ATR] value, it takes the form {-ɔma-} as in *kɔ́n-ɔ́ma-* 'someone (strange)'. And with a [+ATR] value, it takes the form {-ama⁺-} as in *ŋímɔ́kɔká-áma-* 'young man'. In the latter form, it too functions as an oqaque dominant suffix, for example in *ŋímɔ́kɔká-ámo-o* 'Is it a young man?'.

3.1.4 Recessive suffixes

However, most Ik affixes are recessively [-ATR]. For a full list of these morphemes, the reader is referred to the Affix list at the book's beginning. A few examples suffice here: 1) First, in (25), a comparative non-final form case paradigm with a plural [-ATR] noun and a plural [+ATR] noun—both marked by the plurative III suffix {-ɪka-}. 2) Then in (26), a table comparing [-ATR] and [+ATR] verbs with three suffixes after the root: the causative {-ɪt-}, the inchoative aspect {-ɛ́t}, and the transitive infinitive {-ɛ́s}:

(25)   *Comparative case paradigm illustrating recessive nominal suffixes*

		[-ATR]	[+ATR]
Case	Case suffix	'arms'	'mountains'
OBL	-∅	kwɛt-ɪka	kwar-ika
NOM	-a	kwɛt-ɪk-a	kwar-ik-a
INS	-ɔ	kwɛt-ɪk-ɔ	kwar-ik-o
ABL	-ɔ	kwɛt-ɪkɔ-ɔ	kwar-iko-o
GEN	-ɛ	kwɛt-ɪkɛ-ɛ	kwar-ike-e
ACC	-(k)a	kwɛt-ɪka-a	kwar-ika-a
DAT	-(k)ɛ	kwɛt-ɪkɛ-ɛ	kwar-ike-e
COP	-(k)ɔ	kwɛt-ɪkɔ-ɔ	kwar-iko-o

(26)   *Verbs illustrating recessive verbal suffixes*

[-ATR]		[+ATR]	
bɪt-ɪt-ɛt-ɛ́s	'to multiply'	aĕ-it-et-és	'to light'
ɪ̯ɛ́ɓ-ít-ɛt-ɛ́s	'to make cold'	déƙw-ít-et-és	'to rebuke'
ɪ̯án-ít-ɛt-ɛ́s	'to explain'	ɗóɗ-ít-et-és	'to show'
ɪlɛ́lɛ́-ít-ɛt-ɛ́s	'to disgust'	en-it-et-és	'to clarify'
ɪtsán-ít-ɛt-ɛ́s	'to cause trouble'	fek-it-et-és	'to amuse'
ƙídz-ɪt-ɛt-ɛ́s	'to compare'	fiyek-it-et-és	'to invigorate'
ŋƙ-ɪt-ɛt-ɛ́s	'to feed'	irím-ít-et-és-	'to spin around'
zɛƙw-ɪt-ɛt-ɛ́s	'to settle'	ƙám-ít-et-és	'to equate'

As long as no /a/ interferes, [+ATR] vowel harmony continues from the root rightward to the end of the phonological word. The two sentences below further illustrate this with longer verb stems:

(27)   [-ATR]   ɗɔƙ-   'wet'   →   ɗɔƙ-ɪt-ɛ́s-úƙɔt-ím-ᵒ́
                                          wet-CAUS-INT-COMP-1PL.EXC-REAL
                                          We will make (it) wet.

        [+ATR]   ɓoɓ-   'deep'   →   ɓoɓ-it-és-úƙot-ím-ᵒ́
                                          deep-CAUS-INT-COMP-1PL.EXC-REAL
                                          We will make (it) deep.

3.1.5 Opaque recessive suffixes

Lastly, Ik has two [-ATR] suffixes opaque by virtue of containing /a/. These are the impersonal passive {-aní-} and the abstractive nominalizer {-ásí-}:

(28)   *Ik opaque recessive [-ATR] suffixes*

{-aní-}	IMP	Impersonal passive	(§7.8.3)
{-ásí-}	ABST	Abstractive nominalizer	(§7.2.3)

Both of these suffixes block harmony spread from either direction. This is illustrated in the next two tables. In (29), {-aní-} is suffixed to [+ATR] verbs and followed by the simultaneous aspect marker {-(k)ɛ}. The fact that the simultaneous aspect marker remains [-ATR] throughout indicates that [+ATR] spread from the verb root has been blocked by the /a/ in {-aní-}:

(29)   *[+ATR] harmony-blocking by {-aní-}*

gon-	gon-aní-ɛ́	'while looking'
i-	i-aní-ɛ́	'while being (somewhere)'
ƙa⁺-	ƙa-aní-ɛ́	'while going'
mor-	mor-aní-ɛ́	'while fleeing'
sár⁺-	sár-ání-ɛ́	'while still...'

Then in (30), five [+ATR] verb roots are listed in the first column. In the second column are given their simple intransitive infinitives to confirm their [+ATR] specification. After that, the abstractive nominalizer {-ásí-} is suffixed to the bare verb roots and then followed by the non-final allomorph of the instrumental case suffix {-ɔ}. The fact that the case suffix consistently surfaces as [-ATR] shows the [+ATR] harmony from the root is blocked:

(30)   *[+ATR] harmony-blocking by {-ásí-}*

Root	Infinitive	Abstract noun	
da⁺-	do-on	da-as-ɔ́	'with niceness'
gaan⁺-	gaan-ón	gáán-as-ɔ	'with badness'
háb⁺-	háb-on	háb-as-ɔ	'with heat'
kom-	kom-on	kom-ás-ɔ́	'with multiplicity'
itíón-	itíón-on	itíón-as-ɔ	'with difficulty'

3.1.6 Recessive enclitics

Up to this point, the lexical vowel harmony being discussed applied to the formation of grammatical words—roots with suffixes. But in the phonological word, post-lexical vowel harmony may also occur. The phonological word in Ik can coincide exactly with the grammatical word, but it may also include one of a set of enclitics. Among this set are found demonstratives, relative pronouns, tense markers, and adverbs. Recessive enclitics, the topic of this section, are fully harmonized by [+ATR] morphemes. Dominant [+ATR] enclitics (§3.1.7), harmonize leftward to the stem but only to the extent of one open phonetic syllable (CV or CVV).

The four enclitics that are harmonized by [+ATR] stems include the removed past tense marker =*bɛɛ*, the form =*nɔɔ* which is the same for the singular remote past relative pronoun and remote past tense marker, the singular anaphoric demonstrative =ˈ*déɛ́*, and the sentential adverb =*kɔtɔ*:

(31)   *Ik recessive enclitics*

=bɛɛ	PST2	Removed past tense marker	§7.11.1
=nɔ(k)ɔ	DEM.SG.PST3	Remote past demonstr. (sg.)	§8.2.2
=nɔ(k)ɔ	REL.SG.PST3	Remote past rel. pro. (sg.)	§5.6
=nɔ(k)ɔ	PST3	Remote past tense marker	§7.11.1
=ᶦdɛ́ɛ́	ANPH.SG	Anaphoric demonstr. (sg.)	§8.2.3
=kɔtɔ	ADV	Sentential adverb ('then, so')	§8.3

The recessive enclitics in (31) are harmonized when attached to noun or verb stems whose final morpheme is [+ATR]. To illustrate this, in (32) the singular anaphoric demonstrative =ᶦdɛ́ɛ́ and the singular remote past demonstrative =nɔkɔ are shown following first a [-ATR] nominal stem and then a stem ending with the dominantly [+ATR] Nominative case {-a⁺-}:

(32)   *Ik recessive nominal enclitics*

[-ATR] stem		[+ATR] stem	
ɲɛɠɔ-ɔ=ᶦdɛ́ɛ́	'from that hunger'	ɲɛɠ-a=ᶦdéé	'that hunger'
ts'ɪɠɔ́-ɔ́=ᶦdɛ́ɛ́	'from that bee'	ts'ɪɠ-a=ᶦdéé	'that bee'
ɲɛɠɔ-ɔ=nɔkꜗ	'from that hunger'	ɲɛɠ-a=nokꜛ	'that hunger'
ts'ɪɠɔ́-ɔ́-nɔkꜗ	'from that bee'	ts'ɪɠ-a=nokꜛ	'that bee'

And for the case of verbs, the table in (33) shows the non-final removed past tense marker =bɛɛ and the sentential adverb =kɔtɔ first on [-ATR] verb stems and then on stems ending in the [+ATR] realis suffix {-a⁺-}

(33)   *Ik recessive verbal enclitics*

[-ATR] stem	
ʃɪk-ʊ-kɔ́=ɔ=bɛɛ...	'And he hung (it) from there (yesterday).'
ʃɪk-ɔ-ɔ=kɔ́tꜗ	'And then he hung (it).'
[+ATR] stem	
ʃɪká=bee...	'He hung (it yesterday).'
ʃɪk-a=kótꜛ	'So he hangs (it).'

3.1.7 Post-lexical /i,u/-dominance

The recessive enclitics described in the previous section are harmonizable at the post-lexical level. But another type of post-lexical vowel harmony—/i,u-dominance—is also operative in Ik. It involves [+ATR] harmony spreading leftward from to *one open phonetic syllable* (CV or CVV) from the high vowels /i/ or /u/ and *only across a compound or clitic boundary*.

The uni-directionality of Ik /i,u/-dominance is a natural syntactic constraint imposed by the position of the harmonizing morpheme: as the final one in the phonological word. The harmony spread does not go beyond one phonetic syllable, that is, not past the first encountered consonant. A similar condition is reported for the Kuliak language So, where "the scope of vowel harmony does not extend beyond a preceding or following syllable" (Carlin 1993:23). Lastly, the special status of /i/ and /u/ in this kind of post-lexical harmony recalls the nearby Surmic language Didinga whose vowels /i/ and /u/ are also more dominant than others (De Jong (2004:148).

Post-lexical /i,u/-dominance takes place in two syntactic environments: 1) between the two terms of a (pro)nominal compound and 2) between certain plural enclitics and the preceding nominal stems. Each are described below.

As described in §4.3.1, Ik compounds consist of two or more (pro)nominals linked in an associative construction. The first element in the compound (N_1) is in the oblique case and therefore always ends in a vowel. Post-lexical harmony takes place in a compound if the following conditions are met: 1) the compound's N_1 is [-ATR] and 2) ends in a non-low vowel, 3) the compound's N_2 is [+ATR] and 4) begins with /i/. If these conditions are met, the final phonetic syllable of the N_1 is harmonized to [+ATR]. In the examples below, the brackets [ ] are meant to signify post-lexical vowel harmony, not necessarily any other allophonic or allotonic specifications:

(34)   */i,u/-dominance in compounds*

N₁	N₂	Compound	
ɛdɛ́ɛ-	imá-	[ɛdé-im]	'brother's child'
ɸiyɔɔ-	ído-	[ɸiyo-idwᵃ]	'cow-milk'
kaǎa-	imá-	[kaě-im]	'small car'
ƙɔfɔ́ɔ-	imá-	[ƙɔfó-im]	'small gourd'
ɲɔ́kɔkɔrɔ́-	imá-	[ɲɔ́kɔkɔró-ím]	'chick'

The second environment for post-lexical /i,u/-dominance involves enclitics. A number of Ik plural enclitics contain the high vowels /i/ or /u/. They are listed below in (35). All but the plural anaphoric demonstrative =ˈ*díí* have two different grammatical functions (due to grammaticalization):

(35)   */i,u/-dominant enclitics*

=ni	DEM.PL	Plural demonstrative	§8.2.1
	REL.PL	Plural relative pronoun	§5.6
=ní(k)i	DEM.PL:PST1	Recent past pl. dem.	§8.2.2
	REL.PL:PST1	Recent past pl. rel. pro.	§5.6
=sini	DEM.PL:PST2	Removed past pl. dem.	§8.2.2
	REL.PL:PST2	Removed past pl. rel. pro.	§5.6
=nu(k)u	DEM.PL:PST3	Remote past pl. dem.	§8.2.2
	REL.PL:PST3	Remote past pl. rel. pro.	§5.6
=ˈdíí	ANPH.PL	Plural anaphoric dem.	§8.2.3

The enclitics in (35) cause /i,u/-dominance if the following conditions are met: 1) The preceding noun stem is [-ATR] and 2) ends in a non-low vowel. If these are met, the enclitic harmonizes the final phonetic syllable of the [-ATR] noun. The conditions are not so often met, because the two case suffixes often required on nouns are the nominative {-a⁺} and the accusative {-ka⁺}, both of which obstruct the spread of [+ATR]. The examples in (36) consist of nouns—four of which have plurative suffixes— with case suffixes and one example each of the [+ATR] clitics from (35):

(36) */i,u/-dominant enclitics in context*

j̄ írɔ́k-ɪkɛ-ɛ	[j̄írɔ́k-ɪke-e＝ni]	'of the toy spears which…'
kaín-ík-ɔ	[kaín-ík-o＝nukᵘ]	'in those years'
mɛsɛ-ɛ	[mɛse-e＝níi]	'in that beer which…'
ŋƙáƙé-ɛ	[ŋƙáƙé-e＝ꞌdíí]	'in that food'
séw-ítín-ɔ́	[séw-ítín-ó＝sin]	'with those sticks'

3.2 Tone

Ik must be viewed as a 'tone language' because in Ik "the pitch of a word can change the meaning of the word. Not just its nuances, but its core meaning" (Yip 2002:1). The following lexical minimal or near-minimal pairs show how pitch (and therefore tone) creates meaningful contrasts:

(37) *Ik tonal (near-)minimal pairs*

Nouns		Verbs	
céŋá-	'joke'	ɓúƙ-	'enter'
cēŋá-	'joke'	ɓùƙ-	'lift'
ɛ́sá-	'drunkenness'	dôb-	'catch in hand'
ɛ̄sá-	'termites'	dùb-	'mix with water'
gwāá-	'bird'	hɔ̀n-	'drive'
gwàà-	'crop, stomach'	hɔ́n-	'chase animals'
rɔ̄ɓá-	'animal collar'	ītíŋ-	'force'
ròɓà-	'people'	ìtìŋ-	'cook'
séí-	'quartz'	rúɓ-	'groan'
sèà-	'blood'	rùɓ-	'fall'

As a lexical tone language, Ik falls in the company of all the neighboring Surmic languages like Didinga, Eastern Nilotic languages like Teso-Turkana, Western Nilotic languages like Acholi and Lango, and Southern Nilotic languages like Pokot and Kupsabiny. But Ik differs from nearby 'tonal accent' languages like East Cushitic Dhaasanac that allow only one high tone per word (Tosco 2001:34). And from within the Kuliak group, Carlin "found no evidence of So being a tone language" but rather that "stress-accent is important in So, not on the paradigmatic level, but rather on the syntagmatic level" (1993:16). Tone data on Nyang'ía is not yet available.

Although Ik has a well developed lexical tonology, it does not have 'grammatical tone' in the sense of any morphemes consisting only of tone. This sets it apart from languages like Dhaasanac (Tosco 2001:93) and Turkana (Dimmendaal 1983:259) that mark case, for example, partially or exclusively with H tone/accent. Instead of grammatical tone *per se*, Ik shows 'construction-specific tonology' (Yip 2002:107) whereby various morphemes like pluratives, constructions like noun compounds, and verb paradigms combine segmental morphology with specific tone patterns.

3.2.1 Tones and allotones

Tucker identified three 'significant' level tones, two falling tones, and one rising tone for Ik (1971:342). Years later, Heine reduced the number of contrastive tones to two, noting that Tucker's three levels can be derived from an underlying high and low (1999:18). In fact, both accounts are basically correct, but in different ways. In isolation, Ik words do exhibit two level, two falling, and one rising pitch. Since these pitches are found on words in isolation, they are 'significant' or 'phonemic' in the classic structuralist sense. While in a generativist sense, all this variation can be plausibly boiled down to two underlying tones (Keith Snider, p.c.). To see this, let us first look at pitch contrasts on some nouns and verbs in isolation:

(38)   *Ik pitch contrasts on isolated nouns and verbs*

Pitch	Nouns		Verbs	
Level				
H	ɓór	'corral'	fútᵃ	'S/he blows.'
	ŋókᵃ	'dog'	séɓᵃ	'S/he sweeps.'
M	cēkᵃ	'woman'	lɪ̄ƙᵉ	'Nod!'
	ɟūm	'soil'	tēr	'Divide!'
Falling				
HL	môgᵃ	'uncut forest'	ƙâdᵃ	'S/he shoots.'
	sêdᵃ	'garden'	ŋ̂ɔ̂z	'S/he glares.'
LL	kɛ̀ɗᵃ	'reed'	kɔ̀kᵃ	'S/he closes.'
	tùkᵃ	'feather'	ŋùs	'S/he grabs.'
Rising				
MH	dŏm	'pot'	bɛ̌ɗᵃ	'S/he wants.'
	gǔr	'heart'	dŏn	'S/he distributes.'

At one's first glance over the data in (38), it would appear that Ik has quite a few distinctive tones. But all the pitch contrasts shown there can be analyzed as deriving from two underlying tones: High (H) and Low (L). In other words, the various levels, falls, and rises are predictable based on modifications made to H and L in particular phonological environments. These variants, or 'allotones', are described in detail in (39) below:

(39)   *Allotones of H and L*

Tone	#	Allotone		IPA
H	(1)	High level pitch, in general	$\left[\,^{-}\,\right]$	[v́]
	(2)	High-falling-to-low pitch before a depressor consonant (see §3.2.3), when no H follows again in the same word	$\left[\,\backslash\,\right]$	[v̂]
	(3)	High-falling-to-mid pitch before a depressor consonant when an H follows in the same word	$\left[\,\grave{}\,\right]$	[v᷆]
	(4)	Mid-rising-to-high pitch after a depressor consonant	$\left[\,\acute{}\,\right]$	[v᷄]
L	(1)	Low level pitch after H and with no following H in the same tonal domain, and not at the right edge of the domain	$\left[\,_{-}\,\right]$	[v̀]
	(2)	Low-falling pitch if last TBU of tonal domain, with no floating H after it	$\left[\,\backslash\,\right]$	[v᷅]
	(3)	Mid pitch before any H in the same tonal domain, whether word or phrase; the H may be floating at domain edge	$\left[\,_{-}\,\right]$	[v̄]
	(4)	High-falling-to-low pitch directly after a H with no intervening consonant	$\left[\,\backslash\,\right]$	[v̂]

Using (39) as a key, the pitch variations back in (38) can now be explained in the following manner: In neutral environments, a H tone on a noun or verb will surface as a high level pitch. But if a H directly precedes a depressor consonant (/b, d, dz, g, h, j, z, ʒ/), that consonant will depress the pitch giving the H tone a high-falling to low or mid, depending on whether another H follows in the same word. And if the H directly follows a depressor consonant, the consonant will delay the pitch rise to high, thereby creating a mid-to-high rising pitch on the TBU bearing the H tone.

As for L tone, on nouns and verb in isolation (e.g. the monosyllabic forms in 38), the L surfaces as low-falling pitch before a pause. Otherwise, if any H tone—whether linked or floating—follows the L in the same tonal domain, the L surfaces with a mid level pitch (L is realized in similar fashion in Somali; Hyman 2007:485). The extent of the relevant tonal domain is syntactically and pragmatically defined: It can consist of a single morpheme/word, a phrase, or a whole clause. The Ik prosodic template 'scans' ahead for any H that signals the speaker to raise all intervening L tones to mid pitch. In this way, mid pitch acts as the baseline of Ik prosody—pitch deviates up and down off the baseline mid.

What is not clear from (38) is that those nouns with a mid pitch have a lexical LH tonal pattern. In other words, the nouns surface with mid pitch because there is a floating H after them. And for the verbs with mid pitch, the imperative singular suffix {-ɛ́} has an associated floating H that raises the preceding L to mid pitch at the surface level (see §7.6.6 on imperatives).

In summary, as Heine claimed, all pitch variations in Ik can be derived from only two underlying tones: H and L. This provides a simple and elegant analysis of the tonal phenomena. The main drawback to this analysis, however, is its abstractness. There is considerable conceptual distance between the two underlying tones and their allotonic realizations. Nevertheless, in the example sentences and texts outside the present chapter on tone, only H tone will be marked with an acute accent (v́), while L tone will be left unmarked (except to indicate the L boundary tone of the interrogative intonational tune; see §3.3.5).

3.2.2 Lexical tone

Unlike pitch or tonal accent languages, Ik exhibits a wide range of lexical tone patterns or 'melodies'. These melodies may or may not include a H tone, but there are no known restrictions on the number of H tones that may occur in a single word (tonal processes nothwithstanding; see §3.2.4 below).

Since much of the Ik lexicon can be traced to Teso-Turkana, no doubt the tonologies of those languages have left an indelible mark on Ik. What follows here below is a basic inventory of tonal melodies on noun roots. This is given to show the full range of tonal possibilties. The tonal melodies of verbs, slightly more restricted, are presented in Chapter 7 on Verbs.

The lexical tone melodies given here are at the underlying level discussed in the previous section: H(igh) and L(ow). H is marked with an acute accent (v́), and L is left unmarked. For details of surface realization (and pronunciation), please refer to the guide to allotones in (39) above.

On bisyllabic noun roots, all four possible melodic combinations are attested—H(H), HL, L(L), LH. Note the effect of depressor consonants in creating HL and the fact that with LH, the L will surface as mid pitch:

(40)   *Tone melodes on disyllabic noun roots*

H(H)		HL	
bɔ́lɛ́-	'shin'	dɔ́ba-	'mud'
ɓóré-	'corral'	fádo-	'scale'
dómá-	'pot'	nébu-	'body'
fɔ́ɗɛ́-	'loincloth'	rágo-	'ox'
gúró-	'heart'	rɛ́bɛ-	'millet'
ɟáká-	'elders'	séda-	'garden'
ƙwárá-	'scar'	síbo-	'yeast'
ŋúnó-	'rope'	tóda-	'speech'
sátá-	'rock pool'	ts'úde-	'smoke'
tsítsá-	'honey-guide'	wídzo-	'evening'
L(L)		**LH**	
baro-	'herd'	bɛfá-	'puff adder'
ɓiɓa-	'egg'	ɓɪsá-	'spear'
dzoni-	'well'	cekí-	'woman'
ɗɛka-	'butter-churn'	deké-	'hind-apron'

gwaɟɪ-	'belly'	
kafʊ-	'thorn'	
lɛɓa-	'liquid honey'	
ɲera-	'girls'	
riko-	'long pole'	
tuka-	'feather'	

ɗamú-	'brain'	
gwaní-	'Lesser galago'	
ɟʊmú-	'soil'	
kurí-	'shade'	
rʊkʊ́-	'hump (of animal)'	
zɪnɔ́-	'zebra'	

On trisyllabic noun roots, all eight possible melodies are attested:

(41) *Tone melodies on trisyllabic noun roots*

HHH	dúlélí-	'Dulel River'
HHL	kásíta-	'Hook-thorn acacia'
HLH	mókoló-	'*Ozoroa insignis* tree'
HLL	múmuta-	'*Selaginella phillipsiana* moss'
LLL	poposa-	'Agama lizard'
LLH	tsɪrɪmʊ́-	'metal'
LHL	tiléɲi-	'eye pupil'
LHH	ɟolílé-	'Black kite (bird sp.)'

On nouns with four syllables, all sixteen possible tone melodies are attested. Even though these nouns are monomorphemic in today's Ik, they most likely consisted of more than one morpheme in older Ik, or at least in the languages from which they were borrowed. For instance, many nouns with four or more syllables have the Teso-Turkana prefix {ɲV-}—still a gender marker in Toposa and Northern Turkana—which has no function in Ik.

(42) *Tone melodies on quadrisyllabic (4) noun roots*

HHHH	lóɗíkóró-	'scorpion'
HHHL	ɲícwéɲée-	'Sugar-bush tree'
HHLH	ɲéɓéɓutí-	'waterbuck'
HHLL	pélédɛkɛ-	'tobacco variety'
HLHH	ts'úbʊlátí-	'lip-plug'
HLHL	fírits'ári-	'bird sp.'

HLLH	ŋíɓalɛlɛ́-	'mushroom sp.'
HLLL	lósuaɲa-	'stone anvil'
LHHH	gomóíá-	'*Maerua pseudopetalosa* tree'
LHHL	kɪlɔ́ríta-	'Egyptian thorn tree'
LHLH	lopérení-	'ghost'
LHLL	rutúduma-	'pigeon'
LLHH	basawúré-	'eland'
LLHL	gaɗukúɲu-	'Gad'ukuny clan'
LLLH	mozokoɗí-	'*Ormocarpum trichocarpum* tree'
LLLL	tɔrɔmɪɲa-	'porcupine'

On nouns with five syllables, only twenty-five of the possible thirty-two melodies are attested. The missing melodies may be from a statistical gap or a limitation on tonal melodies in the source languages. In (43), note the high concentration of words borrowed from Teso-Turkana as evidenced by the gender prefix {ɲV-} and the locative gender prefixes {na-} and {lo-}:

(43)   *Tone melodies on pentasyllabic (5) noun roots*

HHHHH	lókílóróŋó-	'queen bee'
HHHHL	ɲékɔ́kɔ́téɛ-	'aggregate stone'
HHHLH	ɲɔ́sɔ́ɔƙatá-	'animal hole-trap'
HHHLL	ɲókólíƙeti-	'tooth-paste (Colgate)'
HHLHH	lótórobétí-	'plant species'
HHLHL	ɲééƙɪéƙɪ-	'rattle (musical instrument)'
HHLLH	ɲékúraraá-	'skin disease'
HLHHL	ɲákalááta-	'metal basin'
HLHLH	ɲásaŋáɲoó-	'ground-bee species'
HLHLL	ɲóvakáɗoo-	'avocado'
HLLHH	kílootóró-	'bird species'
HLLHL	kíryooróo-	'White-crested helmet shrike'
HLLLL	tíbolokoɲi-	'finger/toe-nail'
LHHHL	lokítóɲíi-	'hard black stone'
LHHLH	napéélemú-	'bird species'

LHHLL	loɓúrútutu-	'bird species'
LHLHL	natsíɓɪlíɪ-	'female bushbuck'
LHLLL	kaɲíkaalɪ-	'Kanyikaal River'
LLHHL	lolatíɓóni-	'stone granary cover'
LLHLH	logeréɲoó-	'weevil'
LLHLL	loiɓóroku-	'grass species'
LLLHH	tikorotótó-	'aloe vera'
LLLHL	tsorokoníi-	'insect species'
LLLLH	oŋoroɓoɓó-	'cartilage'
LLLLL	lotabuseni-	'whirlwind'

Lastly, in nouns with six syllables, only twenty-nine of sixty-four possible tone melodies are attested. Nouns of this length are comparatively rare, and some of the melodies only have one representative that has been found.

(44)   *Tone melodies on sextisyllabic (6) noun roots*

HHHHLL	ɲásáɓúpáriʃi-	'sub-parish'
HHHLLH	ɲákááɗoŋotí-	'cowbell'
HHHLLL	ɲéɗísíturiki-	'district'
HHLHLH	ɲákátɪríɓaá-	'wild fruit tree species'
HHLLHL	bílíkɛrɛtɛ́ɛ-	'spurfowl'
HHLLLH	ɲákálɪrɪkɪtí-	'metal-tipped stick'
HLHHLL	ɲépiskóópii-	'bishop'
HLHLLL	ɲéɗifíʒioni-	'military division'
HLLHHH	ɲákaɓɔɓwáátá-	'finger-ring'
HLLHHL	ɲétɔɔkíɗɛ́ɛ-	'sunflower'
HLLHLH	ɲálukutújuú-	'caracal'
HLLHLL	ɲémusaláɓaa-	'cross'
HLLLHH	ɲóƙoloƙolétí-	'wild fruit tree species'
HLLLHL	ɲóƙɔɗɔɔŋɔ́rɪ-	'bird species'
HLLLLL	ɲóɗomoŋolee-	'maize variety'
LHHHLH	loríónómorí-	'tobacco variety'
LHHHLL	ɲeúríánete-	'animal resting place'

LHHLHL	naɓálámorúu-	'mouse species'
LHHLLH	naúyóŋoleé-	'animal species'
LLHHHL	kaatíríámʊ-	'Kaatiriam Mountain'
LLHHLH	natɔkɔ́ɔ́ŋɔrí-	'Natokoong'or River'
LLHHLL	ɲɛtʊréélaa-	'trailer'
LLHLLL	penitésiyaa-	'penance (Catholic doctrine)'
LLLHHH	boʃoƙoréétí-	'*Cussonia arborea* tree'
LLLHHL	doɗikokóróo-	'yellow-necked lizard species'
LLLHLH	lɔmaaníkɔɔ́-	'Lomaaniko River'
LLLLHL	ɲesoƙolokée-	'shorts'
LLLLLH	ɲewuruŋorokó-	'zorilla'
LLLLLL	nalemudzoɗaa-	'bird species'

3.2.3 Depressor consonants

Besides the underlying H-L tone contrast, another key facet of Ik tone is 'depressor' consonants. These consonants are those that behave as if they had L tone. In Africa, they usually comprise voiced obstruents (Yip 2002:157). This is true of Ik, where voiced obstruents /b, d, dz, g, j, z, ʒ/ and the glottal fricative /h/ make up a depressor consonant class. These consonants (hereafter 'depressors') depress pitch, causing ripples and cascades between otherwise relatively level pitch peaks on tone-bearing segments. Their effects are widespread, in some cases the pitch perturbations being so great that the tone system has phonologized them.

Phonetic effects of Ik depressors include 1) super-allotonic rises and falls on L tones and 2) allotonic rises and falls on H tones. The great pitch difference between that of a H tone and that of depressor has over time also led to *phonological* effects: 1) special lexical tone melodies, 2) downstep, and 3) high-tone repellence. These effects are all described in this section.

When a depressor is followed by a L tone, it simply creates a mini-rise as the pitch strives toward the syllable peak. And if a L tone is followed by a

depressor, the pitch takes a mini-dive after the syllabic peak. Depressor effects like these are minute, almost imperceptible except with speech analysis software. This is most likely because depressors themselves are associated with low pitch. However, a native speaker trained to whistle tone will produce very slight contour pitches even in these L tone enviroments. Nonetheless, the effects are so slight they are not even counted as allotonic.

In the following examples, contours are relative to the underlying tone. That is to say, [v̂] is meant to represent a 'lower-low-lower' pitch contour, and [v̌] is meant to represent a 'low-mid-low' pitch contour. The notation here is necessarily a bit exaggerated in order to represent the ripples in pitch:

(45) *Depressor effects on L tones*

LL	baba	[bâbâ]	'armpit'
	bubu	[bûbû]	'abdomen'
LL(H)	ŋabit[a]	[ŋàbǐta̢]	'beads'
	gubes	[gǔbě s]	'thigh'

But, when a depressor is adjacent to a H-tone bearing segment, the effects are much more dramatic. This is because more of the pitch range is utilized going from a depressor to a high pitch and vice versa. As shown in (39), a H tone following a depressor is realized as a mid-to-high rising contour. This contour is considered allotonic due to its greater perceptibility:

(46) *Depressor effects on following H tones*

H	bóʃ	[bőʃ]	'nightjar'
	dóm	[dőm̥]	'pot'
	gúr	[gűr̥]	'heart'
	zít[a]	[zíta̢]	'basket'

The most dramatic effects, though, happen when a depressor comes between a H and a L tone. Because the pitch produced with a depressor is low or

extra low, a great fall in pitch occurs going from the peak of a H-tone syllable through the depressor and on to the following L tone vowel, as in:

(47) *Depressor effects on preceding H tones*

H	ɗɛ́gᵃ	[ɗɛ̂g̊a̦]	'Tamarind seeds'
	kázwᵃ	[kâʒw̥a̦]	'torch, tassle'
	nébᵃ	[nêb̥a̦]	'body'
	ts'údᵃ	[ts'ûd̥a̦]	'smoke'

This kind of effect—a falling contour from high to low or extra-low through a depressor—is one of those that have been phonologized in the system. Consider the fact that in the Ik lexicon, there is not a single instance of two syllables with H tone separated by a depressor. This means that at an underlying level, a H followed by a depressor must then be followed by a L tone. For example, the nouns in (48) all have a HL underlying tone melody:

(48) *Nouns with a HL melody*

HL	ɗɛ́ga-	**ɗɛ́gá-	'Tamarind seeds'
	kázo-	**kázó-	'torch, tassle'
	nébu-	**nébú-	'body'
	ts'úde-	**ts'údé-	'smoke'

Except for the marginal children's words like *ɓáa-* 'food' and *kóo-* 'water', only bisyllabic noun roots with depressors show a HL melody. This suggests that the HL melody itself was created by depressors. This may not be tonogenesis *per se*, but it is the genesis of certain tone combinations. The HL melody is also found only with depressors on verbs roots of particular syllabic structures, for example VCVC-. Compare the following roots:

(49) *Tone melodies on VCVC- noun roots*

HL	íban-	'go in the evening'
	íbot-	'jump'
	ígom-	'bark (v)'

		ízitɗ-	'speak little'
LH		iɓúr-	'replant'
		iɟók-	'lend'
		ikúts-	'ostracize'
		isír-	'decorate'
LL		iɗok-	'multiply'
		ilaŋ-	'evade'
		imets-	'take over'
		itiŋ-	'cook'

Although the verbs in (49) are only a sample, they illustrate that the HL melody on VCVC- verbal roots is found only with depressor consonants. Other lexical melodies found only with depressors include the following:

(50)   *Depressor-only lexical tone melodies*

HLL (verbs)	ígulaɟ-	'to bubble up'
	tíbɪɗɪl-	'to summersault'
HLLLL (nouns)	tíbolokoɲi-	'finger/toe-nail'
	tígaramatsɪ-	'elder child'

To summarize, the pitch depression caused by depressor consonants between a H tone and a L tone has been phonologized in the form of certain *lexical* tone melodies. It has also been phonologized as downstep:

At a *post-lexical* level, depressors may occur between two H tones, but when they do, the second H is downstepped. The conditions for this arise from at least two sources: 1) high-tone anticipation (see §3.2.4) and 2) the presence of the anaphoric demonstratives (see §8.2.3). High-tone anticipation is when a tone-bearing unit (TBU) with L tone gets a H tone before a second TBU with H tone, so long as no consonant intervenes, as in:

(51) *Downstep with high-tone anticipaton*

| kédié da | → | ké⁺díé da | [kê⁺ɗîê dà] | 'in a nice way' |
| ts'ɛ́dɛɔ́ | → | ts'ɛ́⁺dɔɔ́ | [ts'ɛ̂⁺dɔɔ́] | 'from there' |

In these two examples, the depressor /d/ falls between two H tones. In addition to causing a fall on the preceding vowel, the depressor lowers the pitch so much that the following H tone is downstepped (⁺). Similar effects arise in the presence of the anaphoric demonstratives, as in the following:

(52) *Downstep with anaphoric demonstratives*

| awéé=déé | → | awéé=⁺déé | [āwéê d⁺éé] | 'at that home' |
| ɲɔtóó=díí | → | ɲɔtóó=⁺díí | [ɲɔ̄tóô d⁺íí] | 'from those men' |

Again, in these two examples, a depressor is found between two H tones, this time at the boundary between two words. The effect is that the fall in pitch caused by the depressor is too great for the second H to recover its full height. And so the depressor instigates downstep of any following H tones. This and other depressor effects reveal an important tonological fact about Ik—its strong intolerance for high pitch (H tone) after a depressor consonant. The phonetic motivation is obvious: The articulatory effort needed to climb out of an extra-low pitch trough to the pitch height prescribed by an underlying H tone is too inconvenient.

Also at the post-lexical level, the need to avoid depressor + H-tone sequences shows up in another way—through high-tone repellence. When word-level tone assignment or phrase-level tone sandhi places a H tone after a depressor, the H tone is automatically repelled to the preceding TBU. This is illustrated below in verb stems and simple clauses. In the first example, the 2PL subject-agreement marker {-ít(í)} contrasts with the 2SG marker {-íd(i)} in that the latter contains the depressor /d/. The word-level assignment of H tones gets thwarted in the 2SG form because of /d/:

(53)   H-HL-HH   H-HH-HL
        fút-úƙo-ítí-kᵉ   fút-úƙó-ídi-kᵉ
        blow-AND-2PL-SIML   blow-AND-2SG-SIML
        ...as you (pl) blow.   ...as you (sg) blow.

In the first place, the verb stem in (53) combines the verb root *fút-* 'blow' with the andative directional suffix {-ʊƙɔ(tí)-}. This combination normally yields the tone melody HHL, as it does with the 2PL form above. Adding then the subject-agreement marker, with its H tones, the full stem melody surfaces as HHLHH. In the 2SG form, however, the HH tone sequence on the subject-agreement suffix is repelled by the presence of /d/, bouncing the HH sequence back on TBU. This results in a stem melody of HHHHL.

High-tone repellence often interacts with high-tone insertion (see §3.2.4). High-tone insertion stipulates that upon a sequence of four L tones across morpheme boundaries, a H tone must be inserted on the third TBU. If no depressor is involved, the H insertion has no obstacle. But if the consonant before the third TBU is a depressor, the inserted H gets repelled back onto the second TBU instead. In this light, compare the following two sentences:

(54)   i-a   kuwa-kᵉ   →   ia kúwakᵉ $\left[\ \overline{}\ \overline{}\ \overline{}\ \diagdown\ \right]$
        be-REAL grass-DAT
        It's in the grass.

(55)   i-a   bosi-kᵉ   →   iá bosikᵉ $\left[\ \overline{}\ \diagdown\ \overline{}\ \diagdown\ \right]$
        be-REAL ear-DAT
        It's in the ear.

Before leaving the topic of consonant-tone interaction, a comment is in order about the ejectives /ƙ/ and /ts'/. While depressor consonants lower pitch significantly, these ejectives raise pitch slightly. It seems that the glottalic release of pressure of an ejective, accompanied by voicing in

following vowels, creates a slight rise in phonetic pitch. In the following examples, the phonetic pitch notation is only approximate:

(56) *Enia kɔɓa ntsi.*

en-í-a⁺   kɔɓ-a   ntsí-∅
see-1SG-REAL navel-NOM he-GEN
I see his navel.

(57) *Ats'oo ntsa sakamaa inoe.*

áts'-ɔ́-ɔ   nts-a   sakámá-a   ínó-ᵉ
eat-3SG-SEQ he-NOM liver-ACC   animal-GEN
And he ate the animal's liver.

3.2.4 Tone processes

The analysis of Ik tone processes presented in this section is preliminary. Ik tone, particularly at the post-lexical and phrasal levels, deserves a book-length treatment of its own. However, this section does present a few insights gained in the course of the grammatical study. Hopefully these insights will act as a springboard for whoever may take up the tonal mantle.

As shown back in §3.2.2, lexical roots in Ik have their own underlying tone melodies. Affixes do too, and these are revealed on an affix by affix basis in the following chapters. But when roots and affixes are put together in word, their tones may change in the local morpho-tonological environment. The present section summarizes some of the known—though surely not all—Ik tone processes, including the ones already mentioned in §3.2.3 that are caused by depressor consonants. Some of these processes have the feeling of being ad hoc, of not reflecting the core characteristics of the Ik tone system. Nonetheless, they represent the knowledge acquired up to this point.

These processes are summarized in the table in (58) below:

(58)   *Ik tone processes (T)*

#	Name	Description
T1	Downdrift	"After an overt (linked) L at a tone-phrase boundary, the pitch register may be lowered for following tones."
T2	Downstep	"After 1) a depressor-induced HL fall or 2) a floating L, the pitch register may be lowered for following tones."
T3	High-tone insertion	"In a sequence of four or more L tones across word boundaries, a H may be inserted on the third TBU."
T4	High-tone repellence	"When tonal phonology assigns a H to a TBU whose onset is a depressor, the H is repelled leftward one TBU."
T5	High-tone anticipation	"When a L precedes a H across a morpheme boundary with no consonant intervening, the L changes to a H resulting in a HH sequence."
T6	High-tone suppression	"In a sequence of two or more Hs across root-suffix(es) boundaries, the Hs may all delink and become floating or disappear entirely."
T7	Melodic template completion	"A root's tone melody determines the surface tone of any suffix."
T8	Replacive grammatical tone	"An affix or paradigm may cause tone changes to a word not explainable in terms of T1-T7."

The last 'process', replacive grammatical tone (T8), is a catch-all category for tonal changes that take place with certain affixes or in certain verbal paradigms. For example, the plurative I suffix {-íkó-} inexplicably gives a preceding L-toned noun root H tone, e.g. *paɗo-* → *páɗ-íkó-* 'small caves'.

Downdrift (T1), or 'automatic downstep', describes the lowering of the pitch register or 'ceiling' after an overt L tone. The result is that a H tone after a L tone will be lower in pitch than preceding H tones. Ik downdrift must be qualified in two ways: 1) In order to cause downdrift, the L tone must surface as a low or low-falling pitch, not a mid pitch. This means that an L surfacing as mid pitch cannot cause downdrift. So it is not any L, but a L near a tone phrasal boundary that causes downdrift. And 2), a L tone does not cause downdrift if no H tones precede it. This is by definition, since 'downdrift' implies lowering of successive Hs:

(59) *Sukuta akatikaa ntsi.*

　　　súk-út-aꜜ　　　akát-ika-aꜜ　　ntsí-∅

　　　itch-CAUS-REAL nostril-PL-ACC he-GEN

　　　He's scratching his nose (pl. in Ik).

In (59), prosody and syntax align to define the relevant tonal phrase as made up of a clause constituent: verb, object NP, genitive NP. Because of this phrasal domain so defined, the realis suffix on the verb surfaces as low pitch, causing downdrift on the following object NP. Then, after the L tones on the subject NP (*akátikaa*) which surface with low pitch before the tone phrase boundary, downdrift lowers the H tone on the genitive NP.

(60) *Ɗoɗetio oja inoe ariikaa eɗa.*

　　　ɗoɗ-ét-i-oꜜ　　　ɔ́j-á　　　ínó-eꜜ　　　arí-íka-aꜜ　　　ɛɗá

　　　show-VEN-3SG-SEQ wound-NOM animal-GEN intestine-PL-ACC only

　　　The animal's wound showed only intestines.

Likewise in (60), after each major clause constituent—verb, subject NP, object NP—the downdrift occurs when the preceding contituent ends with a L tone. The head of the subject NP (*ɔ́já*) does not cause downdrift in the following genitive modifier because *ɔ́já* has no L tone.

When downdrift has been caused by a L tone at a tone phrasal boundary, the first L tone in the next tonal phrase (before any Hs) is at the same basic pitch level as the preceding L tone. But central to this analysis is the claim that the downdrifted L is actually a new mid pitch on a lower pitch register. This goes back to the analysis of underlying tones give in §3.2.1: Any L before a H in the same tone phrase surfaces with mid pitch. To illustrate this, the Downdrift in (59) is given here with a more phonetic notation:

(61)   súkúta⁺ akátikaa⁺ ntsí $\left[\begin{array}{c} \text{– –} \quad \text{⁺ –} \quad \text{⁺} \\ \text{_ _ _ _ _ _ _ _} \end{array} \right]$

Relative to each downdrifted H tone, the L tones(s) before it bear relatively mid pitch. Only that, because the whole pitch register has been lowered, downdrifted mid pitch is more or less the same height as the preceding L tone responsible for the downdrift in the first place. As shown, then, in (61), this is repeated as many times in the clause as downdrift occurs.

Despite these clear examples, downdrift is not such a hard and fast rule as to be completely predictable. There in fact many counter-examples where downdrift does not happen in what would seem to be applicable circumstances. Consider that, in the following example, neither the L at the end of the verb nor the one at the end of the head of the object NP seem to cause downdrift on any following H tones:

(62)   *Irikaini ekwitnia nti.* $\left[\text{– – – – – – – – – – – –} \right]$

  iríká-ini ekw-itíní-a ntí-∅
  rub-SEQ eye-PL-ACC they-GEN
  And they rubbed their eyes.

The example in (62) and many others like it suggest that prosodically defined tone phrases may vary in terms of the syntactic units they align with. In some cases, like in (59) and (60) above, the tone phrase matches the core clausal constituents. In other cases, like in (62), the tone phrase

matches the entire clause, such that tonal prosody 'scans' ahead across syntactic boundaries to find H tones that maintain the mid pitch of all Ls. This observation matches one made earlier, namely that mid pitch acts as a baseline in Ik discourse. All kinds of factors, yet largely unexplored, may affect the linking of the tonal tier to syntactic structure—from pragmatic considerations to discourse structure, semantics, speech rate, emotion, etc.

Downstep (T2), or 'non-automatic downstep', is the lowering of the pitch register after an unlinked or 'floating' L tone. Ik downstep was already mentioned under §3.2.3 in the discussion of depressor consonants. Those voiced obstruents (excluding /h/ for the moment), act as if they bear L tone. How one handles this depends on one's theoretical orientation. It could be seen as a L linked to the depressor or floating in association with it instead. Either way, from a descriptive point of view, depressors cause downstep:

(63)   *Toyaa dea ntsi.* $\left[- \ ^{-} \backslash ^{\downarrow} _{\_ \_ \_} \ ^{-} \right]$

      tɔyá-á   ᵘdɛ-a   ntsí-∅

      bleed-REAL   foot-NOM   he-GEN

      Her foot is bleeding.

(64)   *Iya nda aka na kwats.* $\left[- - \backslash ^{\downarrow} _{\_ \_ \_ \_} \ ^{-} \right]$

      i-a   ńᵘda   aka=na   kwáts-∅

      be-REAL with   mouth[OBL]=REL.SG small-REAL

      It has a small mouth.

In both (63) and (64), the depressor /d/ lowers the pitch register such that any following H tones are roughly the same height as a mid-pitch L tone before the depressor. But downstep is also found in the absence of depressor consonants. Observe the following instances:

(65) *Ats'a ŋoka okak.* $\left[\ ^{-\ -\ -}\ \diagdown^{\ \downarrow}\ _{-}\ ^{-}\ \right]$

áts'-á   ŋók-á⁴   ɔká-kᵃ

chew-REAL dog-NOM   bone-ACC

The dog chews the bone.

(66) *Iya oʝa kwetee ntsi.* $\left[\ ^{-\ -\ ^{-}}\ \diagdown^{\ \downarrow}\ _{-}\ ^{--}\ _{-}\ ^{-}\ \right]$

i-a   ɔ́ʝ-á⁴   kwɛtɛ́-ɛ́   ntsí-∅

be-REAL wound-NOM arm-DAT   he-GEN

There is a wound on his arm.

In both of these examples, there is a lowering of pitch register after an overt H tone. From a phonetic perspective, this could be understood as an instance of the cross-linguistic tendency of a falling contour to utilize the full available pitch range (Yip 2002:49): The transition from H to L goes a little lower than previous Ls, so low that following Hs do not fully recover. But from a phonological perspective, whence the L causing downstep? Possible answers seem to be that a) there is a L boundary tone between the subject NP and further arguments or b) that the tonal melody of nouns like *ŋókí-* 'dog' and *ɔ́ʝá-* is actually HHL rather than simply HH. With no TBU to dock to, the L in HHL floats and causes downstep on the following TBUs.

High-tone insertion (T3) describes the tonal process of breaking up a sequence of four L tones with a H tone on the third TBU, as for example in:

(67) *Xeɓa seao.*

ʃɛɓ-a   sea-ᵒ   → ʃɛɓa séaᵒ $\left[\ ^{-\ -\ ^{-}}\ \diagdown\ \right]$

fear-REAL blood-ABL

He fears blood.

(68) *moo fiyei toimɛnaa...*

mo-o   fiye-i   toimɛna-a   →   fiyei tóimɛnaa $\left[\text{-- } ^- \text{ - --} \right]$

not-SEQ know-3SG   COMPL-ACC

and he did not know that...

In both of these clauses, a L-tone verb is followed by a L-tone argument and so a H tone is inserted on the first TBU of the argument. The L tones in (68) after the inserted H remain mid pitch because it is a continuing sentence. According to some older Ik speakers, high-tone insertion is a more recent tonological development. As such, the examples above are also grammatical without the inserted H tone. It seems likely that floating-H docking on following syllables is being generalized and extended into domains such as these, but this remains to be seen from further investigations.

High-tone repellence (T4) describes the tonal process in which a H tone assigned to a TBU gets repelled leftward one TBU. This only happens when the onset of the syllable designated for the H is a depressor. In this way, the antinomy between high pitch and depressor consonants has been phonologized. High-tone repellence is illustrated below in two contexts: 1) when an inserted H gets repelled and 2) when a floating H gets repelled.

First, if an inserted H is assigned to a TBU directly preceded by a depressor, the inserted H is repelled one TBU leftward. In the example below, conditions for high-tone insertion arise, assigning H tone to the first syllable of *badon* 'dying'. But because the onset of that syllable is /b/, the H tone gets repelled back onto the last syllable of the verb:

(69) *Xeɓa badonu.*

ʃɛɓ-a   bad-onu-∅   ↛   **ʃɛɓa bádonu

fear-REAL   die-INF-ABL   →   ʃɛɓá badonu $\left[^- \searrow \text{ \_ \_ } \searrow \right]$

He fears dying.

Second, a floating H may be repelled by a depressor consonant. The subordinating conjunction *na´* = 'if/when' has a floating H. This is deduced from the fact that when a L-tone verb follows it, the first TBU of the verb gets a H tone. But if the onset of the H-bearing TBU is a depressor like /g/, then H gets repelled back to the conjunction. Compare these examples:

(70)　　na = ŋ́k-ese...　　　　na = kɔ́k-ɛsɛ　　　　ná = gon-ese

　　　　CONJ = eat-SPS　　　　CONJ = close-SPS　　　　CONJ = look-SPS

　　　　If____is eaten...　　　　If____is tied...　　　　If____is looked at...

High-tone anticipation (T5) is a tonal process in which a L-linked TBU directly before a H tone across a morpheme boundary also gets H tone, but only if no consonant intervenes. This is an example of 'bonded spread' or 'tone doubling' which is reportedly common in Africa (Yip 2002:69). In Ik, this process is observed both within and between words, as shown below:

(71)　　*...ƙaatie...*

　　　　ƙa-áti-e　　　　→　　　　ƙáátie　　　　　　$\left[\begin{smallmatrix} -- & -- \\ & \end{smallmatrix}\right]$

　　　　go-3PL-SIML

　　　　...as they go...

(72)　　*ɗiimee*

　　　　ɗi-íme-e　　　　→　　　　ɗí-íme-e　　　　　　$\left[\begin{smallmatrix} -- & -- \\ & \end{smallmatrix}\right]$

　　　　one.SG-DIM.SG-DAT

　　　　to this little one

(73)　　*Na atsie,...*

　　　　na´ = ats-i-e　　　→　　　na átsie　　　→　　　ná átsie　　$\left[\begin{smallmatrix} -- & -- \\ & \end{smallmatrix}\right]$

　　　　CONJ = come-3SG-SIML

　　　　When s/he came,...

High-tone suppression (T6) describes a tonal process in which the distance between tones or pitches is reduced. In Ik, this is already evident from the lexical and phrasal tone suppression that raises L tone to a mid pitch before a H tone. But a kind of 'double tone suppression' is also evident in Ik (Hyman 2007:503). After raising L tones to mid pitch before H, the H tone is then delinked. If another H follows the delinked H in the same tonal span, then nothing further happens. But if no other H follows the delinked H, it becomes a floating H at the end of the span (word, phrase, etc.). Double H-tone suppression is most evident in a variety of verb forms.

The sequential (§7.8.1) and optative (§7.7.4) verb paradigms, both partly irregular, exemplify high-tone suppression. This comes out particulary well in the 2PL forms: The 2PL subject-marker {-ítí} gets suppressed to {-iti´}, with its H tones delinked and sent floating at the right-edge boundary, as in:

(74) *Na ŋusitio,...*

na´=ŋus-ítí-o   →   na ŋúsitio´ $\left[\; - \; ^- \; - \; -- \; \right]$

CONJ=grab-2PL-SEQ

If you (pl.) grab (sth.),...

(75) *Alake ŋusiti...*

aláké   ŋus-ítí   →   aláké ŋusiti´ $\left[\; - \; ^- \; ^- \; - \; - \; - \; \right]$

then   grab-2PL[OPT]

Then you grabbed...

The chief difficulty with this analysis is that the floating H need not ever relink to any TBU. That is, even if one of these verbs is followed by an object with L tone, the putative floating H does not reappear. Perhaps it is sent to the right edge of the entire tonal phrase, however large it may be. Or perhaps the suppressed and delinked H disappears altogether. If the latter is true, this could mark the emergence of a third underlying tone, namely Mid, since the conditioning environment (floating H) may be being lost.

Another instance of high-tone suppression is found in the infinitive form of verbs with a LH lexical tone melody. In the isolation form of the infinitive (nominative case), transitive verbs with the melody LH, combined with the transitive infinitive suffix {-ɛ́sí-}, surface with a M-M-M pitch. That is, the melody of the root (LH) combined with that of a suffix (HH) yield the melody LLL(H) instead of LHH(H) because of high-tone suppression:

(76)   *High-tone suppression in transitive infinitives*

aŋír-ɛ́sí-	→	aŋireś	[– – –]	'to turn'
ɪtsán-ɛ́sí-	→	ɪtsanɛś	[– – –]	'to disturb'
tʊlʊ́ŋ-ɛ́sí	→	tʊlʊŋɛś	[– – –]	'to abhor'

Melodic template completion (T7) refers to a tonal process in which a lexical tone melody that is greater than then number of TBUs offered by a certain lexeme gets completed or fully linked over a polymorphemic stem. For example, shorter tone melodies like HH, LL, and LH, shown above in (40), can arguably be analyzed as truncated versions of HHL, LLL, and LHH found on trisyllabic nouns. This analysis explored in detail in Schrock 2012a.

The idea behind melodic template completion, then, is that the longer, three-tone melodies determine the tone pattern of a bisyllabic noun root combined with a monosyllabic case suffix. In other words, the case suffixes—all having L tone underlyingly—will take a H or L tone according to a three-place tone melody. Consider the following examples:

(77)   *Melodic template completion*

HH	ámá-	'person'	→	HHL	ámé-e	'of a person'
HL	édi-	'name'	→	HLL	édi-e	'of a name'
LL	roɓa-	'people'	→	LLL	roɓe-e	'of people'
LH	imá-	'child'	→	LHH	imé-é	'of a child'

In (77), the genitive suffix {-ɛ} surfaces with a H or L tone depending on the lexical tone melody of the noun to which it attaches. This type of tone process cannot simply be a case of H-tone or L-tone spreading because the tone of the case suffix need not be the same as the preceding root syllable. In principle, all the lexical melodies presented above in §3.2.2 could be extended by one tone to get the full underlying melody that is only realized on a case-inflected form. Then the melodies for trisyllabic nouns would provide the case-tone templates for the bisyllabic nouns; the quadrisyllabic nouns would provide the template for the trisyllabic nouns, etc.

Although case inflection is used here to exemplify melodic template completion, the process is observed in other areas of the grammar including compound nouns and verb infinitive formation. The factors governing the diachronic formation of these melodic templates are not yet discovered. Most likely, clues will be found in further historical comparative work in East African languages. It has been suggested that a metrical approach to Ik tone assignment may be a fruitful line of research (Mary Pearce, p.c.). There does seem to be some interaction between, for example, syllable weight and tone assignment, but any applicable rules have yet to be discovered.

Pitch-accent, 'musical stress', and 'rule-governed prominence' seem to be an areal feature of East Africa. For example, in Turkana, "tonal inflection is obligatory regardless of the underlying tone pattern of the noun stem (Dimmendaal 1983:52). Evidence suggests that in wider Nilotic—languages that have had a deep impact in Ik—'quantitative' metrical units based on syllable weight or mora-counting interact with tone assignment (Dimmendaal 2012). Despite recent strides in understanding Ik tonology, one still gets the impression that the key to the system lies just out of reach.

3.3.5 Intonation

In addition to lexical and phrasal tone, Ik also uses sentence-level tone or 'intonation' to express meaning. Intonation is understood here as the "the use of *suprasegmental* features to convey 'postlexical' or *sentence-level* pragmatic meanings in a *linguistically structured* way" (Ladd 1996:6, italics in the original). The suprasegmental feature Ik uses to alter pragmatic meaning is a boundary tone at the right edge of the relevant syntactic unit. Three intonational boundary tones (or lack thereof) create the following three 'tunes' (the symbol <%> being borrowed from Ladd 1996:80):

(78)   *Ik intonational tunes*

#	Name	Defining boundary tone
1	Indicative Tune	...............................Ø%
2	Interrogative Tune	...............................L%
3	Solicitive Tune	...............................LH%

The *indicative tune* is the default, unmarked intonational pattern used for declarative statements. This tune is defined by an absence of change on the tone of a clause's final word. A morpho-syntactic correlate of this tune is that the final morpheme of the sentence will be in its final form. Take for example the two basic statements below, each with their pitch profiles:

(79)   *J'eja naa awak.*

ȷɛ̰j-a＝náa˺   awá-kᵉ

stay-REAL＝PST1   home-DAT

S/he stayed at home.

[je	ɟa	náa	a	wá	kᵉ]
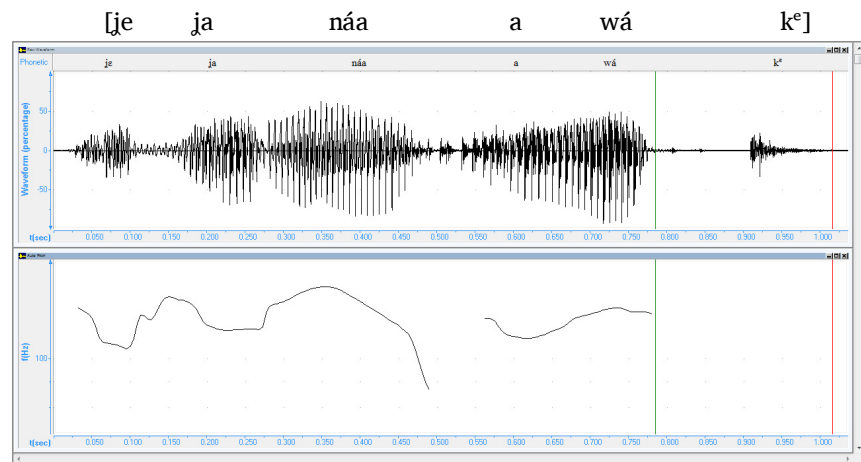
In this example, the focus is on the final word, *awákᵉ* 'at home'. With the indicative tune, this word, declined in the dative case, takes the normal pitch that its tone melody calls for: mid followed by high.

The following sentence gives another example of the indicative tune:

(80) *Kaata naa muɲ.*
       ƙa-át-a=naa   muɲ
       go-3PL-REAL =PST1   all
       They all went.

[ƙaá   ta   naa   muɲ]
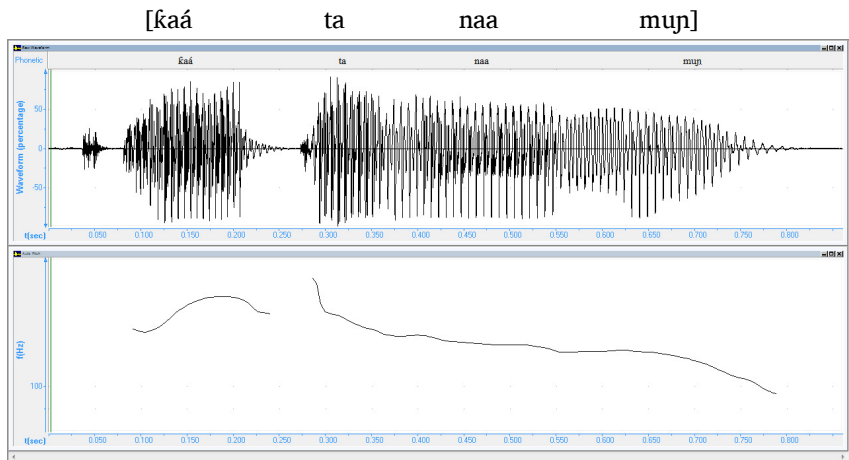
In (80), apart from the third person plural subject suffix {-át(i)-}, all the morphemes in this sentence have low tones. So here the indicative tune surfaces as a gradual declination of low tones ending on *muɲ* 'all'.

The *interrogative tune* is the intonational pattern used for yes/no questions. This tune is defined by a low boundary tone that replaces any high tone on the final syllable. As a morpho-syntactic correlate of this tune, the final morpheme of the sentence must occur in its non-final form. This morphological open-endedness can be viewed as iconic of the fact that a question is pragmatically open-ended, expecting a response.

(81)   *J'eɟa naa awee?*

    ɟɛɟ-a = náa˩   awé-e   (**awé-é)

    stay-REAL = PST1   home-DAT

    Did s/he stay at home?

[jɛ   ʝa   náa   a   wée]
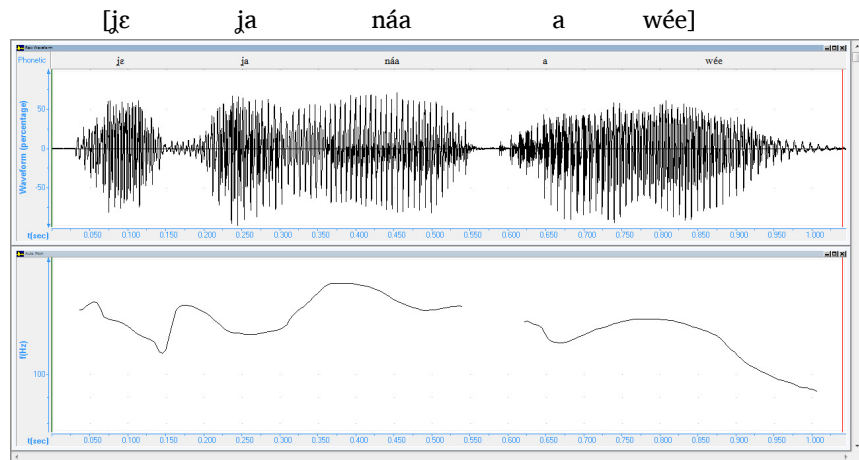
The final form of 'at home' is *awákᵉ*, as seen above in (81), while the usual non-final form is *awéé*. However, in questions with the interrogative tune, the low boundary tone replaces the high tone on the dative case suffix {-ɛ}.

On words like *mʉɲ* 'all' that already have a low tone, the interrogative tune's low boundary tone leads to an extra-low decline at the end:

(82)   *Kaata naa mʉɲu?*
       ɓa-át-a = naa   mʉɲu
       go-3PL-REAL = PST1   all
       Did they all go?

[ƙaá   ta   naa   muɲu]
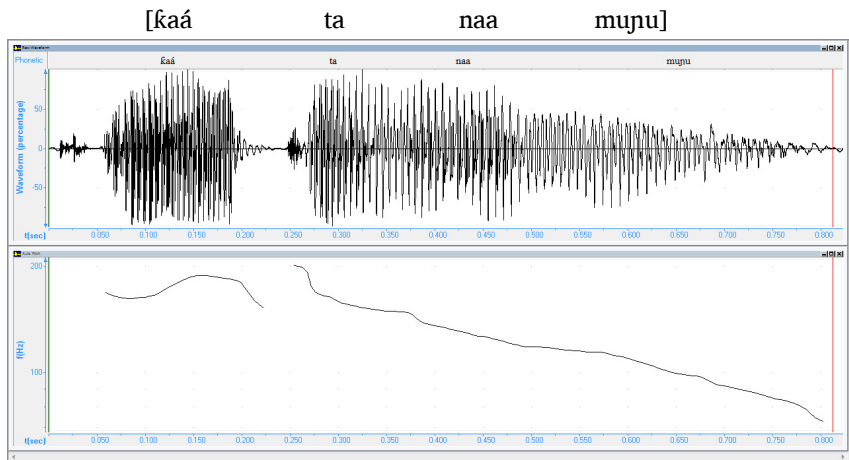
The third intonational pattern, called the *solicitive tune*, is used to solicit agreement from the hearer. It is often heard in the following contexts: 1) making polite requests or gentle commands, 2) making statements subject to the hearer's approval, and 3) ensuring the hearer's attention. The solicitive tune can apply to both main clauses and subordinate clauses (even ones preceding the main clauses of declarative statements or questions.)

The solicitive tune is marked by a low-rising (LH) boundary tone. Unlike the indicative and interrogative tunes, the final morpheme of a clause can appear in either its non-final or final form. When the final form occurs, vowels normally devoiced surface as voiced so as to link to the low-rising tone to a tone-bearing unit. But because a) the LH boundary tone applies only to the clauses's final vowel and b) contour tones in Ik must link to two phonological TBUs, the final vowel is doubled for the solicitive tune:

(83)   *J'eɟa naa aweee?*
        ɟɛɟ-a = náá   awé-eé   (awá-keé)
        stay-REAL = PST1   home-DAT
        S/he stayed at home, (okay)?

[jɛ   ja   náá   a   wé   eé]
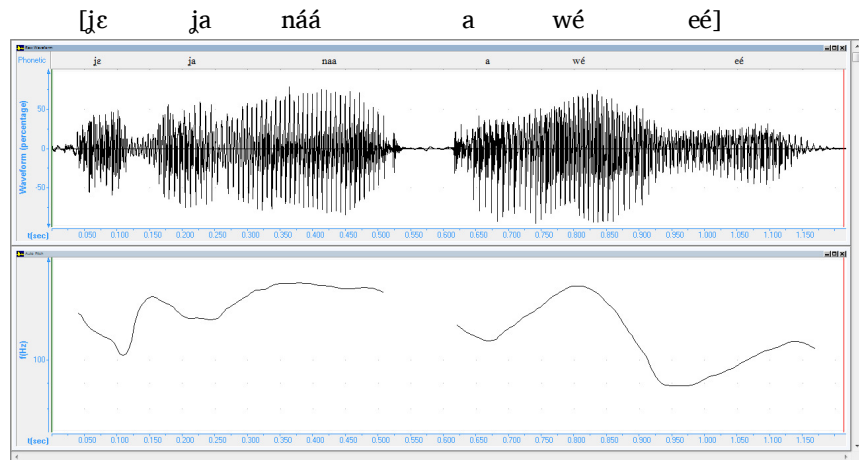
Just as (83) shows the solicitive tune operating on a high-toned morpheme, (84) shows the same tune applying to the low-toned *muɲu* 'all':

(84)   *Kaata na muɲuu?*

ɓa-át-a = naa   muɲuú

go-3PL-REAL = PST1   all

They all went, (okay)?

[ɓaá   ta   naa   muɲuú]
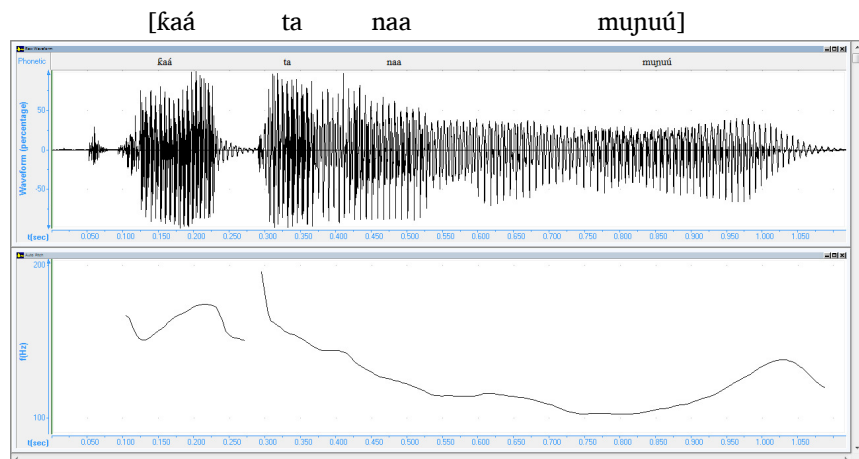
4 Nouns

As one of language's 'evolutionary primitives' (Heine & Kuteva 2007:59), nouns comprise one of Ik's two large open word classes (the other being verbs). The present chapter begins with an overview of noun roots (§4.1) moving on then to nominal suffixes (§4.2), compounds (§4.3), and several types of onomastics (§4.4.-§4.5). Case marking, a crucial feature of the nominal system, is treated in Chapter 6 on the way to the wider grammar.

In Ik, a noun is any word whose primary function is to be the head of a noun phrase, which in turn functions as an argument of a verb. As the head of a noun phrase, a noun must be inflected for case to show its relation to other words. It may also take other nominal suffixes and may be joined to another noun or pronoun in a compound construction. A second function of an Ik noun is to be the head of the predicate. To fulfil this function, a noun must take the copulative case marker (§6.3.8), which is the functional equivalent of a copula and allows the noun to stand alone as a sentence.

Semantically, the prototypical Ik noun refers to inanimate and animate objects, people, and places—anything in the world that is viewed as an inherent non-event. However, the boundary between things named by nouns and events named by verbs is fuzzy. Many lexical event concepts can become nouns with noun morphology or verbs with verb morphology, e.g.:

(1)   *Lexemes ambiguously nominal or verbal*

botá-	'migrate'	ƙɔɗɛ́-	'cry'
cooka-	'shepherd'	ɔfa-	'cough'
deƙu-	'quarrel'	ságo-	'snare'
ɗɔaní-	'weed'	sʋpa-	'breathe'
epú-	'sleep'	taatsa-	'pay'
féí-	'bathe'	taɟala-	'give up'

fekí-	'laugh'	tɔkɔba-	'farm'
ɪ̯ana-	'talk'	tɔkɔra-	'distribute'
ɪ́kɪra-	'write'	tɔlɔka-	'trap'
ɪrɛɟa-	'slash grass'	tɛwɛa-	'broadcast seed'
iruɓa-	'chew hard foods'	tóda-	'speak'
isira-	'decorate'	tsuwaa-	'run'
ɪtsɪka-	'order'	wáána-	'pray'
ɪwara-	'plaster'	waté-	'rain'
ƙaƙa-	'hunt'	zɛƙɔ́-	'sit/stay'

Ik nominal morphology is minimal—four being the maximum number of morphemes a single noun can have (outside of compounds). Compare this to Turkana nouns which may have up to eleven morphemes (Dimmendaal 1983:208)! Any Ik noun in a post-lexical grammatical context consists minimally of a lexical root plus a case marker. Besides the case marker, the only other nominal suffixes are number and possession markers. The order in which these occur is ROOT-(NUMBER)-(POSSESSION)-CASE. Unlike Turkana and Dhaasanac, Ik has no grammatical gender marked on nouns. Ik compensates for its minimal noun inflection by joining nouns and pronouns together in a variety of compounds. Thus, meanings expressed by affixes in other languages are expressed by a compound construction in Ik.

In their basic underlying forms, every Ik nominal root and suffix ends in a vowel, without exception. This final vowel is unpredictable since it can be any of the language's nine contrastive vowels. Because of this, these final vowels are treated universally as part of the root in Ik. Similar 'terminal vowels' in the East Cushitic Dhaasanac are only viewed as part of the stem in some cases where they "are by and large meaningless elements…[maybe] ancient desemanticized gender markers" (Tosco 2001:65). And like the Omotic language Dime (Mulugeta 2008), Ik has some nouns whose root-final vowel has two free variants, e.g. *kɔlá~kɔlɛ́-* 'goat' and *zɪná~zɪnɔ́-* 'zebra'. Such cases seem to arise along the lines of chronolects and idiolects.

(2)   *Nominal root-final vowels*

badi-	'giant'			dakú-	'wood'
cekí-	'woman'			nébu-	'body'
kurí-	'shade'			ts'úbu-	'plant sp.'
aɟɪ-	'pestle'			ɗamú-	'brain'
kɔní-	'one'			ɟʊmú-	'soil'
sɪsí-	'mead'	awá-	'home'	kafʊ-	'thorn'
		ɗɔfá-	'shrew'		
ɓóré-	'corral'	tsútsá-	'fly'	baro-	'herd'
ɗiɗe-	'donkey'			ɗéró-	'mouse'
rébe-	'millet'			gúró-	'heart'
gɔnέ-	'stump'			ɸiyɔɔ-	'cattle'
ɲɛƙɛ-	'hunger'			ƙíɔ́-	'strap'
mɛsɛ-	'beer'			sɔkɔ́-	'hoof'

Root-final vowels like those shown above in (2) are deleted in three environments: 1) with the nominative case suffix {-a}, 2) with the instrumental case suffix {-ɔ}, and 3) with any of the number suffixes. The other six case markers preserve the stem-final vowel (see more in §6.2). This recalls the situation in the South Omotic language Dime, where any suffix beginning with a vowel first subtracts the noun-final vowel (Mulugeta 2008:38, 41). It is noteworthy that all but two Ik nominal suffixes that delete noun-final vowels also begin with a vowel. The two exceptions, the ablative {-ɔ} and the genitive {-ɛ}, may have lost their initial consonants.

As noted above, any post-lexical noun must have a case suffix. Six out of the eight Ik cases allow the stem-final vowel to persist. Only the nominative and the instrumental (as well as number suffixes) first subtract it. The practical problem is that the citation or isolation form of a noun in Ik takes the nominative case, thereby losing its final vowel. This means than unless a noun is given in one of the six non-subtractive cases, a non-native speaker

cannot guess the final vowel. For this reason, whenever the final vowel of a noun is relevant to a particular point or purpose (for example in Appendix B—Ik root lexicon), an abstract form of the noun is written with a hyphen.

4.1   Noun roots

The underived root of a noun is that basic part that cannot be analyzed into more than one morpheme based on current knowledge of Ik morphology. Most Ik nominal roots are comprised of two to four syllables. However, many Ik nouns that today have to be analyzed as monomorphemic were likely composed of more than one morpheme historically in the languages from which they were inherited or borrowed. These include the many nouns borrowed from Nilotic languages that still bear gender prefixes and are often polysyllabic. In addition to the older, shorter nouns and the newer, longer nouns, a number of partially and fully reduplicated forms are also attested. Each noun root type is examined below, starting with basic roots and then moving on to reduplicated and historically polymorphemic roots.

4.1.1 Basic roots

Basic noun roots in Ik include those that are shorter in length and those whose morphological composition, if there ever was one, is not currently recoverable. This section catalogues and gives examples of the syllable types and tone patterns found in a collection of roughly 1,900 noun roots.

Basic roots with a VV syllable shape are rare (<1%):

(3)   VV noun roots

LH	eí-	'chyme'
LL	ẹoo-	'leather bag'

Basic roots with a VCV syllable shape are also sparse (1.5%):

(4)   VCV noun roots

HH	ámá-	'person'
	ínó-	'animal'
HL	édi-	'name'
	ído-	'breast'
LH	aƙɔ́-	'inside'
	oní-	'abandoned village'
LL	ajɪ-	'pestle'
	ɔfa-	'cough'

Basic roots with a CVV syllable shape make up roughly 1.5% of Ik nouns:

(5)   CVV noun roots

HH	máó-	'lion'
	séí-	'quartz'
LH	cué-	'water'
	tsoé-	'wild hunting dog'
LL	ɗaʊ-	'knife'
	sea-	'blood'

Basic roots with a CVCV syllable shape are considerably more plentiful (13%), so much so that Tucker was led to claim that "the overwhelming majority of words consist in CVCᵛ roots..." (1971:343):

(6)   CVCV noun roots

HH	búré-	'dust'
	mɔ́ɗɛ́-	'ground-bee'
HL	dɔ́ba-	'mud'
	ts'úde-	'smoke'
LH	fetí-	'sun'
	ŋʊrá-	'cane rat'
LL	ɗiɗe-	'donkey'
	kafʊ-	'thorn'

Basic roots with a VCVV syllable shape are also relatively rare (<1%):

(7)   VCVV noun roots

HHL	íséɛ-	'Ise River'
	íwáa-	'Iwa Place'
HLL	ódou-	'day'
	útɔɔ-	'oil'
LHH	aríɛ́-	'small intestine'
	ɔtáí-	'rainy reason'
LHL	ɔlíɪ-	'grass sp.'
	otí-	'divine mystery'
LLH	ɛkɛú-	'muscle fiber'
LLL	anɛɛ-	'*Vigna frutescens* plant'

Basic roots with a VCVCV syllable shape are slightly more numerous than some of the shorter syllable types (3%):

(8)   VCVCV noun roots

HLH	ɔ́pʊsí-	'Opus Mountain'
HLL	ídeme-	'snake'
	óbiɟo-	'rhinoceros'
LHH	aƙáró-	'palate'
	isérá-	'jackal'
LHL	ewédi-	'bitter wild tuber'
	ɔlírɪ-	'female hyrax'
LLH	aƙatí-	'nose, nostril'
	ɪɗakí-	'*Portulaca quadrifida* plant'
LLL	abɛta-	'Sitatunga antelope'
	oŋori-	'elephant'

Basic roots with a CVCVV syllable shape are just a little more numerous than the VCVCV ones (5%):

(9)   CVCVV noun roots

HHL	híƙɔ́ɔ-	'chameleon'
	rórói-	'waist'
HLH	bíroó-	'bird sp.'
	lópeí-	'small liver lobe'
HLL	kíɗɔɔ-	'Tchagra bird'
	kúraɪ-	'Wait-a-bit acacia'
LHH	ɗʊkáí-	'mead residue'
	timói-	'tail'
LHL	girúu-	'locust'
	ƙʊléɛ-	'elbow'
LLH	mʊtʊú-	'needle'
	tsarió-	'weaver bird'
LLL	demio-	'Wild olive tree'
	serei-	'big calabash bowl'

Basic roots with a CVVCV syllable shape are also relatively rare (1%):

(10)   CVVCV noun roots

HHL	tíírɪ-	'Acacia tree sp.'
	tsʊ́ʊ́ra-	'White-thorn acacia'
HLH	míɔkɔ-	'mamba (snake)'
	síɔtɔ-	'Large-leafed albizia'
LHH	gwaíts'í-	'giraffe'
	kwaárá-	'baboon troup'
LHL	keídzo-	'wild tuber sp.'
	leúzo-	'charcoal'
LLH	caalí-	'hearth-stone'
	seekó-	'broth'
LLL	mɛʊra-	'Superb starling'

As mentioned, there are many roots with a CVCVCV syllable shape (19%):

(11)   CVCVCV noun roots

HHL	cúrúku-	'bull'
	tsówíri-	'Speckled mousebird'
HLH	mókoló-	'hardwood tree sp.'
	tábarí-	'pool, puddle'
HLL	ɓɔ́kɔɲı-	'bank, slope'
	tíkoŋu-	*Lantana trifolia* shrub'
LHH	dzibérí-	'axe'
	mınítá-	'wild cat'
LHL	dʊɗére-	'water beetle'
	terégi-	'work'
LLH	bʊbʊná-	'hot coal'
	tabaní-	'wing'
LLL	cɛmɛrı-	'herb'
	dokira-	'old honeycomb'

Basic roots with a VCVVCV syllable shape are relatively sparse (1%):

(12)   VCVCVV noun roots

HLHL	íleƙóo-	'plant sp.'
	íwɔlɔ́ɔ-	'Iwolo Place'
LHHL	aláláa-	'Augur buzzard'
	isókói-	'*Euphorbia bussei* tree'
LHLL	amózaa-	'rain termite'
	ıɗékɛɛ-	'airplane (<Swahili *ndege*)'
LLLH	iboboí-	'bird sp.'
	ırɔrɔí-	*Maerua triphylla* plant'
LLLL	adabia-	'plant sp.'
	emusia-	'*Euclea schimperi* tree'

Roots with a VCVCVCV syllable shape are also relatively sparse (1.5%):

(13)   VCVCVCV noun roots

HHLH	ókírotí-	'bird sp.'
HLHL	ílegúgu-	'insect sp.'
LHHL	obóléni-	'hip'
	ımánánı-	'Castor-oil plant'
LHLH	arágwaní-	'moon'
LLHH	asʊnání-	'African pencil cedar'
	eruméní-	'spear shaft'
LLLH	aŋarasá-	'gravel'
	oŋerepé	'Rufous beaked snake'
LLLL	adɛnɛsa-	'bird sp.'
	ɪkɔlɔta-	'uncovered gourd'

Basic roots with a CVCVCVCV syllable shape are quite numerous (13%):

(14)   CVCVCVCV noun roots

HHHH	másálúká-	'mashed white-ants'
	mélékúrá-	'wild cowpeas'
HHLL	cúkúɗumu-	'male Mountain reedbuck'
	kílíŋıta-	'bull elephant'
HHLH	sáɲamátí-	'sandstone'
	túkulétí-	'small round gourd'
HLHL	fírits'ári-	'bird sp.'
HLLH	báritsoní-	'small black ant'
LHHL	boŋóréni-	'red-brown clay'
	tsarátánı-	'cleft'
LHLL	rutúduma-	'pigeon'
LLHH	bɔfɔkɔ́rɛ́-	'uncastrated goat'
	malakúrí-	'*Vigna frutescens* plant'
LLHL	gaɗukúɲu-	'Gad'ukuny clan'
	pʊrʊtélɛ-	'Catholic friar'
LLLH	mozokoɗí-	'tree sp.'
LLLL	gomoɟoji-	'*Cyperus distans* plant'

Only one example of noun root with a VCVCVCVV syllable shape has been found: *aɗeŋelio-* '*Allophylus* plant sp.'. Those with a VCVCVCVCV syllable type are slightly more numerous (<1%) and exhibit two tone melodies. The other six known members of this syllable group either involve reduplication or are clear cognates shared with Teso-Turkana:

(15)   VCVCVCVCV noun roots

LHHHH	okílóŋóró-	'queen bee'
LLLHH	irutuméní-	'animal foreleg'

Many of the nouns with a CVCVCVCVCV syllable shape (5%) involve reduplication, but those that do not include the following:

(16)   CVCVCVCVCV noun roots

HLLLL	tíbolokoɲi-	'fingernail'
	tígaramatsɪ-	'elder child'
LLLHH	lelemukání-	'handle-less tool'
	tíkorotótó-	'aloe vera'
LLLLL	kɪmɔɗɔrɔtsa-	'tree sp.'
	talalidomo-	'Black-tipped mongoose'

Finally, basic noun roots with the syllable shape CVCVCVCVCVV include such unanalyzable forms as *bílíkɛrɛtéɛ-* 'Yellow-necked spurfowl' and *tsóɗitsónoó-* 'bird species'. But most nouns with this many syllables or more fall into the the other categories of nouns to which we now turn.

4.1.2 Partially reduplicated roots

A fair number of Ik nouns were formed by partially or fully reduplicating a CV or CVC base. Partial reduplication is not a productive noun-building strategy in today's Ik. This is shown, for one, by the fact that non-reduplicated counterparts no longer exist for the reduplicated forms. As an example, though the Ik word *jorɪjoro-* 'cricket' has a cognate *c'ooro* in the

Cushitic language Ts'amakko, there is no current form like *joro* or *jooro* in Ik. This suggests that at one time, reduplication may have had a variety of meaning-enhancing functions like diminutivization. This section, then, is simply a comment on the historical origin of some synchronic noun roots.

Ik partial reduplication involves copying the first two segments of a basic CVCV root and placing them before the basic root. So the now archaic (*) formula for partially reduplicating noun roots is as follows:

(17) $*C_1V_1C_2V_2$ $\rightarrow$ $*C_1V_1\text{-}C_1V_1C_2V_2$

The words in (18) below exemplify nouns reduplicated in this way:

(18)   *Partially reduplicated noun roots*

*H-HL	ɓóɓósa-	'*Terminalia brownii* perfume'
	fófóta-	'trail'
*H-LL	dódoku-	'malnutrition'
	múmuta-	'moss sp.'
*L-HH	titírí-	'forked pole'
	tsɪtsíná-	'dipstick'
	ƙɛƙérá-	'grasshopper'
*L-LH	gogomó-	'chestbone'

In other instances, petrified affixes (borrowed from other languages) come a) before the reduplicated segments or b) after the reduplicated base. The proposed frozen affixes are shown in parentheses in the following table:

(19)   *Partially reduplicated noun roots with frozen affixes*

*(H)-H-HL	(kí)ɓíɓita-	'brown lizard sp.'
*(H)-L-HH	(sí)lɔlɔ́já-	'Dwarf mongoose'
*L-H(LL)	sosób(osi)-	'Sausage tree (*Kigelia africana*)'
*(L)-L-LH	(kɪ)rarapá-	'layer of slime'
*L-L-(LL)	kukus(eni)-	'underground storage hole'

4.1.3 Fully reduplicated roots

Neither is full reduplication a productive noun-building process in today's language. But historically, a fair number of Ik nouns look to have been formed by fully reduplicating a CV or CVC base. The copied segments are placed to the left of the base, and any resulting consonant cluster is broken up with an epenthetic vowel (EV). The default epenthetic vowel in Ik is /ɪ, i/ (as it is in Turkana; Dimmendaal 1983:30), but occasionally the epenthetic vowel is an exact copy of the vowel in the reduplicated base. The epenthetic vowel /ɪ, i/ is subject to vowel backness and roundness assimilation, meaning that /ʊ/ and /u/ are also common variants of this vowel. Lastly, if a petrified prefix is present, it remains at the beginning of the word, such that the copied segments come between it and the root:

(20) $*(V\text{-})C_1V_1V_2$ $\rightarrow$ $*(V\text{-})C_1V_1\text{-}C_1V_1V_2$

         $*(V\text{-})C_1V_1C_2V_2$ $\rightarrow$ $*(V\text{-})C_1V_1C_2\text{-}ɪ\text{-}C_1V_1C_2V_2$

Some examples of full CV(V) reduplication include these below:

(21)   *Fully deplicated CV(V) noun roots*

*H-LL	ɗóɗoo-	'sheep'
*L-HL	ƙoƙóo-	'big gourd'
*L-LH	cucué-	'moist chill'
*L-LL	babaa-	'armpit'
	didii-	'weather'
	jejei-	'leather mat'

And this next set of nouns exemplifies full CVC(V) reduplication:

(22)   *Fully reduplicated CVC(V) noun roots*

*HL-HL	ƙáraƙára-	'Green wood hoopoe'
	náganága-	'monitor lizard'
*(L)-HL-LH	akóŋɪkɔŋí-	'bird sp.'

*LL-LH	dʊrʊdʊrá-	'black boring insect'
	sarɪsarí-	'bridge of nose'
	tɔƙɔtɔƙɔ́-	'snail'
*LL-LL	ɓoliɓoli-	'goiter'
	gafigafi-	'lung'
*(L)-LL-LL	orikiriki-	'large container'

4.1.4 Affixated roots

Like any language, Ik has borrowed vocabulary from neighboring languages over the centuries. In many cases, the morphology on borrowed words eroded and/or was lost completely. But in other cases, the origin of certain frozen affixes on Ik nouns can still be traced to their sources either in living languages or reconstructed ancestor languages. Among these affixes are Teso-Turkana gender prefixes, a Nilo-Saharan 'definitizer' prefix, a couple of singulative suffixes found areally in Nilo-Saharan and Afroasiatic, a handful of Cushitic singulatives, a couple of Surmic nominal suffixes, and a few other prefixes whose meaning and origin have yet to be discovered.

Many lexical parallels are found between Ik and Eastern Nilotic languages, particularly of the Teso-Turkana sub-group. These parallels account for up to fifty percent of the Ik nouns on record. Some of the parallels are only established through phonological reconstructions, while many others are evident from the now-frozen Teso-Turkana gender prefixes. Teso-Turkana languages have three gender prefixes in the singular and two in the plural:

(23)   *Teso-Turkana gender prefixes*

Singular		Plural	
ɲa-	feminine	ŋa-	feminine
ɲe/ɲɛ-	masculine	ŋi/ŋɪ-	masculine
ɲi/ɲɪ-	neuter	ŋi/ŋɪ-	neuter

In some lects, like the central dialect of Turkana and Karimojong (e.g. the Dodoth dialect), the initial nasal of the singular prefixes is lost except in certain environments (Dimmendaal 1983:222). But in Northern Turkana and Toposa, all these nasals are retained, just as they are when Ik has borrowed from these languages over the generations. Ik absorbed so many nouns with these gender prefixes that it generalized the morphology into a synchronic marker of borrowing: Any noun borrowed into Ik today is given the prefixal syllable /ɲV-/ at the beginning (see ex. 28 below).

The prevalence of these gender prefixes in the Ik lexicon suggests the following historical scenarios: 1) Ik speakers interacted with and borrowed heavily from the more conservative members of the Teso-Turkana cluster (Toposa, Northern Turkana, Nyangatom?). This would rhyme with the oral tradition that Ik descended from Ethiopia by way of northwestern Kenya and southeastern Sudan. Or 2), Ik, like Toposa and Northern Turkana, retain the older Teso-Turkana prefixes that other members of the group have lost or are losing. Which scenario is more accurate depends, in large part, on the relative chronology of migrations for Teso-Turkana and the Kuliak group.

In any event, all the gender prefixes in (23), except the neuter singular, are attested in the Ik nominal lexicon. Despite the fact that many Ik speakers are bilingual in Ik and a Teso-Turkana language, words containing these gender prefixes are analyzed in this grammar as synchronically monomorphemic. This is because Ik grammar does not mark gender on other nouns, so it makes no sense to treat these prefixes as gender markers.

Below are some examples of the Teso-Turkana masculine singular *ɲe-* and feminine singular *ɲa-* on Ik nouns:

(24)   *Ik noun roots with a Teso-Turkana singular gender prefix*

Masculine		Feminine	
ɲébwáli-	'lake'	ɲáɓaarátí-	'wrist-knife'
ɲéɓúruɓurí-	'lowland'	ɲaɓʊraí-	'maize'

ɲɛɗɛkɛɛ́-	'sickness'	ɲákaasóo-	'robe'
ɲetíɲáŋa-	'crocodile'	ɲákápɪrɪtí-	'whistle'
ɲélɛlí-	'corpse'	ɲakaú-	'bow'

And then here are some examples of nouns with the plural gender prefixes:

(25)   *Ik noun roots with a Teso-Turkana plural gender prefix*

Masculine/Neuter		Feminine	
ŋíkísilaá-	'law'	ŋakɪɓʊkú-	'fermented milk'
ŋiléétsi-	'shame'	ŋalépána-	'fresh milk'
ŋímúíi-	'twins'	ŋátɔɔsaá-	'dried meat'
ŋísɪlí-	'silky fibers'	ŋáturí-	'flower'
ŋítsaní-	'troubles'	ŋaʃábu-	'placenta'

When one of these gender prefixes attaches to a noun root whose first vowel is /ɔ/ or /o/, the prefix vowel typically assimilates totally to the back vowel. This kind of assimilation also occurs in Dhaasanac where, for example, *ɲekor* 'mongoose' surfaces as *ɲɔkɔr* (Tosco 2001:29):

(26)   *Vowel assimilation of Teso-Turkana gender prefixes on Ik roots*

ɲɛkɔkɔró-	→	ɲɔkɔkɔró-	'chicken'
ɲékɔ́pɛɛ́-	→	ɲɔ́kɔ́pɛɛ́-	'valley wall'
ɲemórótoto-	→	ɲomórótoto-	'python'
ɲásomáa-	→	ɲósomáa-	'education'
ɲétsoróni-	→	ɲótsoróni-	'latrine'

Beyond the regular gender prefixes described above, Teso-Turkana also has locative forms for its singular gender prefixes. These are *lɔ-* for masculine and neuter and *na-* for feminine. They are common in place names like *Lotim* and *Nacakunet* and personal names likes *Lolem* and *Nakiru*. These locative gender prefixes can be traced back to non-locative gender markers in earlier Eastern Nilotic; today they are still found in Lotuxo and Maa. Since the Teso-Turkana gender prefixes are a more recent innovation for

nominative and accusative cases, it seems that Ik absorbed some vocabulary in earlier times of contact with Eastern Nilotic (Dimmendaal, p.c.).

Though many Ik nouns with these older Eastern Nilotic prefixes are clearly borrowings, some may only coincidentally begin with the same sequence of segments (*lɔ-* or *na-*). Without further etymological knowledge, it is not always possible to tell the origin of such nouns. But here are some examples:

(27) *Ik noun roots with Teso-Turkana locative gender prefixes*

Masculine/neuter		Feminine	
lobúrúji-	'mold'	nadɛkwɛla	'watermelon'
lɔɓaɓalí-	'drying rack'	naɗépɛ-	'flea'
lɔɓókɛjénɪ-	'stunted growth'	nakariɓá-	'husks'
lɔkaʋɗé-	'weevil'	nakɪrɔrí-	'sheath'
lɔŋɪzɛté-	'black fly'	nalíɪlíɪ-	'sorghum variety'
lopérení-	'ghost'	namɛʄɔɔ-	'back of head'
lɔtsɔgɔma-	'plant sp.'	narɛʋ-	'viper sp.'
loúpalí-	'cobra'	natúku-	'group discussion'

Despite the fact that the gender prefixes have no current grammatical meaning or function in Ik, they are markers of encyclopedic knowledge. Up until very recent times, knowledge of new, modern technologies and concepts only came to the Ik filtered through their Teso-Turkana neighbors. The table in (28) below presents a list of words borrowed into Ik from English and Swahili through Teso-Turkana, probably in the last 150 years:

(28) *Nouns borrowed into Ik from English or Swahili through Teso-Turkana*

From English		From Swahili		
ɲáɓáa-	'bar'	ɲaɓááti-	'luck'	(<bahati)
ɲáɓákɛtɛ-	'bucket'	ɲáɓataá-	'duck'	(<bata)
ɲájálaá-	'jail'	ɲákalámʋ-	'pen'	(<kalamu)
ɲálaíni-	'line'	ɲámakásɪ-	'scissors'	(<makasi)

ɲápáíni-	'fine'	ɲápámaá-	'cotton'	(<mpama)
ɲéɓíaá-	'beer'	ɲécái-	'tea'	(<chai)
ɲédɪ́sɪ́turiki-	'district'	ɲéemaá-	'tent'	(<hema)
ɲégitáa-	'guitar'	ɲéguruwée-	'pig'	(<nguruwe)
ɲómotokáa-	'vehicle'	ɲósukaríi-	'sugar'	(<sukari)
ɲɔʤɔ́laá-	'dollar'	ɲɔ́ɓɔ́kaá-	'gravy'	(<mboga)

Besides the Teso-Turkana gender prefixes, the Ik nominal lexicon also exhibits a several singulative suffixes that have widespread areal parallels. The first pair of singulatives to be discussed have the form *-ita-* and *-iti-* (and their [-ATR] allomorphs *-ɪta-* and *-ɪtɪ-*). An obvious parallel to these forms is found in Turkana (Dimmendaal 1983:227, 258), and Ik nouns borrowed from Teso-Turkana retain the singulative in the form of *-iti-*. But there seems to be some free variation between the two forms. For example, the word for 'kind/type' in Ik is *bonita-* in the singular, but in the variative plural it becomes *boniti-icíká-* where **bonita-icíká would be expected (§4.3.7). For the {-ita-} form, distant Afroasiatic connection is suggested by the Lowland Cushitic language Afar's singulative *-ta* (Mahaffy, 36). Whatever their etymology, neither singulative is productive in Ik, and so they are both treated as lexicalized affixes. Based on their respective forms, Ik nouns containing them can be divided into two groups:

(29)   *Ik nouns with the frozen singulative suffixes -ita- and -iti-*

{-ita-}		{-iti-}	
agita-	'metal bead'	ɗiití-	'bird sp.'
giʄita-	'razor'	ɪkɪtí-	'head-pad'
kásíta-	'Hooked-thorn acacia'	ɲaɓáítɪ-	'dawn'
kílíŋɪta-	'bull elephant'	ɲaɓáláŋɪtí-	'soda ash'
kɪlɔ́ríta-	'Egyptian thorn tree'	ɲédĭɪtí-	'tsetse fly'
lorítá-	'plant sp.'	ɲálaaʄáíti-	'long grass sp.'
mɪnítá-	'wild cat'	tsoriti-	'vein'

This singulative is also found on an old, formulaic expression that introduces narratives: *kón-ít-ó ódowi*, analyzed as one-SING-INS day:GEN, or, in translation 'one day' or 'once upon a time'. As the singulative is no longer productive, but presumably once was, this saying must be quite ancient .

A second pair of lexicalized singulatives have the forms *-ata-* and *-ati-* (with its [-ATR] allomorph *-atɪ-*). These reflect the So singulative *-at* which Carlin claims is borrowed from Karimojong (1993:74). Indeed, it is also attested in Turkana as *-át* (Dimmendaal 1983:227). Possible Afroasiatic (Cushitic) parallels include the already mentioned *-ta/-yta* of Afar/Saho and the *-te/-at* of El Molo. Regardless of their provenance, this pair of singulatives is no longer productive in Ik today. Nouns containing them can be divided into two groups based on the form of the singulative:

(30)   *Ik nouns with the frozen singulative suffixes* -ata- *and* -ati-

{-ata-}		{-ati-}	
akatátí-	'gourd lid'	aƙatí-	'nostril'
kapʊratá-	'vine sp.'	ɓotsátí-	'chisel, awl'
ƙwaatá-	'frog'	gwalátí-	'lip plug'
lɔkatata-	'African wild date'	kukátí-	'young primates'
nalɔŋɪzatá-	'desert wilderness'	ɲɛlɪrátí-	'sword'
ɲɔ́sɔ́ɔ́ƙatá-	'hole trap'	sáɲamátí-	'sand stone'
taƙata-	'group prayer'	ts'úbʊlátí-	'stopper, plug'

In addition to roots like those in (30), the singulative *-at-* also shows up in a rather unexpected place—between some roots and the plurative I {-íkó-}. In this enviroment, it may surface as *-ati-* or the reduced form *-a-*. This occurrence indicates that the singulative was at one time productive in Ik, was then lost, but was partially retained with some nouns and a particular plurative. This is analogous to the plurative II suffix {-ítíní-} which consisted historically of the dingulative *-ɪtɪ-* and the plurative {-ɪnɪ-}. In the following table, note that for *kɔrɔ́baiko-* 'calves', the singulative allomorph *-a-* blocks vowel harmony from dominant [+ATR] pluralizer {-íkó-}:

(31)   *Ik nouns with the frozen singulative* -a(t)

bɔnání-	→	bɔnán-á-iko-	'orphans'
cúrúku-	→	cúrúk-a-iko-	'bulls'
kɔrɔ́bɛ-	→	kɔrɔ́b-a-iko-	'calves'
lobáa-	→	lobá-át-iko-	'grandchildren'

Finally, it is interesting that in So, a Kuliak sister language of Ik, *-at* is used to singularize nouns that are cognate in Ik where they have general number. For example, the transnumeral *síts^a* 'hair' and *tsúts^a* 'fly (n.)' in Ik are cognate with So *sij* and *cuc*, respectively. But unlike in Ik, the So ones can be singularized with *-at*, as in *sij-at* 'hair (sg.)' and *cuc-at* 'fly' (Carlin 1993:74).

Switching now from Nilo-Saharan to Afroasiatic, a couple of endings on Ik noun roots recall various Singulatives found in Dhaasanac. These include *-(V)c*, *-(V)ɲ*, *-ac*, and *-aɲ* (Tosco 2001:75). The next table shows two groups of Ik noun roots based on the general suffixal pattern of *-(V)ɲ* and *-(V)c*:

(32)   *Ik noun roots with frozen Cushitic-like singulatives*

-(V)ɲ		-(V)c	
ɓɔ́kɔɲɪ-	'slope, bank'	bakutsí-	'chest'
gaɗukúɲu-	'Gad'ukuny clan'	baratsó-	'morning'
ɪraɲí-	'corncob pieces'	buratsi-	'Bat-eared fox'
kaɓaɲa-	'oblong gourd'	burukutsi-	'knee-cap'
leweɲi-	'ostrich'	ɓolokotsi-	'oblong gourd'
lósuaɲa-	'stone anvil'	ɗɛrɛtsa-	'kindling'
lɔɓɛlɛɲí-	'diseased millet'	galatsɪ-	'Mt. Galats'
lɔwɪɲí-	'small tree-bee'	iwótsí-	'mortar'
nasoroɲí-	'large intestine'	karatsɪ-	'stool'
ɲémúkuɲi-	'ant sp.'	komótsá-	'elephant trunk'
saŋaɲí-	'person's name'	ɲégetsí-	'leg hairs'
tɔrɔmɪɲa-	'porcupine'	rúgetsi-	'hard protrusion'

An alternative pathway for these frozen singulatives into Ik is through Didinga, a Surmic language that borders Ik to the northwest. Didinga has both a 'rare nominalizer' -*etʃ* and a singulative -*otʃ* (De Jong 2004:150-152). Since even today Surmic languages border Cushitic languages in southwest Ethiopia (not far from the present Ik homeland), the ultimate etymological origin of this type of singulative in Ik is not known. Both language groups have had substantial influence on the development of the Ik language.

Whether from Cushitic or Surmic (or both), what appear to be these singulatives show up in a few other Ik noun roots, but in glottalized form:

(33)   *Ik nouns with a frozen glottalized singulative (-Vts')*

dililits'á-	'bloodsucking gnat sp.'
dololots'í-	'soaked sorghum'
gwaíts'í-	'giraffe'
kerets'ú-	'ant-hill dirt spread to prevent enemies'
ƙálíts'i-	'jaw'
ƙuts'ats'i-	'gland, lymph node'

Another likely historical prefix found on Ik noun roots is *ki-* or *kɪ-*. This frozen prefix may be related to the singulative-like prefix in contemporary Turkana that can be seen in the pair *e-ki-dorị̀* 'door' versus *ŋi-dor-ìn* 'doors' and that has a potential origin in a Nilo-Saharan 'definitizer' (Dimmendaal 1983:252). Other regional parallels include the Proto-Southern-Nilotic deverbative marker **kɪː-* (Rottland 1980) and the Proto-Nilo-Saharan preposition/case marker **kɪ* (Dimmendaal, to appear):

(34)   *Ik nouns with the frozen Nilotic prefix /kI-/*

kíɓíɓita-	'lizard sp.'
kɪlɔlɔɓa-	'wood dove'
kílootóró-	'bird sp.'
kinoroti-	'peg'
kíryooróo-	'White-crested helmet shrike'

Yet another frozen nominal prefix has the form *si-* or *sɪ-*. Besides in Ik, this 'pre-Nilotic' prefix is also attested in Turkana in words like *é-sí-dɔ̀ŋɔ́rɔ́rɪ̀* 'elbow' and *é-sí-gìrígírɪ̀* 'baboon crest' (Dimmendaal 1983:253). The following Ik nouns provide a representative sample:

(35) *Ik nouns with the frozen pre-Nilotic prefix /sI-/*

sídilée-	'turtle'
símídɪdíi-	'tiny thing'
sílɔlɔ́já-	'Dwarf mongoose'
sɪŋílá-	'small black ant sp.'
síɔtɔ-	'Large-leafed albizia'

Finally, three other likely frozen prefixes present themselves in the Ik nominal lexicon. These include /a-/, /o-/, and and /tI-/. Their source languages and original functions have yet to be discovered, but it seems like they may have been markers of gender or definiteness at some point:

(36) *Ik nouns with frozen prefixes of unknown origin*

/a-/	
abúba-	'spider'
agita-	'metal bead'
akínɔ́-	'Greater kudu'
aŋarasá-	'gravel'
asʊnání-	'African pencil cedar '
/-o/	
obóléni-	'hip'
ɔ́dɔka-	'gate'
oɗomori-	'male bushbuck'
okílóŋóró-	'queen bee'
oŋerepé-	'Rufous beaked snake'

/ti-/	
tíbolokoɲi-	'fingernail'
tígaramatsɪ-	'elder child'
tikorotótó-	'aloe vera'
tikorotsi-	'spurfowl'
tilokotsi-	'African grey hornbill'

None of the various prefixes described in this section are believed to have meaning or function in contemporary Ik (beyond possibly identifying a word as noun versus a verb). But they are included here to help the difficult task of reconstructing the linguistic and ethnic pre-history of East Africa. Nominal affixes that do have meaning and function are what follows below.

4.2   Number

Grammatical number is reflected in the Ik nominal system in three ways. First, the base form of nouns is lexically specified for one of three numeric values: 1) singular, 2) plural, or 3) general (number neutral). Second, based on a noun's lexically specified numeric value, the grammar requires number agreement on relative pronouns, demonstratives, and subject-agreement on verbs (except for 3PL in relative clauses). Third, number may be marked on nouns through a system of singulative and plurative inflectors. In Ik, as in Turkana (Dimmendaal 1983:223), the selection of some pluratives depends on the noun's mora count rather than on semantics or any other factor.

Since the lexically assigned numeric value of a noun cannot necessarily be guessed on semantic grounds, number agreement provides the needed clues. For example, in (37) below, the non-past demonstrative clitics {=na} 'this' and {=ni} 'these' can reveal a number-neutral noun's numeric value:

(37)   Singular: ámá- 'person'   ámá=na   'this person'
                                      **ámá=ni   'these persons'

Plural:	roɓa- 'people'	roɓa=ni	'these people'
		**roɓa=na	'this people'
General:	ínó- 'animal'	ínwá=na	'this animal'
		ínwá=ni	'these animals'

Numeric values like the ones evident in (37) are not always obligatorily marked in the nominal system. Number is commonly marked inflectionally with singulatives or pluratives or grammatically with relative pronouns, demonstratives, and subject-agreement, but it is still optional. For example, without modifiers of any kind, the object *rié-* 'goat' in (38) has two interpretations with regard to its grammatical number:

(38) *Toŋolata naa riyek.*

tɔŋɔ́l-át-a=naa   rié-kᵃ

slaughter-3PL-REAL=PST1   goat-ACC

  a) They slaughtered a goat.

  b) They slaughtered goats.

If the noun in question is the subject, its number is marked with subject-agreement suffixes (3SG being null), but this type of marking is defective. For example, in unmarked main clauses, where the verb comes before the subject, both 3SG and 3PL overt subjects are marked as 3SG (null) on the verb. This is true whether grammatical number is encoded generally (39) or with a plurative suffix (40):

(39) *Bwaanukotaa inw.*

buan-uƙot-á-á   ínw-ᵃ

disappear-COMP[3SG]-REAL-PRF   animal(s)-NOM

  a) The animal has disappeared.

  b) The animals have disappeared.

(40) *Bwaanukotaa ebitiɲ.*
      buan-uƙot-á-á   έb-ɪtín-∅
      disappear-COMP[3SG]-REAL-PRF   gun-PL-NOM
      The guns have disappeared.

But if the subject is left implicit (41), or if it is a pronoun (42), then subject-agreement marking must reflect the number of the subject:

(41) *Bwaanukotak.*   *Bwaanukotatak.*
      buan-uƙot-á-kᵃ   buan-uƙot-át-a-kᵃ
      disappear-COMP[3SG]-REAL-PRF   disappear-COMP-3PL-REAL-PRF
      It has disappeared.   They have disappeared.

(42) *Bwaanukotata nt.*
      buan-uƙot-át-a-a   ńt-ᵃ
      disappear-COMP-3PL-REAL-PRF   they-NOM
      They have disappeared.

Another interesting feature of Ik number-marking on verbs is what Serzisko called the 'coordinated subject' (1992:192). A coordinated subject is a singular subject marked as plural on the verb because it is extra-linguistically accompanied by one or more other entities. For example in (43) below, the subject of the clause is semantically plural (Teko and his wife), and this is reflected by the plural marking on the verb. But syntactically, the subject is singular (*Tekoa*), the accompaniment of his wife being encoded by the oblique case noun phrase *ń⁺da ntsí-cék^i*:

(43) *Kaini Tekoa kedo kon nda ntsicek.*
      ƙa-ini   tekó-a   ké⁺d-o   kɔn-a   ń⁺da   ntsí-cék^i
      go-SEQ[3PL] Teko-NOM   unit-INS one-REAL with   he-wife[OBL]
      And Teko went together with his wife.

The kind of inherent number ambiguity shown in (37) is only an issue with nouns that have a general or neutral numeric value. For most nouns, a bare form (or one with a singulative) implies singularity, while a plurative (or bare plural form opposite a singulative) implies plurality. This is where the language's nominal number-marking inflectional system comes into play.

Ik has a two-term inflectional system for marking number on nouns. At the notional level, this encodes singular and plural. Singular in this system means 'one', and plural means 'more than one'. The two terms—singular and plural—can be mapped on the surface level using three different strategies: 1) a zero-marked, basic singular and a plurative-marked plural, 2) a possessive singulative-marked singular and a possessive plurative-marked plural, or 3) a singulative-marked singular with a basic, zero-marked plural. The table in (44) show how these strategies are mapped out:

(44)   *Ik nominal number-marking strategies*

	Singular	Plural
Strategy 1	-∅	-íkó-/-ítíní-/-ɪka-
Strategy 2	(-ɛdɛ-)	-ɪnɪ-
Strategy 3	-V́ma-	-∅

The plurative {-ɪka} in Strategy 1 is the only fully productive number-marking nominal suffix in the language. It pluralizes polymoraic roots, and any newly borrowed noun is polymoraic by virtue of its having the frozen prefix ɲV-. By the same token, the other two Strategy 1 pluratives are non-productive, since the nouns they pluralize are in a fixed lexical set. Strategy 2 is semi-productive in that it only applies to semantically specified subsets of nouns. The parentheses around the singular form of Strategy 2 signify that while the plural is always the plural of the singular, the plural forms do not always have a singularized counterpart. Lastly, Strategy 3, while still operative in Teso-Turkana, is also no longer productive in the Ik of today.

These singulatives and pluratives are described in the next several sections. They are shown mostly in their underlying and therefore hyphenated forms to expose their final vowels that may be deleted in the nominative case (isoation form). All the Ik pluratives have parallels in wider Nilotic, for example Turkana. Like in Turkana, all Ik number-marking suffixes delete the final vowel of the nominal stem (Dimmendaal 1983:229-232). By way of introduction, these suffixes are summarized in the following table:

(45)   *Ik nominal number-marking suffixes*

Suffix	Abbrev.	Name	Comments
{-íkó-}	PL	Plurative I	[+ATR]-dominant
{-ítíní-}	PL	Plurative II	monomoraic stem
{-ɪka-}	PL	Plurative III	polymoraic stem
{-ɪnɪ-}	POSS.PL	Possessive plurative	possession
{-ɛdɛ-}	POSS.SG	Possessive singular	possession
{-Vma-}	SING	Human singulative	human nouns only

4.2.1 Plurative I

The Ik plurative I {-íkó-} is found pluralizing both monomoraic and polymoraic nominal stems. It is not productive: The nouns it pluralizes belong to a fixed lexical set that, as far as can be observed, does not admit new members. The plurative I seems to be a parallel of the Turkana pluralizer *-íyó* (Dimmendaal 1983:235), which if true, would suggest that the intervocalic /k/ was retained in Ik and lost in Turkana.

In both languages, these suffixes are dominantly [+ATR]. For Ik, this means that the [+ATR] harmony spreads leftward to the whole stem unless /a/ intervenes. In this case, the /a/ is an instance of the frozen singulative *-á(t)* (see ex. 31 above). The plurative I causes and undergoes tonal alternations. The tone changes it causes are due to replacive morphological tone, and the changes it undergoes are due to melodic template completion. For example, it changes the tones of *wɛla-* 'small opening' to H in *wél-íkwᵃ*. And after the

noun *fátára-* with its HHL melody, the suffix surfaces as /-ikó-/. These and several other tone combinations are shown in the following table:

(46)   *Plurative I {-iko-} according to tone melody*

#	Singular		Plural	
1	HH	→	HH-H	
	ƙɔré-	→	ƙór-íkó-	'ladle(s)'
	ŋérá-	→	ŋér-íkó-	'mingling stick(s)'
2	HL	→	H-LH	
	fádo-	→	fád-ikó-	'scale(s)'
	wázo-	→	wáz-ikó-	'young female(s)'
3	LL		H-HH	
	paɗo	→	páɗ-íkó-	'small cave(s)'
	wɛla-	→	wél-íkó-	'small opening(s)
4	LH	→	H-HH	
	kɔlá-	→	kól-íkó-	'castrated goat(s)'
	rɔá-	→	ró-íkó-	'desert(s)'
5	HHL	→	HH-(L)LH	
	cúrúku-	→	cúrúk-aikó-	'bull(s)'
	fátára-	→	fátár-ikó-	'vertical ridge(s)'
6	LHL	→	LH-(L)LH	
	kɔrɔ́bɛ-	→	kɔrɔ́b-aikó-	'calf(ves)'
	loƙúu-	→	loƙú-aikó-	'drinking gourd(s)'
7	LLH	→	LH-HH	
	baratsó-	→	baráts-íkó-	'morning(s)'
	ɔrɔrɔ́-	→	orór-íkó-	'stream(s)'

Since the final vowel of {-íkó-} is non-low, it is susceptible to desyllabification in the nominative case (see §2.4.3 and §6.3.2). For example, this means that in the nominative case the word for 'bulls' surfaces as *cúrúkaikw^a* and the word for 'small openings' as *wélíkw^a*.

4.2.2 Plurative II

The plurative II {-ítíní-} is made up etymologically of the archaic singulative *-it-* and the plurative {-ını-}, both of which have parallels in Nilotic languages. But synchronically, this plurative is analyzed as monomorphemic in Ik because the corresponding singular forms do not bear the singulative *-ıt-*. For example, though the plural of 'dog' is *ŋók-ítín*, the singular is *ŋók^a*, not ***ŋók-ít^a*. At some point in the past, the once-productive singulative attached to the plurative and then later dropped out of usage. This habit of retaining an archaic singulative that only appears with a plurative was also noted in the case of *-a(t)* attaching to {-íkó-} (§4.2.1).

The plurative II suffix is recessive in terms of vowel harmony, making /-ítíní-/ an allomorph on [+ATR] stems. And in terms of tone behavior, {-ítíní-} combines with bisyllabic noun roots to produce the five composite tone melodies shown in (47) below. Like the plurative I, the plurative II both causes and undergoes tonal alternations. The tone changes it causes are due to replacive morphological tone, and the changes it undergoes are due to melodic template completion. For example, it changes the tones of *lara-* 'tobacco pipe' to H in *lár-ítín*. And after the noun *ído-* 'breast' with its HL melody, the suffix surfaces as /-itín/. An interesting distinction occurs below between #3 and #4: Although the root melody of the nouns in #4 are LL, they do not take a H tone with the plurative II as they do in #3, presumably because the depressor consonants /b/ and /g/ prevent H-tone docking. But this is excepted by *zɔ́t-ítín* 'chains' which has both a H tone in the plural and begins with the depressor consonant /z/:

(47) *Plurative II {-ítíní-} according to tone melody*

#	Singular		Plural	
1	HH	→	H-HHH	
	ŋókí-	→	ŋók-ítíní-	'dog(s)'
	ɔ́ʝá-	→	ɔ́ʝ-ítíní-	'wound(s)'
2	HL	→	H-LHH	

	ído-	→	íd-itíní-	'breast(s)'
	nébu-	→	néb-itíní-	'body(ies)'
3	LL	→	H-HHH	
	lara-	→	lár-ítíní-	'tobacco pipe(s)'
	zɔta-	→	zɔ́t-ítíní-	'chain(s)'
4	LL	→	L-LHH	
	bosi-	→	bos-itíní-	'ear(s)'
	gʊra-	→	gʊr-ɪtíní-	'Sickle bush(es)'
5	LH	→	L-LHH	
	aká-	→	ak-itíní-	'mouth(s)'
	rʊkʊ́-	→	rʊk-ɪtíní-	'hump(s)'

Plurative II is one of two Ik pluratives that is selected on the basis of mora-counting as a general principle. This principle stipulates that the pluralized stem have three moras in its isolation form (i.e. in the nominative case). The 'stem' in this case is a noun root minus its final vowel, since the final vowel is first subtracted by the plurative suffix. Plurative selection based on mora-counting is attested in wider Nilotic, for example in Dholuo and Turkana. But the mora-counting of Turkana pluratives differs from that of Ik in this regard: The plurative a Turkana nominal stem selects depends on the *input* of pluralization—the singular stem's (root plus gender prefix) mora count (plus a few other factors; see Dimmendaal 1983:226). But in Ik, it is the *output*, not the input of pluralization that is constrained by the mora count (Maarten Mous, p.c.). In other words, Ik morpho-phonology tries to keep the plural form of shorter noun roots at three moras, no more, no less:

(48) *Mora-counting pluralization in Turkana and Ik*

Turkana		Ik	
Input	Output	Input	Output
2 moras	CV-CVC-ín	CVC-itín	3 moras
3 moras	CV-CVVC-à(-o)	CVVC-ik	3 moras
3 moras	CV-CVCVC-í `	CVCV(C)-ik	3 moras

With regard then to the Ik plurative II, it accords with the Turkana plurative *-ín* both in etymology and it producing plural nouns with three moras. What Ik lacks in terms of a mora-supplying gender prefix (that Turkana has), it makes up for by preserving the fossilized singulative *-it* along with *-ín*.

The table below presents a sample nouns with different syllable structures pluralized with {-ítíní-}. Recall that the statement about mora-counting applies only to the isolation forms of plural nouns (nominative case, final form). This is because in other cases and contexts, the number of moras a pluralized stem has varies. For example, the non-final ablative case form of 'dogs' is *ŋókítínío*, which has a total of five moras instead of three.

(49)   *Plurative II {-ítíní-} according to syllable type*

	Singular		Plural	
VCV-	aká-	→	ak-ítíní-	'mouth(s)'
	édi-	→	éd-itíní-	'name(s)'
	oní-	→	on-ítíní-	'abandoned village'
CVV-	ɗau-	→	ɗaw-ɪtíní-	'knife(ves)'
	ƙíɔ́-	→	ƙí-ítíní-	'strap(s)'
	séí-	→	sé-ítíní-	'quartz (pieces)'
CVCV-	baro-	→	bar-itíní-	'herd(s)'
	nébu-	→	néb-itíní-	'body(ies)'
	ŋila-	→	ŋíl-ítíní-	'gizzard(s)'

4.2.3 Plurative III

The plurative III {-ɪka-} is a likely reflex of both the Proto-Southern-Nilotic plurative *-ɪka* (Rottland 1980) and the Teso-Turkana *-ìà* (Dimmendaal 1983:235). As a counterpart of {-ítíní-}, {-ɪka-} is used to pluralize polysyllabic noun roots (minus final vowel), producing a nominative-case plural form with three moras (see ex. 48 above). Beyond this, it is the required plurative when pluralization yields an output with four or more moras. Since a) most words borrowed into Ik come through Teso-Turkana

and b) many Teso-Turkana words are polymoraic, the plurative III is the plurative of choice for borrowed words and therefore the only fully productive plurative in the Ik language today. The following table offers an overview of the syllable types of nouns that the plurative III pluralizes:

(50)   *Plurative III {-ɪka-} according to syllable type*

	Singular		Plural	
VCVC	aƙatí-	→	áƙát-ika	'nostril(s)'
	itúbá-	→	itúb-íka-	'trough(s)'
	ofurí-	→	ofúr-íka-	'pouch(es)'
CVCV	góʒou-	→	góʒo-ika-	'mist(s)'
	ƙɔfɔ́ɔ-	→	ƙɔfɔ́-ika-	'calabash(es)'
	mʊtʊʊ́-	→	mʊtʊ́-íka-	'needle(s)'
CVCVC	karatsi-	→	káráts-ika-	'stool(s)'
	kesení-	→	késén-ika-	'shield(s)'
	tsɪrɪmʊ́-	→	tsɪrɪ́m-íka-	'metal(s)'
CVCVCV	cíkóroí-	→	cíkóro-ika-	'boundary(ies)'
	nasɛmɛ́ɛ-	→	nasɛmɛ́-ɪka-	'oblong gourd(s)'
	ɲétsúpaá-	→	ɲétsúpa-ika-	'bottle(s)'
CVCVCVC	ɓoliɓoli-	→	ɓolíɓól-ika	'goiter(s)'
	ɲaŋalúrá-	→	ɲaŋalúr-íka-	'kidneys'
	ts'úbʊlátí-	→	ts'úbʊlát-íka-	'plug(s)'

The plurative III is recessive in terms of vowel harmony, making /-ika-/ an allomorph on [+ATR] stems. In terms of tonal behavior, the plurative III exhibits both melodic template completion and replacive grammatical tone. For example, although the underlying tone of {-ɪka-} is LL, it becomes LH after a LHH noun, as when *titírí-* 'forked pole' → *titíríka-* in the plural. And as an example of replacive grammatical tone, the L-toned noun *cɛmɛrɪ-* 'herb' is pluralized with {-ɪka-} to produce *cɛmɛ́r-íka-*. These and several other plurative III melodies are presented below in (51):

(51) *Plurative III {-ɪka} according to tone melody*

#	Singular		Plural	
1	HHL	→	HH-LL	
	ɓʊ́ɓʊ́sa-	→	ɓʊ́ɓʊ́s-ɪka-	'*Terminalia* perfume(s)'
	lɔ́tɔ́ɓa-	→	lɔ́tɔ́ɓ-ɪka-	'tobacco(s)'
2	HLH	→	HL-LL	
	ŋáturí-	→	ŋátur-ika-	'flower(s)'
	ɲámalí-	→	ɲámal-ɪka-	'bullet(s)'
3	HLL	→	HL-LL	
	kúbura-	→	kúbur-ika	'big container(s)'
	gózou-	→	gózo-ika-	'mist(s)'
4	LHH	→	LH-HL	
	iwótsí-	→	iwóts-íka-	'mortar(s)'
	lɔkúɗá-	→	lɔkúɗ-íka-	'small granary(ies)'
5	LHL	→	LH-LL	
	tsakúde-	→	tsakúd-ika-	'firestick(s)'
	ƙʊléɛ-	→	ƙʊlé-ɪka-	'elbow(s)'
6	LLH	→	HH-LL	
	ɦyʊƙʊmʊ́-	→	ɦyʊ́ƙʊ́m-ɪka-	'neck(s)'
	kuɲukú-	→	kúɲúk-ika	'pestle(s)'
7	LLH	→	HL-LL	
	gubesí-	→	gúbes-ika-	'thigh(s)'
	sugurá-	→	súgur-ika-	'wind(s)'
8	LLL	→	LH-HL	
	cɛmɛrɪ-	→	cɛmɛ́r-íka	'herb(s)'
	tsoriti-	→	tsorít-íka-	'vein(s)'
9	LLL	→	HH-LL	
	poroti-	→	pórót-ika-	'bent stick-tool(s)'
	jɪrɔkʊ-	→	jírɔ́k-ɪka-	'toy spear(s)'
10	LLL	→	HL-LL	
	bubuu-	→	búbu-ika-	'belly(ies)'
	kabaɗa-	→	kábaɗ-ika-	'rag(s)'

Some exceptions occur as to the notion that {-ɪka-} pluralizes only nouns with more than two syllables in the base form. All the recorded exceptions are listed below. In a few of them, for example *gwasá-* 'stone', the semi-vowel /w/ is found, suggesting that in these cases /w/ is counted as one mora when the plurative is selected based on mora-counting. In others like *séda-* 'garden' and *hoo-* 'hut', the depressor consonants /d/ or /h/ may also be counted as moraic. In others, though, like *kíɟá-* 'land, there is no synchronic hint as to why it is pluralized as *kíɟík* instead of **kíɟítín.

(52)   *Plurative III {ɪ́ka} with bisyllabic noun roots*

Singular		Plural	
awá-	→	áw-ika-	'home(s)'
gwasá-	→	gwas-ika-	'stone(s)'
hoo-	→	ho-ika	'hut(s)'
kíɟá-	→	kiɟ-ika-	'land(s)'
kwará-	→	kwar-ika-	'mountain(s)'
ƙwaza-	→	ƙwáz-ika-	'item(s) of clothing'
kwɛtá-	→	kwɛt-ɪka-	'arm(s)'
ríɟá-	→	ríɟ-ika-	'forest(s)'
séda-	→	séd-ika-	'garden(s)'

4.2.4 Suppletive plurals

A handful of Ik plural nouns must be analyzed as suppletive in synchronic Ik grammar because the singular and plural terms are not derived from each other in any productive way. In the first, third, and fourth rows of (53), each term in the pair is unrelated to the other in any recognizable fashion. However, the second and fifth pairs suggest the following explanations: 1) The plural form of *cekí-* 'woman'—*cɪkámá*—seems to have been formed historically by a plurative parallel to the Dhaasanac plurative *-ia(a)m* (Tosco 2001:83). And 2) the relationship between *kɔ́rɔ́ɓádɪ-* 'thing' and *kúrúɓádi-* 'things' is a kind of ablaut found elsewhere in the grammar only between the singular demonstrative pronoun *dɪ-* and the plural *di-* (see §5.5).

(53) *Ik suppletive plural nouns*

ámá-	'person'	→	roɓa-	'people'
cekí-	'woman'	→	cɪkámá-	'women'
ẹakwá-	'man'	→	ɲɔtɔ́-	'men'
imá-	'child'	→	wicé-	'children'
kɔ́rɔ́ɓádɪ-	'thing'	→	kúrúɓádi-	'things'

4.2.5 Possessive plurative

The Ik possessive plurative {-ɪnɪ-} may be a parallel of the Teso-Turkana plurative *-ìn* (Dimmendaal 1983:225). It is the plurative operating under Strategy 2 introduced in (44) above, with {-ɛdɛ-} as its singulative counterpart (see next section). The possessive plurative fuses plurality and possession into one morpheme. As a plurative, {-ɪnɪ-} pluralizes the stem to which it attaches, not the implied possessing entity. That entity can be singular or plural. For example, the word *ak-ɪn* can mean either a) 'its den entrances' or b) 'their den entrances'. And since {-ɪnɪ-} is a marker of possession, *ak-ɪn* cannot simply mean 'den entrances' but rather 'den entrances' associated with some person, or in this case, some animal.

Although it connotes plurality, {-ɪnɪ-} alone cannot pluralize just any noun. Nouns that are pluralized by {-ɪka} must retain that suffix before the possessive plurative is added. For example, the word meaning 'its branches' must appear as *kwɛt-ɪk-ɪn* not **kwɛt-ɪn. But nouns that are pluralized with {-ítíní-} must first drop that suffix before the possessive plurative is added. This seems to stem from a prohibition against having the morpheme {-ɪnɪ-} occuring twice in the same word. For example, the word meaning 'their den entrances' must appear as *ak-ɪn* rather than **ak-ɪtín-ín.

The possessive plurative is only semi-productive in that it pluralizes nouns restricted to certain semantically specified sets. These include schemas of inalienable possession like 1) whole-part relationships (e.g. body parts, 2)

kinship (blood and marriage relations), and 3) associated persons or things. Examples of {-ini-} encoding a whole-part relationship include:

(54)   *Possessive plurative and a whole-part relationship*

ak-ɪn	'its/their openings'
ekw-in	'its/their seeds (lit. 'eyes')'
ik-in	'their heads'
ɟír-ín	'its/their remainders'
kwa-in	'its/their edges'

And examples of {-ɪnɪ-} encoding kinship relations include:

(55)   *Possessive plurative and kinship relations*

abáŋ-ín	'my paternal uncles'
momó-ín	'my maternal uncles'
ŋgó-ím-ín	'our siblings'
táta-ín	'my paternal aunts'
wik-in	'his/her/their children'

And lastly, below are some examples of {-ɪnɪ-} encoding associated persons. When the possessive plurative is used to pluralize terms of associated people, it is usually translated as 'those of X' in Ugandan colloquial English, since there is no British or American equivalent. Other possible translation options include 'X's people' or 'those associated with X':

(56)   *Possessive plurative and associated persons*

Ámɓa-ín	'those of Amber'
Lomerí-ín	'those of Lomeri'
Lotsul-ín	'those of Lochul'
Nacwéɲ-ín	'those of Nacweny'
Tekó-ín	'those of Teko'

On the side of vowel harmony, the possessive plural is recessive, making /-ini-/ an allomorph on [+ATR] stems. The tone melodies it produces with noun stems are summarized in (57):

(57)   *Possessive plural {-ɪnɪ-} according to tone melody*

#	Singular		Plural	
1	LH	→	L-LL	
	iká-	→	ik-ini-	'their heads'
	wicé-	→	wik-ini-	'his/her/their children'
2	LL	→	H-HL	
	basa-	→	bás-íni-	'its/their rays/spots'
	sʊwa-	→	súw-ínɪ-	'its/their barbs'
3	LHL	→	LH-LL	
	leúzo-	→	leúz-ini-	'its/their charcoal'
4	LHL	→	LH-HH	
	abáŋɪ-	→	abáŋ-íní-	'my fathers'
	tekóo-	→	tekó-íní-	'those of Teko'
5	LLH	→	HL-LL	
	kabasá-	→	kábas-ini-	'its/their flour'
6	HLL	→	HL-HH	
	tátaa-	→	táta-íní-	'my paternal aunts'

4.2.6 Possessive singulative

The possessive singulative {-ɛdɛ-} has Cushitic parallels in Dhaasanac *-íet*, Somali *eed*, and Somali/Arbore *-et'*—all of which are related to possession (Tosco 2001:97). Like its plurative counterpart, the possessive singulative fuses singularity and possession into one morpheme. Its singularizes the stem to which it attaches and encodes the notion that the stem is associated with some entity. That entity may be singular or plural. For example, the word *ak-edᵃ* can mean either a) 'its den entrance' or b) 'their den entrance'.

Also like the possessive plurative, {-ɛdɛ-} is used to express a) whole-part relationships and b) relationships of association. Kinship relations are not as commonly encoded by {-ɛdɛ-} as they are with {-ɪnɪ}, but some forms are found, for example *dzak-ɛdᵃ* 'small child' and *ɟágw-edᵃ* 'his/her/their daughter'. In the whole-part semantic schema, the {-ɛdɛ-} is often used in relational nouns (§4.3.8), for example in *gwaríéda hoᵉ* 'the top of the house'.

(58)   *Possessive singulative and semantic schemas*

Whole-Part	
áƙw-édᵃ	'its inner part'
dɛ-ɛdᵃ	'its base (lit. 'foot')'
ik-edᵃ	'its head'
kan-edᵃ	'its back (part)'
káts-édᵃ	'its front part'
Association	
ám-édᵃ	'its/their owner'
kíɟ-édᵃ	'his/her/their land (i.e. nationality)'
legé-edᵃ	'his/her madness (mental illness)'
mucé-édᵃ	'its/their trail (animal tracks)'
taŋé-édᵃ	'its/their companion'

The possessive singulative is recessive in terms of vowel harmony, making /-ede-/ an allomorph on a [+ATR] stem. Tonally, it undergoes melodic template completion, for example when its LL melody changes to HL in *áƙw-édɛ-* 'inside it'. It may also replace tones, as in *náƙáf-ɛdɛ-* 'its point':

(59)   *Possessive singulative {-ɛdɛ} according to tone melody*

#	Singular		Plural	
1	HH	→	H-HL	
	kíɟá-	→	kíɟ-éde-	'his/her/their land'
2	HL	→	H-LL	
	ɔ́za-	→	ɔ́z-ɛdɛ-	'its bottom (part)'

3	LH	→	L-LL	
	dɛá-	→	dɛ-ɛdɛ-	'its base'
	kaná-	→	kan-ede-	'its back (part)'
4	LH	→	H-HL	
	akɔ́-	→	áƙw-ɛ́dɛ-	'its inside (part)'
5	LHL	→	LH-LL	
	gwaríi-	→	gwarí-éde-	'its top (part)'
	ƙɔfɔ́ɔ-	→	ƙɔfɔ́-ɛdɛ-	'its calabash (first harvest)'
6	LLH	→	LH-HL	
	muceé-	→	mucé-éde	'its trail'
7	LLH	→	HH-LL	
	naƙafú-	→	náƙáf-ɛdɛ-	'its point (lit. 'tongue')'
8	LHH	→	LL-HL	
	morókú-	→	morok-éde-	'its throat (gun barrel)'
9	LHH	→		
	ŋabérí-	→	ŋáber-ede-	'its side (lit. 'rib')'
10	LL	→	H-HL	
	ɟɪrɪ-	→	ɟír-ɛ́dɛ-	'its remainder'
11	LL	→	L-LL	
	waʃɪ-	→	waʃ-ɛdɛ-	'its beginning point'
	ɓiɓa-	→	ɓiɓ-ede-	'its egg-yolk'

4.2.7 Human singulative

The second singulative to be discussed is {-Vma-} and is called the 'human singulative' because it is found only with nouns referring to humans (Heine & König 1996:20). It seems to be related etymologically to the agentive (§4.3.4) and the patientive suffix (§7.2.4), both of which likely originate in the noun root *ámá-* 'person'. The first vowel in {-Vma-} is usually /a/ but can also be /ɔ/ when immediately preceded by /ɔ/. The human singulative singularizes bare plural nouns like these four in (60):

(60)   *Human singulative {-Vma-}*

Plural			Singular	
ɟáká-	'elders'	→	ɟák-áma-	'elder'
kéa-	'soldiers'	→	ké-ama-	'soldier'
lɔŋɔ́tá-	'enemies'	→	lɔŋɔ́t-ɔ́ma-	'enemy'
ŋímɔ́kɔ́kaá-	'young men'	→	ŋímɔ́kɔká-áma-	'young men'

Because underived plural counterparts exist for the singularized forms in (60), the human singulative is treated as a synchronic morpheme. However, *-Vma-* sequences like this suffix are found on a number of nouns in the Ik for which basic plural forms have not been found. It seems probable, then, that this singulative has also been lexicalized in nouns like the following:

(61)   *{-Vma-} as a frozen suffix*

lɔtsɔ́gɔma-	'grass sp.'
ɲékútama-	'leather oil container'
ɲéɲamá-	'cartilage'
rutúduma-	'pigeon'
sakámá-	'liver'
tatanáma-t	'what's-his-name'
ts'ɔkɔ́má-t	'*Sclerocarya birrea* tree'
ts'úgʊramá-	'medicinal tree sp.'
ugwamá-	'sibling-in-law'

4.2.8 Non-countable mass nouns

A further subset of Ik nouns are singular in form but lexically specified as plural. They are interpreted as plural by any plural modifiers that may accompany them. These are non-countable mass nouns that include liquids, powders, and other particulate elements. Some of the more commonly heard non-countable mass nouns include the following, where the plural demonstrative {=ni} indicates that the grammar treats them as plural:

(62)   Noun-countable mass nouns

		Plural {=ni}	Sing. {=na}	
búré-	'dust'	búrá=ni	**búrá=na	'this dust'
cué-	'water'	cua=ni	**cua=na	'this water'
ído-	'milk'	ídwá=ni	**ídwá=na	'this milk'
kabasá-	'flour'	kabasa=ni	**kabasa=na	'this flour'
mɛsɛ-	'beer'	mɛsa=ni	**mɛsa=na	'this beer'
sea-	'blood'	sea=ni	**sea=na	'this blood'
ts'úde-	'smoke'	ts'úda=ni	**ts'úda=na	'this smoke'

4.2.9 General number nouns

Lastly, many Ik nouns naming things in the natural world, like plants, birds, and animals, fall under the category of general number nouns. That is, they are not specified for a numeric value in the lexicon. They can be used either as singular or plural and then take the appropriate modifiers for either number. In the following data set, three representative general number nouns are given with both singular and plural non-past demonstratives:

(63)   *General number nouns*

áts'á=na	'this Sycamore fig tree'
áts'á=ni	'these Sycamore fig trees'
ɓiɓa=na	'this egg'
ɓiɓa=ni	'these eggs'
gwaa=na	'this bird'
gwaa=ni	'these birds'

Such number neutrality on nouns is characteristic of Cushitic languages (Mous 2012:361) and may reflect their ancient influence on Ik.

4.3   Compounds

Besides the number-marking suffixes described in §4.2 and the case suffixes described in §6.2, Ik has no other nominal affixes in the strict sense. The grammar compensates for this relative dearth of nominal morphology by making extensive use of compounds. The analytical division between suffixes and the second (or final of three) term in a compound (N$_2$) is made on the basis of the following points: 1) A suffix subtracts the stem-final vowel, while the N$_2$ does not. 2) A suffix may (and often does) cause tonal changes on the stem, while the N$_2$ never does. An exception to the suffix-N$_2$ distinction is found in those case suffixes that preserve the root-final vowel, thereby violating point (1) above. However, those same case suffixes do not cause tonal changes on the root (see §6.2). As discussed in §6.2.2, the case suffixes may in fact be eroded N$_2$ postpositions, now representing perhaps an intermediary point between an N$_2$ and a suffix.

And so the division drawn in this chapter on nouns between suffixated nouns (§4.2) and compounds (§4.3) is structural rather than semantic. Some semantic notions straddle the suffix-N$_2$ division. For example, plurality is encoded both by the plurative suffixes described in §4.2 and the plurative compound constructions described in this section. The semantic notions of diminutiveness and agentiveness, as two further examples, are encoded by compounds whose N$_2$ are the words for 'child/children' and 'person/Ik', respectively. But it is difficult to tell whether and to what degree the diminutive 'child' is being grammaticalized since it also exists as a free lexeme on its own. That is why, instead of treating the diminutive as a suffix on the basis of possible grammaticalization, it and other constructions like it are all handled in this chapter devoted to compounds, formally defined.

4.3.1   Formal properties

As a noun-building strategy, Ik compounding involves joining two or more (pro)nominal elements together in an associative construction with special formal and semantic characteristics. The formal characteristics include the

following: 1) a phonological word profile with inter-nominal vowel harmony, 2) a tone melody applying over the whole compound rather than its individual elements, 2) a reversed word order—modifier before head—where head before modifier is the norm elsewhere, and 3) a unique case marking whereby the first noun (N_1) take the oblique case and the second noun (N_2) takes whatever case the syntax requires for the whole compound. These formal features show that the construction cannot be called mere 'juxtaposition' as it has been in the literature (e.g. Heine & König 1996:35).

The first formal property of compounds to be discussed is vowel harmony. A compound comprises a phonological word which, by definition, allows a degree of vowel harmony (see §3.1.7). The domain of vowel harmony in Ik compounds is across the boundary between N_1 and N_2. If the first segment of N_2 is the [+ATR] vowel /i/, then it can harmonize the last vowel (if CV-) or the last two vowels (if CVV-) of the N_1. This is a surface level condition and so is not represented elsewhere in the grammar unless particularly relevant:

(64)   *Vowel harmony in compounds*

Lexical	Post-lexical	
ɔ́jítíní-wikᵃ	[ɔ́fítíní-wîkạ]	'small sores'
ƙɔfɔ́-im	[k'ɔ̄fó-îm̥]	'small gourd'
ɲɔ́kɔkɔrɔ́-ím	[ɲɔ́kɔ̂kɔ̄ró-ím̥]	'chick'

Secondly, when two (pro)nominal elements are linked up in a compound, the compound as a whole takes on its own tone melody. Compound-induced tone changes are an instance of melodic template completion: A compound's melody is determined by the tone melody of the N_1 and the changes its effects on the tone of the N_2. Some of the different composite melodies that arise in compounds are exemplified in the following tables.

First, when the N_1 is a bisyllabic noun with a HH melody, any bisyllabic nouns it takes as its N_2 will have a LL melody, regardless of its input melody (HH, LH, LL, etc.). This is evidence of a HH-LL tonal template:

(65)   *Compound tone melodies with a HH N₁ melody*

N₁	N₂		Compound
HH	HH	→	HH-LL
ínó- 'animal'	síts'á- 'hair'	→	ínó-sits'a- 'fur'
ŋókí- 'dog'	tsútsá- 'fly'	→	ŋókí-tsutsa- 'dog-fly'
HH	LH	→	HH-LL
kíjá- 'earth'	imá- 'child'	→	kíjá-ima- 'fairy'
ŋókí- 'dog'	ets'í- 'feces'	→	ŋókí-ets'i- 'ear-wax'
HH	LL	→	HH-LL
ínó- 'animal'	ƙwaza- 'clothing'	→	ínó-ƙwaza- 'leather'
dáŋá- 'white-ant'	kitsa- 'heap'	→	dáŋá-kitsa- 'ant-hill'

Second, when the N₁ is a bisyllabic noun with a LH melody, any bisyllabic nouns it takes as its N₂ will also have a HL melody, regardless of its input melody (HH, LH, LL, etc.). This is evidence of a LH-HL tonal template:

(66)   *Compound tone melodies with a LH N₁ melody*

N₁	N₂		Compound
LH	HH	→	LH-HL
aká- 'mouth'	ámá- 'person'	→	aká-áma- 'talker'
ekú- 'eye'	síts'á- 'hair'	→	ekú-síts'a- 'eyelash'
LH	LH	→	LH-HL
dakú- 'tree'	kwɛtá- 'arm'	→	dakú-kwɛ́ta- 'branch'
fetí- 'sun'	ekú- 'eye'	→	fetí-éku- 'East'
LH	LL	→	LH-HL
dikwá- 'dance'	hoo- 'house'	→	dikwá-hóo- 'dance hall'
icé- 'Ik'	hoo- 'house'	→	icé-hóo- 'Ik house'

Third, when the N₁ is a bisyllabic noun with a LL melody, any bisyllabic nouns it takes as its N₂ will also have a LL melody, regardless of its input melody (HH, LH, LL, etc.). This is evidence of a LL-LL tonal template:

(67)   *Compound tone melodies with a LL N₁ melody*

N₁	N₂		Compound
LL	HH	→	LL-LL
ɗiɗe- 'donkey'	ŋámá- 'sorghum'	→	ɗiɗe-ŋama- 'sorgh. var.'
sea- 'blood'	ámá- 'person'	→	sea-ama- 'murderer'
LL	LH	→	LL-LL
ɗiɗe- 'donkey'	kwatsí- 'urine'	→	ɗiɗe-kwatsi- 'beer'
bosi- 'ear'	ɔká- 'bone'	→	bosi-ɔka- 'ear-bone'
LL	LL	→	LL-LL
fiyɔɔ- 'cow'	baro- 'herd'	→	fiyɔ-baro- 'cow herd'
ɗaɗa- 'honey'	ẹoo- 'bag'	→	ɗaɗa-ẹoo- 'honey bag'

Lastly, when the N₁ is a bisyllabic noun with a HL(L) melody, any bisyllabic nouns it takes as its N₂ will have a LL melody, regardless of its input melody (HH, LH, LL, etc.). This is evidence of a HL-LL tonal template:

(68)   *Compound tone melodies with a HL(L) N₁ melody*

N₁	N₂		Compound
HLL	HH	→	HL-LL
ɗóɗoo- 'sheep'	síts'á- 'hair'	→	ɗóɗo-sits'a- 'wool'
HLL	LH	→	HL-LL
ɗóɗoo- 'sheep'	imá- 'child'	→	ɗóɗo-ima-
HLL	LL	→	HL-LL
ɗóɗoo- 'sheep'	ƙwaza- 'cloth'	→	ɗóɗo-ƙwaza- 'wool cloth'

The data shown above are only representative of a vast array of melodic combinations found in compounds. For a more detailed (but ultimately problematic) discussion of compound tone changes, see Schrock 2011a.

Moving on to compound structure: Compounds reverse the normal noun phrase word order in which modifiers follow the heads they modify. In compounds, the modifier appears as N₁ followed by the head as the N₂.

Take the compound in (69), for instance, where the noun *dakú-* 'tree' is used as the modifying N$_1$. Then compare the word order of the compound with that of a normal noun phrase having the same meaning:

(69)   *Compound versus noun phrase*

dakú$_{MOD}$-ɓɔ́l$_{HEAD}$	ɓɔ́lá$_{HEAD}$ dakwí$_{MOD}$
tree-shin:NOM	shin:NOM tree:GEN
'tree trunk'	'trunk of the tree'

As a third structural feature, compounds involve a special case marking: The N$_1$ takes the oblique case while the N$_2$ takes whatever case the syntax requires for the whole construction. In the oblique case, the form of the N$_1$ is usually an exact representation of its underlying lexical form. An exception to this statement is that a noun ending in a VV sequence will lose its final vowel when joined to another noun in a compound. In the following examples, the noun *bubuu-* 'belly' is compounded with *akɔ́-* 'interior'. Observe that the final vowel of *bubuu-* is lost and that only the case of the N$_2$, *akɔ́-*, changes with different clausal argument structures:

(70)   *Doda bubuaƙw.*

dód-a   bubu-aƙw-ᵃ

hurt-REAL   belly[OBL]-interior-NOM

(My) inner belly hurts.

(71)   *Iya bubuaƙok.*

i-á   bubu-aƙɔ-kᵉ

be-REAL   belly[OBL]-interior-DAT

'It's inside the belly.'

As a fourth structural feature, almost all Ik compounds are endocentric: The N$_2$ is always in the same grammatical category as the compound as a whole. This is true of its word class (nominal) as well as its syntactic function. That is, the morpho-syntactic function of the N$_2$ in a compound is always the

same as that of the whole compound. The N₁, however, can be a pronoun, noun, or a even a verb (in a special form), for example:

(72) *Word class of compound N₁*

Pronoun	ɲci-ƙʊlɛ́	'my elbow'
Noun	tsɔ́rá-ƙʊlɛ	'baboon's elbow'
Verb	takani-ƙʊlɛ́	'Appearing-Elbow (place name)'

Two exceptional exocentric compounds are *ámá-ʑe* 'big person (i.e. one in charge)' and *roɓa-ʑeík* 'big people (ones in charge)'. The N₂ of these compounds is the verb *ʑe-* 'be big'; the *-ik* in *ʑeík* is the adjectival plural suffix (§7.10.5). These lexical compound are so rare it is believed they are calques of the Teso-Turkana 'positioner' nouns *ɛ́kápólóɲɪ̰* 'big person' and *ŋíkápólok* 'big people' (e.g. in Dimmendaal 1983:274-276). The Ik calque of *ɛ́ká-pól-óɲɪ̰* 'big person' has another instantiation as *ámá-ʑe-ám*, a tri-nominal compound with the structure PERSON-BIG-PERSON. This seems to be an even more direct, structurally identical, calque of the Teso-Turkana equivalent.

As a fifth structural feature, each term in an Ik compound can be pluralized. Semantics, though, may restrict which nouns this may apply to. For example, there are no recorded examples of a plural N₁ modifying a singular N₂. Otherwise, the first, second, or both compounded nouns are pluralized with the same pluratives they have in non-compounded environments:

(73) *Pluralization of compound nouns*

SG-SG	dakú-kwɛ́tᵃ	'branch (tree-arm)'
SG-PL	dakú-kwɛ́tíkᵃ	'branches (tree-arms)'
PL-PL	dakwitíní-kwɛtíkᵃ	'branches (trees-arms)'
**PL-SG	**dakwitíní-kwɛtᵃ	'branch (trees-arm)'

4.3.2 Semantic properties

Compounds also have special semantic properties. The combined meaning of the two compounded elements is either 1) more specific or 2) completely different than the meanings of the individual constituents. For example, the compound *icé-ám* 'Ik person' narrows the reference of the compound head *ám* 'person'. And the fact that the compound *fadî-gur* 'bitter-heart' refers to a type of pungent grass species is not automatically known from the meanings of the two component parts.

These semantic properties predispose Ik compounds to futher semantic developments. For example, their ability to narrow the reference of the compound head has lead to the (partial?) grammaticalization of *imá-* 'child' and *wicé-* 'children' into diminutive markers (§4.3.3), as well as the grammaticalization of *ámá-* 'person' and *icé-* 'Ik/people' into agentive markers (§4.3.4). And with a subset of compound heads, compounding has also lead to several locative expressions used as general place names, to the gender specification of birds and animals, and to whole-part relationships including body parts and their semantic extension as relational nouns.

A limited subset of compound heads with locative meanings is used for general place names. These nouns, like *aƙɔ-* 'interior', *awá-* 'home/place', and *hoo-* 'hut', function like postpositions or even incipient case markers (indeed some Ik case markers may have arisen from compound heads or postpositions; see §6.4). Examples include the following:

(74)   *Compound common place names*

aŋarasá-áƙwᵃ	'gravelly area'	(lit. 'gravel-interior')
awá-áƙwᵃ	'compound/yard'	(lit. 'home-interior')
dzígw-awᵃ	'market'	(lit. 'commerce-home')
girésí-awᵃ	'storage place'	(lit. 'storing-home')
wáána-ho	'church'	(lit. 'prayer-hut')

Another subset of compound heads act to specify the gender of birds and animals. These include words like *cikó-* 'male', *ŋwaá-* 'female', and others:

(75) *Compound gender specifications*

ɗiɗe-cúrúkᵃ	'male donkey'	(lit. 'donkey-bull')
ɗiɗe-ŋwa	'female donkey'	(lit. 'donkey-female')
ɗiɗe-waz	'young female donkey'	(lit. 'donkey-young fem.')
ŋókí-cikwᵃ	'male dog'	(lit. 'dog-male')
ŋókí-ŋwa	'female dog'	(lit. 'dog-female')

Single body part terms can be combined with other body part terms or other nouns to create compounds with more specific anatomical references:

(76) *Compound anatomical specifications*

aká-kwáɛ̌ᵃ	'lip'	(lit. 'mouth-tooth')
dɛá-mórókᵃ	'ankle'	(lit. 'leg-throat')
ekú-síts'ᵃ	'eyelash, eyebrow'	(lit. 'eye-hair')
gubesí-ɔ́kᵃ	'thighbone'	(lit. 'thigh-bone')
sea-mucé	'blood vessel'	(lit. 'blood-path')

Some body part terms are also used extensively in compounds as whole-part locative expressions often called 'relational nouns' (e.g. in König 2002:73-75). These relational nouns are dealt with further below in §4.3.8.

The ability of compounds to express meanings greater or different than that of the sum of their parts has made possible 1) creative coinages for newly-encountered technologies, 2) the lexicalization of names for things like plants and animals, and 3) colorful idiomaticization.

As a productive word-building strategy, compounding is often use to coin new terms for new technology. For example, a tripod is called *leweɲí-dɛ* 'ostrich-foot' due to its three-pronged structure. A small vehicle is colloquially called *kae-im* or 'little tortoise'. And several modern tools like

pliers and prongs are given the colorful title *tilokotsi-akᵃ* 'hornbill-beak'. In a reverse process, sometimes newly borrowed words replace older compounds, for example *ɲámákɛtᵃ* 'market' in place of *dzígw-awᵃ*.

A fair number of plant and place names are made up of compounds. Though these compounds have been lexicalized, presumably in the past they were coinages with meanings referencing the meanings of each of the two compounded elements. Some examples include:

(77)   *Compound plant names*

bɛfá-cémér	'*Cissus rhodesiae*'	(lit. 'puff adder-herb')
ɗiɗe-ŋam	'sorghum var.'	(lit. 'donkey-sorghum')
faɗi-gur	'*Fadigura*'	(lit. 'bitter-heart')
gasara-kwatsᵃ	'*Plectranthus* sp.'	(lit. 'buffalo-urine')
kʊlaɓá-kákᵃ	'*Fuerstia africana*'	(lit. 'bushbuck-leaf')

(78)   *Compound place names*

caalí-ím	'Little Hearthstone'	(lit. 'hearthstone-child')
icé-kíjᵃ	'Ikland'	(lit. 'Ik-land')
lɛra-aƙwᵃ	'Among White Thorns'	(lit. 'Whitethorn-inside')
oŋori-awᵃ	'Elephant Place'	(lit. 'elephant-home')
takani-ƙʊlɛ́	'Appearing Elbow'	(lit. 'appears-elbow')

Lastly, some compounds take on the status as idioms once they are repeatedly used in creative, colorful ways. Here are a few examples:

(79)   *Compound idioms*

dɔ́ba-am	'Turkana person'	(lit. 'mud-person')
ɗiɗe-kwatsᵃ	'beer'	(lit. 'donkey-piss')
kae-taƙáˡ	'rubber tire shoe'	(lit. 'tortoise-shoe')
loƙú-ákᵃ	'beer drinking'	(lit. 'gourd-mouth')
loukú-éts'ᵃ	'ancestor'	(lit. 'predator-shit')

4.3.3 Diminutive

The nouns *imá-* 'child' and *wicé-* 'children' may convey the notion of diminutiveness when acting as the head (N₂) of a compound. But the degree to which these nouns have been grammaticalized as diminutive suffixes is difficult to ascertain. They can have both a grammaticalized diminutive sense, as in *ŋókí-im* 'puppy (dog-child)' or a normal lexical sense, as in *ɛdɛ́-im* 'my brother's child'—not 'my little brother'. Examples of the semi-grammaticalized usage of these suffixes include the following:

(80)   *Diminutive entities*

Singular	Plural	
baro-ima-	bárítíní-wicé-	'small herd(s)'
emútí-íma-	emútíka-wicé-	'little story(ies)'
ké˥dí-íma-	—	'a little bit'
ƙɔfɔ́-ima-	ƙɔfɔ́ɪka-wicé-	'small gourd(s)'
ɔ́já-ima-	ɔ́jítíní-wicé-	'small sore(s)'

When compounded with terms for birds and animals, *imá-* 'child' or *wicé-* 'children' convey a sense somewhere between grammatical dimunitiveness and the lexical meaning of young offspring:

(81)   *Diminutive animals*

Singular	Plural	
boroku-ima-	boroku-wicé-	'bush-piglet(s)'
ɗiɗe-ima-	ɗiɗe-wicé-	'donkey colt(s)'
ɗóɗo-ima-	ɗóɗo-wicé-	'lamb(s)'
ɲɔ́kɔkɔrɔ́-íma-	ɲɔ́kɔkɔrɔ́-wícé-	'chick(s)'
ŋókí-ima-	ŋókítíni-wicé-	'puppy(ies)'

Some compounds containg *imá-* 'child' or *wicé-* 'children' as their head have been lexicalized as names for types of people or spirits, for example:

(82)   *Diminutive animate beings*

dúné-im	'old woman'	(lit. 'age-child')
ídeme-im	'earth-worm'	(lit. 'snake-child')
kíjá-im	'forest fairy'	(lit. 'earth-child')
ɲeɗeké-ím	'evil spirit'	(lit. 'sickness-child')

4.3.4 Agentive

Like the diminutive, the agentive compound involves a pair of lexical nouns that seem to be on the way to being grammaticalized as agentive suffixes. These are *ámá-* 'person' for singular and *icé-* 'Ik' for plural. As an analogy with the diminutive, one might expect the plural agentive to be the lexical plural of 'person', which is *roɓa-* 'people', but it is not. That *icé-* is also the Ik's name for themselves suggests that it may have once had a more general meaning like 'people'. Heine has made the plausible suggestion that the agentive *icé-* is derived from the diminutive *wicé-* (Heine & König 1996:20). While in Dime and Sheko, both Omotic languages not so far from Ik, the agentive is derived from a form of the word for 'father' (Mulugeta 2008:59).

'Agentive' is used here in a broad sense, not just for the semantic role of 'agent' but for anyone characterized by the reference of the N_1. The equivalent of the Ik agentive in Turkana is called a 'positioner noun' and is divided up into such categories as 'agentive', 'processor', and 'essive' (Dimmendaal 1983:274), but this is not done here. In its most basic conception, the Ik agentive means 'the X person' or 'the X-people'. It can also be translated as 'the person/people who X' or 'X-er(s)', depending on the compound's N_1, which can be a noun or a nominalized verb. So the agentive, broadly defined, covers a range of nuances like 1) a person doing an action, 2) a person characterized by a state, 3) a person characterized by a thing, and 4) a person belonging to a group, particularly an ethnic group.

The N1 of an agentive compound can be a noun or nominalized verb. The following are examples of agentives with nouns as the N_1:

(83)   *Agentives with a nominal N₁*

Singular	Plural	
cooka-ama-	cooka-icé	'shepherd(s)'
dɛá-áma-	dɛá-ícé-	'messenger(s)'
dzú-áma-	dzú-íce-	'thief(ves)'
ésá-ama-	ésá-ice-	'drunkard(s)'
ƙaƙa-ama-	ƙaƙa-icé-	'hunter(s)'
tɔkɔba-ama-	tɔkɔba-icé-	'farmer(s)'

But in the majority of agentive compounds, the N₁ is a nominalized verb, either transitive or intransitive. In principle, there is no restriction on the number of affixes found on such N₁ verbs. For many deverbal agentives, the best English translation usually involves the suffix *-er(s)*:

(84)   *Agentives with a deverbal N₁*

Singular	Plural	
asínítoni-ama-	asínítoni-icé-	'dreamer(s)'
ɓúƙóni-ama-	ɓúƙóni-icé	'adulterer(s)'
ɪrɪtsɛ́sí-ama-	ɪrɪtsɛ́sí-icé	'keeper(s)'
iwóróni-ama-	iwóróni-icé-	'wanderer(s)'
túbesi-ama-	túbesi-icé	'follower(s)'

For other intransitive verbs acting as N₁, especially adjectival ones, the best translation into English often involves adjective modifiers e.g.:

(85)   *Agentives with an intransitive/adjectival deverbal N₁*

Singular	Plural	
baroni-ama-	baroni-icé-	'rich person(s)'
botibotosí-áma-	botibotosí-ícé-	'migrant(s)'
buɗámóni-ama-	buɗámóni-icé-	'black person(s)'
ɓets'oni-ama-	ɓets'oni-icé-	'white person(s)'
zeoni-ama-	zeoni-icé-	'big person(s)'

Many Ik ethnonyms for other groups are composed of agentive compounds:

(85) *Agentives as ethnonyms*

Singular	Plural	
Allá-áma-	Allá-ícé-	'Muslim(s)'
Gwágwa-ama-	Gwágwa-icé-	'Dodoth(s)'
H'yɔ-ama-	H'yɔ-icé-	'foreigner(s)'
Icé-áma-	(Icé-)	'Ik(s)'
Pakó-áma-	Pakó-ícé-	'Turkana(s)'

4.3.5 Pronominal

Compounds are also made with pronouns serving as N_1, N_2, or both. These pronominal compounds include the personal possessive (§5.1.2), the emphatic (§5.1.3), and the impersonal possessum (§5.2):

(86) *Pronominal compounds*

Personal possessive	ɲci-rago-	I[OBL]-ox	'my ox'
Emphatic	ɲci-nebu-	I[OBL]-body	'myself'
Impersonal possessum	ɲj-éní-	I-PSSM	'mine'

4.3.6 Internal plurative

The internal plurative *-ɑjíká-* is a complex compound N_2 composed of the unknown root *ɑj-* and the plurative III {-ɪka-}. Because of its function as a plurative, a tempting analysis is to treat it as a suffix. However, because a) it does not delete the stem-final vowel, and b) it does not change the stem tone melody, it must be viewed as the N_2 of a compound construction.

The internal plurative expresses the meaning 'the interior of more than one X'. The root *ɑj-* has not been identified as an independent noun. But both form and meaning suggest a connection with the noun *akɔ́-* 'inside/interior', which when pluralized (*akwíní-*) and used in compounds, has a similar

meaning as the internal plurative. The internal plurative is not often used, but three examples of it are given below:

(87) *Internal plurative compounds*

Plural			Internal Pl.	
áw-ík[a]	'homes'	→	áw-íka-aɟíká-	'in/among homes'
ríɟ-ík[a]	'forests'	→	ríɟ-íka-aɟíká-	'in/among forests'
séd-ik[a]	'gardens'	→	séd-ika-aɟíká-	'in/among gardens'

4.3.7 Variative plurative

The variative plurative *-icíká-* is also a complex N_2 possibly composed of the sequence *-ic-* and the plurative III {-ɪka-}. Like the internal plurative, it may be tempting to view this N_2 as a suffix instead, but it does not a) subtract the stem-final vowel nor b) altern the stem tone melody. So for those reasons, it is analyzed here as (semi-) grammaticalized N_2.

The variative plurative expresses the meaning 'kinds of X' or 'various X'. Structurally, it seems to be either a) a reduplication of the plurative III {-ɪka-} or b) a combination of the diminutive/agentive *(w)icé-* and the plurative III {-ɪka-}. Regardless of it etymology, *-icíká-* is often used to pluralize nouns not normally (re-)pluralizeable, for example 1) general number nouns, 2) nouns not pluralizeable with any other plurative, 3) inherently plural nouns, 4) nominalized verbs, 5) and pluralized nouns.

(88) *Variative plurative with general number nouns*

gwa	'bird(s)'	→	gwa-icíká-	'various (kinds of) birds'
ínw[a]	'animal(s)'	→	ínó-icíká-	'various (kinds of) animals'

(89) *Variative plurative with otherwise non-pluralized nouns*

cɛm	'fight'	→	cɛmá-ícíka-	'various fights (war)'
didi	'weather'	→	dídi-icíká-	'kinds of weather'
ɲakuɟ[a]	'God'	→	ɲakuɟí-ícíka-	'(various) gods'

(90) *Variative plurative with inherently plural nouns*

mɛn	'issues'	→	mɛná-ícíka-	'various issues
se	'blood'	→	sea-icíká-	'various types of blood'

(91) *Variative plurative with nominalized verbs*

ɗoɗ-et-és	'to point'	→	ɗoɗ-et-ésí-icíká-	'announcements'
wet-és	'to drink'	→	wet-ésí-icíká-	'beverages'

Lastly, the variative plurative can add a variative meaning to nouns already pluralized with another plurative. (92) gives the only recorded example:

(92) *Variative plurative with already pluralized nouns*

dakú-	'tree'
dakw-ítíní-	'trees'
dakw-ítíní-icíká-	'various (kinds of) trees'

4.3.8 Relational nouns

A number of Ik body-part terms are used in whole-part expressions as 'relational' nouns (König 2002:73-75). These nouns are found in two morpho-syntactic positions: 1) as the N₂ of a compound (hence their being treated in this section on compounds) and 2) as a noun phrase head with a) the possessive singulative and b) a genitive modifier (which may be implied). Though synchronically they still function as full nouns (that can take any of the eight morphological cases), the relational nouns exhibit a very 'preposition-like' function, particularly as the noun phrase head. The following two tables compare singular and plural relational nouns:

(93) *Relational nouns, singular and plural*

'tooth'		Relational sense
Lexical	kwačá-	'edge'
As N2	mucé-kwáča-	'path-edge'
As NP head	kwe-eda muceé	'edge of the path'

'teeth'		
Lexical	kwa-ɪtíní-	'edges'
As N2	mucé-kwá-ɪnɪ-	'path-edges'
As NP head	kwa-ɪna muceé	'edges of the path'

(94) presents a full list of the known body-part relational nouns:

(94)   *Body-part relational nouns*

	Lexical meaning	Relational meaning
aká-	'mouth'	'opening, entrance'
aƙatí-	'nose'	'stem, handle'
aƙɔ́-	'head?'	'inside'
bakutsí-	'chest'	'front side'
bubuu-	'belly, abdomen'	'under, below'
ɓɔ́lɛ́-	'shin'	'trunk, column'
dɛá-	'foot, leg'	'base, foot'
ekú-	'eye'	'point, center'
ɛ́ba-	'horn'	'long, thin tool'
gúró-	'heart'	'core, essence'
gwaríi-	'?'	'top, above'
iká-	'head'	'top, head'
kaná-	'back'	'back'
komosí-	'buttock'	'back part'
kwačá-	'tooth'	'edge, side'
kwaní-	'penis'	'sharp part'
kwɛtá-	'hand, arm'	'branch, appendage'
ƙʊlɛ́ɛ-	'elbow'	'bent, curved part'
morókú-	'throat'	'narrow part'
ŋabérí-	'rib'	'side'
ɔká-	'bone'	'hard part, shell'
ɔ́za-	'bottom (pubic)'	'back, bottom'
sɔkɔ́-	'hoof'	'base, root'

For the word *gwaríi-* 'top', with its common variant *gwaría-*, no original lexical meaning has been recovered. It has been lexicalized in the term *didi-gwarí* 'weather-top', an important cultural concept meaning 'sky, heaven' or 'God'. And the only known possible lexical meaning for the commonly used relational noun *akɔ́-* 'inside' comes from Gumuz word *-(á)k'w(á)* 'head'.

In principle, the terms listed in (94) are productive, but in practice, many of them have set up into lexicalized expressions like the following. Herein lies the main source—apart from borrowing—of Ik lexical nominal enrichment:

(95)   *Relational compounds*

arágwané-éku-	'full moon'
bubu-akɔ-	'inner abdomen'
dakú-sɔ́kɔ-	'tree root'
dáŋá-aka-	'opening to white-ant hill'
doɗi-eku-	'cervix'
dómó-ɔza-	'bottom of a pot'
fátára-bakutsí-	'front side of the vertical ridge'
fetí-éku-	'east'
gido-ɔka-	'sky'
iwótsí-ɔza-	'bottom of a mortar'
kaiɗeí-áƙátí-	'pumpkin stem'
kuɓa-gwaríi-	'hilltop'
kwará-dɛa-	'base of a mountain'
kwará-gwaríi-	'moutaintop'
kwaré-éku-	'saddle between two mountain peaks'
óɗe-eku-	'river ford'
simá-áƙátí-	'knot'
taɓá-dɛa-	'base of a rock'
tóde-eku-	'word'
ts'aɗí-áka-	'flame'
ts'aɗí-éku-	'fireplace, nuclear family'
wídze-eku-	'dusk, late evening'

4.4   Kinship terms

Kinship terms in Ik are affected by the structure of kinship relations. For example, Ik kinship relations are patrilocal: New wives are brought in from outside a man's clan to his parents' home area. They are also patrilineal: All one's relatives are understood in relation to one's father and paternal uncles. For instance, the term *abáŋi-* meaning 'my father' applies not only to one's birth father but also to any of the his brothers. So one may essentially have more than one 'father'. But the brother of one's birth mother is referred to as *momóo-* or 'uncle' rather than 'father'.

A second feature of the Ik kinship terminology is that it is based on reference to person (i.e. 1ˢᵗ, 2ⁿᵈ, and 3ʳᵈ person). The term needed to refer to a particular relative depends on whether it is the relative of the speaker, the addressee, or a third-person non-speech-act participant. For example, if the speaker names her father, she will call him *abáŋ* 'my father', but if she names her addressee's father, she will say *bábo* 'your father'. And if she refers to someone else's father, she will say *babatᵃ* 'his/her father'.

Morphologically, Ik kinship terms exhibit a couple of notable features. First, many of them are made up of compounds. They may join two nouns, as in *momó-cekᵃ* 'maternal aunt (lit. 'uncle-wife')' or *totó-im* 'maternal cousin (lit. 'maternal aunt's child')'. Others may join a pronoun and a noun, as in *ŋgó-ím* 'younger sibling (lit. 'our child')' or *bi-emetá* 'your in-law'. Secondly, in the Ik person-based kinship reference system, one can find traces of archaic person-marking morphology that has been completely lost in the rest of the grammar. Compare the following forms:

(96)   *Archaic possessive suffixes on kinship terms*

Person	'father'	'mother'	'grandmother'
1sg	abáŋi-	yáŋi-	dadáŋi-
2sg	báboo-	ŋóo-	dádoo-
3sg	babatí-	ŋwaatí-	dadatí-

That the forms in (96) retain old possessive suffixes is most clearly seen in the words for 'father' and 'grandmother'. These suffixes are *-áŋi- for first person, *-(o)o- for second, and *-atí- for third person (which may come from an old singulative; see (28) above)—all singular. With this in mind, these kinship terms can be re-analyzed as follows in order to highlight their historical morphology (which has now been lexicalized):

(97)   *Archaic possessive suffixes in analysis*

Person	'father'	'mother'	'grandmother'
1SG	(*b)ab-áŋi-	y-áŋi-	dad-áŋi-
2SG	báb-oo-	ŋó-o-	dád-oo-
3SG	bab-atí-	ŋw-aatí-	dad-atí-

The old root *bab*, meaning 'father', presumably lost its initial /b/ in the first-person reference at some point in time. In the case of 'mother', it seems that based on the second and third-person reference, the old root is *ŋo*. For second person, the possessive suffix -(o)o- is shortened, possibly due to Ik's dislike for sequences of three vowels. And for third person, the root desyllabifies and causes compensatory lengthening on the suffix. When it comes to the first person, it is not clear how *ŋo* could be related to *y*.

The old possessive prefixes shown in (96) are found elsewhere in the kinship terminology but in an even more eroded form. Often the second and third-person suffixes are the only ones remaining:

(98)   *Archaic possessive suffixes on other kinship terms*

Person	'brother'	'sister'	'grandfather'
1SG	(ɛdɛ́ɛ-)	ye-áa-	bob-áa-
2SG	lé-ó-	yá-óo-	bób-oo
3SG	le-atí	ye-atí	bob-atí-

Before the loss of lateral fricatives in Ik, the root for 'brother' used to be *ɫɪ- (Heine & König 1996:17). And if there ever was a proto-form *le-áŋi- for 'my brother', it has been replaced by the unrelated ɛdɛ́ɛ-. Elsewhere in (98), the first-person suffix -áŋi- has lost its velar nasal, giving rise to the variant -áa.

The following table presents a set of kinship terms including the ones shown in (96) and (98). These terms are from the point of view of *Ego* or 'I'—that is, the first person. Second and third-person forms can be extrapolated from these. Moreover, they are all listed in the lexicon in Appendix B. To change person, either the archaic (frozen) possessive suffixes can be changed (as when going from *bobá* 'my grandfather' to *bóbo* 'your grandfather') or the N₁ pronouns in compounds (as in *ɲci-cekᵃ* 'my wife' to *ntsí-cékᵃ* 'his wife'). The literal meaning of compounded terms is also given when known:

(99)   *Ik kinship terms from Ego's (1SG) point-of-view*

Term	Natural sense	Literal sense
abáŋi-	'my father'	
bobáa-	'my grandfather, ancestor'	
dadáŋi-	'my grandmother'	
ɲci-emetáa-	'my parent-in-law'	I-?
ɛdɛ́ɛ-	1) 'my older brother	
	2) 'my older paternal cousin'	
ɛdɛ́-ceki-	'my older brother's wife'	brother-wife
imá-céki-	'my son's wife'	child-wife
momóo-	1) 'my maternal uncle'	
	2) 'son of my sister'	
momó-ceki-	'my maternal uncle's wife'	uncle-wife
momó-ima-	'my maternal cousin'	uncle-child
ɲci-ɣání-	1) 'my husband's other wife'	
	2) 'my husband's brother's wife'	
ɲci-namúí-	1) 'my husband's sister'	I-?
	2) 'my brother's wife'	
ɲc-ugwámá-	'my sibling-in-law'	I-?

ɲci-ceki-	'my wife'	I-woman
ɲci-ɛakwa-	'my husband	I-man
ɲci-ima-	'my child'	I-child
ŋgó-íma-	'my younger sibling'	we-child
tátaa-	'my paternal aunt'	
táta-ɛakwa-	'my paternal aunt's husband'	aunt-man
táta-ima-	'my paternal aunt's child'	aunt-child
totóo-	'my maternal aunt	
totó-ɛakwa-	'my maternal aunt's husband'	aunt-man
totó-íma-	'my maternal aunt's child'	aunt-child
yáŋ-	'my mother'	
yeáa-	'my sister'	

Ik kinship terms function grammatically as any other noun in the language. They inflect for all eight cases and can be modified and pluralized to a limited extent. A variety of pluralization strategies are used for kinship terms, depending on their morphological structure, semantics, etc., as in:

(100)   *Pluralization strategies for kinship terms*

Strategy	Singular		Plural
Plurative I	namúí	'brother's wife'	namú-át-ikw[a]
Possessive Plurative	abáŋ	'my father'	abáŋ-ín
Pluralize N$_2$	ɲci-im	'my child'	ɲci-wik[a]

Finally, when one wants to express the relation of a relative to more than one person (e.g. 1PL or 2PL)—and if the relevant term is one from above that takes the archaic possessive suffixes—then the 3SG form of the term is used. This is observed, for example, in *ɲjíní-leat[a]* 'our (inc.) brother' and *biti-babát[a]* 'your (pl.) father'. The reason for this has yet to be discovered.

4.5   Proper Nouns

In addition to all the common nouns that have been the major topic of this chapter so far, Ik also has a full range of proper nouns. These include names for specific people, tribes, and places—entities in the world that have a unique reference. Proper nouns as names are discussed in the following sections: §4.5.1 on onomastics (people names), §4.5.2 on ethnonyms (tribal names), and §4.5.3 on toponyms (place names).

For the most part, Ik proper nouns function grammatically just like common nouns. They can function as a clause's core or peripheral argument, and they inflect for all of the eight cases. But they also differ grammatically from common nouns. For example, proper names for people cannot be pluralized:

(101)   ŋorokᵃ   **ŋórókikᵃ

        Ngorok   **Ngoroks

Due to the fact that Ik relative clauses are only the restrictive type, proper nouns can only be modified by relative clauses if it is very clear from the context that two or more entities/persons with the same name are involved:

(102)   *Nteenoo Ŋorokui?*   *Ŋoroka na zikib.*

        ńté- énɔ́-ɔ   ŋorokwí-∅   ŋorok-a = na   zikíb-∅

        which-PSSM-COP ŋorok-GEN   ŋorok-NOM = REL.SG   tall-REAL

        Which Ngorok?   The Ngorok who is tall.

And though they can be modified by a possessor in the genitive case, the possessum and possessor must be separated by a relative pronoun:

(103)   *Ŋoroka na ɲci.*   ** *Ŋoroka ɲci.*

        ŋorok-a = na   ɲci-∅   **ŋorok-a   ɲci-∅

        ŋorok-NOM = REL.SG   I-GEN   **ŋorok-NOM   I-GEN

        The Ngorok who is mine.   **My Ngorok.

4.5.1 Onomastics

Most Ik people nowadays have three or four names each. They will have an
Ik name, a Christian ('baptismal') name, and a nickname called *éda awáᵉ*
'house name'. In addition, most men have a *rágw-edᵃ* 'bull name' that goes
along with their bull songs. Beyond this, many people seem to have several
secret names that only their friends or in-members of the community know.

When filling out official forms or introducing themselves to outsiders, Ik
people typically give two names: 1) an Ik name, and 2) a Christian name.
The Ik names are the main topic of this section. Christian names are taken
at birth or at baptism in the Roman Catholic or Anglican churches. They
include names like Philip, Daniel, Peter, Simon, and Hillary for boys and
men, and Cecilia, Maria, Esther, Rose, and Veronica for girls and women.

Bull names are totems chosen by young men for a bull whose color patterns
they admire. This cultural practice is in line with that of the Teso-Turkana
and may have been borrowed from them. Though the Ik no longer keep
livestock, men still take bull names and sing their bull songs. Bull names
usually consist of the Teso-Turkana word *apá* 'father' plus one or more
words describing the color and patterns of a particular bull. Most bull
names, even for the Ik, are actually Teso-Turkana names, like *Apá Lɔpusɩkɩra*
'the father of the striped bull' and *Apá Lokiryon* 'the father of the black bull'.
A few other bull-names heard among the Ik are listed here below. For more
on this topic, see Dimmendaal (1983:300-302).

(104)   *Some Ik (Teso-Turkana) bull-names*

Apá Kapélíɓokᵒ	Apá Lolúkᵘ
Apá Komólíɲaŋ	Apá Lomarʋkɔ
Apá Lɔkamʋtɔ	Apá Lomerí
Apá Lokwáŋ	Apá Lɔɔŋɔ́r

Besides bull names, many other Ik names are Teso-Turkana in origin. This is evident from the Teso-Turkana gender prefixes *na-* for feminine gender and *lo-* for masculine (see Dimmendaal 1983:215), which are not productive morphemes in present-day Ik (see also §4.1.4). These names are formed with the prefix plus some feature in the environment that indicates what time of year or during what event the person bearing the name was born. For example, Lokiru (*lo+akiru* 'rain') was born during the rainy season. (105) provides a sampling of Ik people names with Teso-Turkana origins:

(105)   *Some Ik (Teso-Turkana) personal names*

Masculine	Root meaning	Feminine	Root meaning
Locápʊ-	'Weeding'	Nákíruu-	'Rain'
Locómo-	'Baboon'	Nakɔŋú-	'Eye'
Lokwaŋá-	'White'	Namɔ́ɪ-	'Enemies'
Lolému-	'Harvest'	Námɔŋɔ́-	'Ox'
Lómúria-	'Star Grass'	Náŋólii-	'White Patch
Loɲáa-	'Grass'	Nápíyoo-	'Defeat'
Lopéyókó-	'Guest'	Naróto-	'Road'

A few other Ik names appear with the Teso-Turkana 'associative linker' *ka-* (Dimmendaal 1983:302), for example, *Kalɪmapʊ́sɪ-* and *Kalɔyáŋɪ-*. And still others are Teso-Turkana parallels but have distinctively Ik phonology. For example, the phoneme /tʃ/ in Teso-Turkana names (written as <ch>) usually (but not obligatorily) appears as /ts/ in corresponding Ik names:

(106)   *Teso-Turkana names with adapted phonology*

Teso-Turkana	Ik
Achok	Atsóko-/Acóko-
Machu	Matsúu-/Macúu-
Nachem	Natsíámu-/Nacíámu-
Chila	Tsɪláa-/Cɪláa-

Finally, the following smattering of Ik people names contains some with Teso-Turkana parallels and some with unknown origins:

(107)   *Some other Ik personal names*

Aríkóo-	Ilúkɔ́lɪ-	Maarʊkú-	Pʊlʊkɔ́lɪ-
Cegemú-	Kinimée-	Moɗîŋí-	Saŋaɲí-
Dakáɪ-	Kocíi-	Ɲakaleesí-	Sírɛ́ɛ-
Erupeé-	Kʊsémʊ-	Ɲɛlɛtsaá-	Tekóo-
Gutíi-	Lemúu-	Peléní-	Títoo-

4.5.2 Ethnonyms

The Ik language does not have a word that means 'tribe' specifically, except now for *ɲákaɓɪláa-* which was borrowed from Swahili *kabila* 'tribe'. Other words for this domain include *asaka-* 'clan' (also 'door') and *roɓa-icíká-* 'kinds of people' or 'various peoples'. This lack of a generic word for 'tribe' is made up for by a versatile system of tribal names (ethnonyms).

Ik uses three morphological strategies for forming ethnonyms: 1) the Ik way, 2) the Teso-Turkana way, and 3) a hybrid Ik/Teso-Turkana way. The genuinely Ik way of making ethnonyms is to take a word characteristic of a certain ethnic group and make an agentive compound out of it.

So for instance, the Jie, a Karimojong sub-tribe to the southeast of the Ik, are called the *Fetí-íkᵃ* because they are from the East, where the sun comes up (*fetí-* means 'sun' and *fetí-éku-* 'sun-eye' means 'east'). The Turkana, the tribe to the northeast of the Ik are called the *Pakó-íkᵃ* after *pakó-* 'cave' probably because the word *eturkan* means 'cave' in the Turkana language. Lastly, the Napore, who live in the mountains west of the Ik, are called the *Tɔbɔŋɔ́-íkᵃ* after *tɔbɔŋɔ́ -* 'maize mush' because of all the food they have:

(108)   *Ik agentive compound ethnonyms*

Fetí-áma-	'Jie person'	sun-person
Fetí-ícé-	'Jie people'	sun-people
Icé-áma-	'Ik person'	Ik-person
Icé-	'Ik people'	Ik-people
Pakó-áma-	'Turkana person'	cave-person
Pakó-ícé-	'Turkana people'	cave-people
Tɔbɔŋɔ́-áma-	'Napore person'	maize mush-person
Tɔbɔŋɔ́-ícé-	'Napore people'	maize mush-people

A second way Ik has created ethnonyms is to borrow them directly from Teso-Turkana. These ethnonyms retain the plural grammatical gender prefix *ŋi-* that is a productive morphological marker in Teso-Turkana (but is no longer in Ik, if it ever was; see §4.1.4), as in the following:

(109)   *Ik ethnonyms with a Teso-Turkana plural gender prefix*

Ŋíɗiŋaá-	'Didinga'
Ŋímaɗíi-	'Ma'di'
Ŋítépesí-	'Tepeth'
Ŋíɓɔ́kɔraá-	'Bokora'

The third way Ik has formed ethnonyms is to combine the Ik use of agentive compound with the Teso-Turkana plural forms, as in:

(110)   *Ik agentive ethnonyms with a Teso-Turkana plural gender prefix*

Ŋíjaluwói-icé-	'Luo people'
Ŋíkátsolí-ícé-	'Acholi people'
Ŋímeniŋí-ícé-	'Mening people'
Ŋimólói-icé-	'Elmolo people'

4.5.3 Toponyms

Ik place names (toponyms) can be divided up between those that have Teso-Turkana origins and those that have an Ik origin. Those borrowed from Teso-Turkana are known by their lexicalized locative prefixes (see §4.1.4). Many original Ik place names are formed by compounds (see §4.3), while others consist of a single word or simple phrase. These place names may refer to areas, rivers, mountains, or other geographical features.

Most toponyms borrowed into Ik from Teso-Turkana languages consist of the lexicalized Teso-Turkana locative prefixes or associative marker plus a noun or verb that characterizes the named place in some way. For example, a volcanic plug in Kaabong District called *Locom*, 'Baboon Place', is made up of the masculine/neuter locative prefix *lo-* plus the noun root *-com* meaning 'baboon'. (111) presents a sampling of this type of Ik place name:

(111) *Ik toponyms with Teso-Turkana origins*

Masculine/neuter	Feminine	Associative
Locótoó-	Náápɔŋɔ́-	Kaikóɓaa-
Loodói-	Nacákúnɛtɪ-	Kámíóno-
Loúsúnaa-	Nakalelée-	Kanaróo-
Lɔcáráƙwatí-	Naɔyakíŋɔ́lɪ-	Kapalúu-
Lɔkɪtɔ́ɪ-	Narúkyeɲí-	Kasilee-

Mountain names borrowed from Teso-Turkana are often formed with the root *-moru* 'mountain/rock' used in a compound with another root, as in:

(112) *Ik mountain names from Teso-Turkana*

Moru-aŋákinéi-	'Goat Mountain'
Morú-atapá-	'Bread Mountain'
Morú-érisá-	'Leopard Mountain'
Moru-koyaní-	'Tall Mountain'
Morú-ɲaɲá-	'Revenge Mountain'

The Ik use Teso-Turkana place names for several possible reasons. First, some places, like Kaabong or Kasile, are far enough outside the Ik homeland not to warrant a name other than the Teso-Turkana name. Second, while interacting with Teso-Turkana neighbours, perhaps the Ik found it easier to use the more widely known toponyms. And third, though this would contradict some versions of Ik history in the literature, the Ik may have settled in their current homeland after the Teso-Turkana tribes had arrived and given names to the landscape (see Schrock 2009).

A fair number of Ik place names are made of compounds. For some, the compound N$_2$ is a general locative noun like *aká-* 'mouth', *akɔ́-* 'inside', *awá-* 'place/home', or *kíɟá-* 'land', as in:

(113)   *Ik compound toponyms with general locative N$_2$*

Borotsa-aka-	'*Borotsa* Mouth'
Icé-kíɟa-	'Ik Land'
Isókói-akɔ-	'In the Euphorbia'
Lɛra-akɔ-	'In the White-Thorn Acacia'
Lotóƙíka-awa-	'Rain-Shelter Place'
Oŋori-awa-	'Elephant Place'
Tsutsuka-awa-	'Tanning Place'

Other place names consisting of compounds involve an N$_2$ with more specific locative reference, as in:

(114)   *Ik compound toponyms with more specific N$_2$*

Kakútá-kuríi-	'*Kakuta* Shade'
Kwarika-bubúíka-	'Lower Mountainsides'
Kurá-hoó-	'*Kura* House'
Mileti-sabáa-	'*Mileti* River'
Órí-ɓoo-	'Ori's Escarpment'
Séítíní-kokóró-	'White Quartz Ridge'
Tiritiri-kwáɪ-	'*Tiritiri* Edge'

And still other places names consist of compounds that join two non-locative nouns, such as the ones in (115). Not all the meanings are known:

(115)   *Other Ik compound toponymns*

Dumáná-mériʃi-	'Spotted *Duman'*
Dúné-morókú-	'*Dune* Throat'
Kae-híƙɔ́ɔ-	'Tortoise Chameleon'
Ɲɛra-dzoga-	'Girls Tree (sp.)'
Turkware-ekú-	'Turkwara Eye'

Some place names have stories associated with them, for example, the name *Takani-ƙulɛ́ɛ-* from the verb *takán-* 'be visible' and *ƙulɛ́ɛ-* 'elbow'. The story goes that at this place, an old woman tried to hide from enemies who were attacking her neighbourhood. But at the place where she hid, her elbow was visible, and the enemies spotted her because of that.

The Ik equivalent of the Teso-Turkana mountain names beginning with the root *-moru* are formed with the Ik roots *gwasá-* 'rock', *kokoró-* 'ridge', *kuɓa-* 'hill' or *kwará-* 'mountain'. Such names include the following:

(116)   *Ik mountain names*

Irika-kokoró-	'*Irika* Ridge'
Kɔpa-kwara-	'Vulture Mountain'
Mɔƙɔrɔ́-gwasa-	'Rock-Pool Stone'
Palúu-kuɓa-	'Palu's Hill'
Segerí-kwára-	'Tree (sp.) Mountain'
Séítíní-kokóró-	'White Quartz Ridge'
Taɓá-kókóró-	'Boulder Ridge'

Finally, many Ik place names are simply single words. For some of them, their meanings are still recoverable, while for others, they are not:

(117) *Single-word Ik toponymns*

Aŋatárɪ-	'Ang'atar'
Burukáí-	'Kenya'
Cerúbe-	'Cherub'
Cucueika-	'Damp Chills'
Dódofa-	'Dodof'
Ɗasoƙo-	'Uganda (lit. 'flatness')'
Ɗómoko-	'D'omok'
Galatsɪ-	'Galats'
Ísɛ́ɛ-	'Ise'
Íwɔlɔ́ɔ-	'Iwolo'
Kɛ́tɛ́la-	'Ketel'
Laatsoó-	'Laatso'
Muƙei-	'Muk'e'
Nofo-	'Nof'
Oŋóríza-	'Ong'oriz'
Puɗápúɗa-	'Pud'apud''
Sɛƙɛtɛ́-	'Seket'
Siƙák\u1d49	'In-the-Dew'
Tsígaka-	'Tsigak'
Wúsé-	'Wus'

5 Pronouns

The term 'pronoun' is used here rather loosely. This chapter describes words and affixes that truly represent missing or implied nouns. But it also includes certain nouns and affixes that have meanings like the pronouns in other languages (e.g. English). In some cases, it is not easy to tell whether a particular item is a grammatical word with a pronominal function or a full lexical noun with a pronoun-like meaning. For example, *saí-* means 'some more' or 'some other', although it inflects fully for case and can take a nominal complement as in *saa róɓaᵉ* 'some other people'. So is it a noun or a pronoun? The goal of this chapter is to describe anything identified as either a pronoun or noun with pronominal meanings or functions.

Ik pronominals comprise a) independent words, b) words found only in compounds, c) clitics, and d) suffixes. All pronominals inflect for case, except for relative pronouns, clitics and verbal suffixes. Some of the pronominals are invariable in terms of grammatical number, while others have suppletive plurals or can be pluralized with one of the language's pluratives. When it comes to personal pronouns, Ik is a pro-drop language, requiring minimally only bound pronominal subject-agreement suffixes.

5.1   Personal pronouns

The Ik personal pronominal system has a 1/2/3 personal reference. Each grammatical person can be either singular or plural. Like the neighboring Teso-Turkana languages, Ik makes a distinction between first person plural exclusive (excluding the addressee) and first person plural inclusive (including the addressee). But unlike in the Teso-Turkana languages, grammatical gender is not reflected in any part of the Ik pronominal system. Lastly, Ik has both free personal pronouns and bound pronominal suffixes on verbs. Both types are described in the following two sections.

5.1.1 Free personal pronouns

The Ik free personal pronouns are free grammatical words. The hyphenated forms in (1) signify not prefixation but rather roots in need of case suffixes:

(1)   *Ik free personal pronouns*

1SG	ɲci-
2SG	bi-
3SG	ntsí-
1PL.EXC	ŋgó-
1PL.INC	ɲjíní-
2PL	biti-
3PL	ńtí-

Case suffixation produces the inflectional variety shown in the next table. (2) presents a non-final form case paradigm for all seven free personal pronouns. The nominative and instrumental case forms for 1SG reflect the morpho-phonological de-affrication described in §2.5.2. And in the ablative and copulative cases, there is some variation in the degree to which the pronoun-final /i/ assimilates to the case suffix consisting of /o/ (§2.5.4):

(2)   *Case paradigm for Ik free personal pronouns*

	1SG	2SG	3SG	1PL.EXC	1PL.INC	2PL	3PL
OBL	ɲci	bi	ntsi	ŋgo	ɲjíni	biti	ńti
NOM	ŋ́k-a	bi-a	nts-a	ŋgw-a	ɲjín-a	bit-a	ńt-a
INS	ŋ́k-o	bu-o	nts-o	ŋg-o	ɲjín-o	bit-o	ńt-o
ABL	ɲcu-o	bu-o	ntsú-ó	ŋgó-ó	ɲjíní-o	bitu-o	ńtú-o
GEN	ɲci-e	bi-e	ntsí-é	ŋgó-é	ɲjíní-e	biti-e	ńtí-e
ACC	ɲci-a	bi-a	ntsí-á	ŋgó-á	ɲjíní-a	biti-a	ńtí-a
DAT	ɲci-e	bi-e	ntsí-é	ŋgó-é	ɲjíní-e	biti-e	ńtí-e
COP	ɲcu-o	bu-o	ntsú-ó	ŋgó-ó	ɲjíní-o	bitu-o	ńtú-o

In terms of internal reconstruction, there appears to be a morphological relationship between the first person free pronouns: the singular *ńci-* 'I', and the plural *ŋgó-* and *ɲjíní-* 'we'. It looks like the 1PL.INC *ɲjíní-* is a pluralization of the first person singular *ńci-*. Recall from §4.2.5 that the possessive plurative {-ɪnɪ} may be used to pluralize a possessed or associated person or object. In light of this, the 1PL.INC *ɲjíní-* can be analyzed as *ɲc + ɪnɪ-* → *ɲc-íní-* → *ɲjíní-*. The change in voicing from /c/ to /j/ is seen in modern Ik in another pronominal form: *ɲj-éní-* 'mine', where *-éní* is an impersonal possessum marker (§5.2). Semantically, the first person plural inclusive pronoun may have grammaticalized from a word meaning something like 'my Xs' or 'those associated with me', i.e., including you the addressee(s).

Second, there also seems to be a morphological relationship between the first person plural exclusive *ŋgó-* and both *ńci-* and *ɲjíní-*. While the link between *ńci-* and *ɲjíní-* hinges on the voicing alternation /c/~/j/, a link between *ɲjíní-* and *ŋgó-* is suggested by the de-affrication described in §2.5.2. In short, affricates tend to surface as stops before the vowels /a/ or /ɔ, o/, and /j/~/g/ is a well-attested example. So the pronoun *ɲjíní-* could alternatively be a pluralization of *ŋgó-*, where *ɲj-* is the underlying morpheme, hardened to *ŋg-* before /o/. So although the evolutionary direction taken by these three first-person pronouns cannot yet be determined, it seems that a proto-morpheme *ɲj/ɲc/ŋg* underlies them all.

Then, in terms of areal and possibly genetic parallels, the 1SG pronoun *ńci-* recalls the 1SG possessive *cú* of Dhaasanac (Tosco 2001:64), and in its nominative form (*ŋ́k-*) the Eastern Semitic *anaku* and East Cushitic *ani/anu*. Tucker even suggested a link between Ik pronouns and 'Erythraic', using Middle Egyptian as a reference point (1967b:675). The Ik 1PL.EXC *ŋgó-* closely resembles the 1PL.INC *ŋwɔní* of Turkana (Dimmendaal 1983:207). Although these two pronouns differ in clusivity, their relationship looks promising. Otherwise, the Ik free pronouns most closely resemble those of the other Kuliak languages, as shown below (in comparison with Turkana):

(3)   *Kuliak free personal pronouns*

		Carlin 1993	Heine 1975a	Dimm. 1983
	Ik	So	Nyang'í	Turkana
1SG	ɲci-	aya	ay	áyɔ́ŋ
2SG	bi-	bia	bi	íyóŋ
3SG	ntsí-	ica	ikiet	ŋesí
1PL.EXC	ŋgó-	isia	mis	sʋá
1PL.INC	ɲjíní-	inia	gin	ŋwɔní
2PL	biti-	bita	biyô	eesí
3PL	ńtí-	itia	ít	kecí

Isomorphy among Kuliak free pronouns is indicated with encircling in (3). The paradigm shows significant unity among the Kuliak languages, but some marked influence from Teso-Turkana, particularly in 1SG and 1PL.EXC.

Syntactically, the free personal personal pronouns behave like full nouns. Their ability to inflect for case allows them to replace any noun operating as any clausal argument. As shown below, they can even be modified by demonstratives (3) and relative clauses (4):

(3)   *Kamie njinie nii,...*
       ƙám-í-e   ɲjíní-e=nií
       like-3SG-SIML   we.INC-GEN=DEM.PL
       Like we here (for example)…

(4)   *Bita ni muɗukanaakit,...*
       bit-a=ni   múɗúk-án-aak-ít-ᵃ
       you.PL-NOM=REL.PL   blind-STAT-DISTR-2PL-REAL
       You who are blind,...

Ik is a pro-drop language, so the free personal pronouns are not required if their referent is a subject or object. They can be used in addition to the pronominal subject-agreement suffixes if more emphasis is needed.

5.1.2 Personal possessive pronouns

Ik has no other personal possessive pronouns than those presented in (1). Possession is expressed in two ways through those personal pronouns: 1) The first way is to mark possession by putting the pronoun (PRO) in the genitive case as an NP modifier, following the possessum NP head. 2) The second way is to put the pronoun in the oblique case as the first element in a possessive compound. Both ways are illustrated below. No semantic difference is known to exist between the two, though pragmatic, discursive or rhythmic preferences may lead a speaker to chose one over the other.

(5)   *Pronominal possessive strategies*

#1	#2	
OX PRO-GEN	PRO[OBL]-ox	
rágwa ɲci-ᵉ	ɲ́ci-ragwᵃ	'my ox'
rágwa bi-ᵉ	bi-rágwᵃ	'your (sg.) ox'
rágwa ntsí-ᵉ	ntsí-ragwᵃ	'his/her ox'
rágwa ŋgó-ᵉ	ŋgó-rágwᵃ	'our (exc.) ox'
rágwa ɲjíní-ᵉ	ɲjíní-ragwᵃ	'our (inc.) ox'
rágwa biti-ᵉ	biti-ragwᵃ	'your (pl.)'
rágwa ń́tí-ᵉ	ń́tí-ragwᵃ	'their ox'

5.1.3 Emphatic pronominal compound

An emphatic pronominal compound can be formed by combining any of the personal pronouns with the words *nébu-* 'body' or *nébitíní-* 'bodies'. Such compounds draw special emphasis to the person referenced by the pronoun. Although these compounds are glossed in English as '-self/selves', they do not have a reflexive meaning. Reflexivity in Ik is expressed by the pronoun *así-* which is covered below in §5.7. The paradigm of emphatic pronominal compounds for all person and numbers is presented in (6):

(6)   *Emphatic pronominal compounds*

ɲ́ci-nebu-	'myself'
bi-nébu-	'yourself'
ntsí-nébu-	'his/herself'
ŋgó-néb-itíní-	'ourselves (EXC)'
ɲjíní-neb-itíní-	'ourselves (INC)'
biti-neb-itíní-	'yourselves'
ńtí-neb-itíní-	'themselves'

In the following example, the Emphatic compound *ɲ́ci-neb° * 'with my body' emphasizes the fact that it is 'I' who am going, not you, or anyone else. The context may be that the addressee or someone else had refused to go:

(7)   *Keesia ncineb.*

ƙe-es-í-á   ɲ́ci-neb-°

go-INT-1SG-REAL I[OBL]-body-INS

I will go myself (with my own body)!

Although usually formed with personal pronouns, emphatic compounds may also involve full nouns. In the following example, the compound *roɓa-nebitíní* 'people themselves (people-bodies)' adds a certain degree of finality and/or concreteness to the fact of people dying:

(8)   *Naƙwaa riyee nda roɓanebitini ts'eatik.*

naƙwa-a   rié-é   ńda   roɓa-neb-itíní   ts'é-áti-kᵉ

even-NOM   goats-GEN   and   people-body-PL[OBL]   die[PL]-3PL-SIML

Even goats…and people themselves dying.

5.1.4 Bound personal pronouns

The Ik bound personal pronouns are verbal suffixes. For this reason, they are also treated under §7.4, where their verbal properties are discussed. They have the same person and number distinctions as their free

counterparts. They are viewed as suffixes because 1) they cannot stand alone as a word, and 2) they can be preceded or followed by other verbal suffixes (unlike most clitics). Their grammatical function is to cross-reference the subject of the clause. (9) presents the Ik bound personal pronouns in the unmarked [-ATR] and marked [+ATR] allomorphs:

(8)   *Ik bound pronominal suffixes*

	[-ATR]	[+ATR]
1SG	-íí	-íí
2SG	-ídɪ	-ídi
3SG	-ɪ	-i
1PL.EXC	-ímí	-ímí
1PL.INC	-ísínɪ	-ísíni
2PL	-ítí	-ítí
3PL	-áti	—

A few comments are in order for the forms in (8). First, the 2SG pronominal suffix {-ídɪ} has the tone melody HL due to the presence of the depressor consonant /d/. Depending on the verb stem it attaches to, it can surfaces as LL but never as HH. Along the same lines, the 3PL suffix {-áti-} also has a HL tone melody. It can surface as LL but never as HH. Although it does not contain a depressor consonant currently, it seems quite likely that the /t/ in {-áti-} has developed historically from /d/ as in *-ádi*. This cannot be proven, but such a development would help explain the HL tone melody. The 3PL suffix is also dominantly [+ATR] as described back in §3.1.3.

As is common cross-linguistically, the Ik bound pronominal suffixes are probably eroded forms of (at least some of) the free forms shown in (1). The devolution of *ɲci-* to {-íí}, for example, may have involved the reinterpretation of /ɲ/ as the high front vowel /i/ leading to [íci]. (In this vein, compare the Ik free form *ntsí-* 'he/she/it' to the So oblique 3SG pronominal *ici-* (Carlin 1993:79)). The loss of /c/ from *ɲci-* could then have happened as a result of a process similar to the '/c/ to [i]' variation found in

So (McKinney 2009). This would have then created a form like [íi] which then could have become [-íí]. The change in [ATR] in this speculative scenario, if true, would have to be explained by other means.

Secondly, the correlation between the 2PL free form *biti-* and the bound form {-ítí} is suggestive, apart from the problem of tone difference. If the bound pronoun is an eroded remnant of the free form, then this would reflect an historical '/b/-drop' sound change (*biti → -iti*) that must have affect the 2SG form as well (*bi(d)i → -idi*). The latter postulation, of course, requires positing a lost /d/ as well as a lost /b/ for the 2SG pronoun. Historical /b/-dropping is elsewhere attested among archaic kinship terms (see §4.4.).

The current shape of the 1PL.EXC pronominal {-ímí} bears noteworthy resemblance to the Nyang'ía 1PL.EXC pronoun *mis* (Heine 1975a), the loss of /s/ notwithstanding. And in the case of the Ik 1PL.INC pronominal {-ísínɪ}, a simple change of /j/ to /s/ could have produced it from the free form *ɲjíní-* (with changes in tone and [ATR]). The plausability of these proposals will have to be judged as further comparative evidence comes to light.

5.2   Impersonal possessum pronoun

In addition to the personal possessive pronouns shown above in (5), Ik also has a pronoun that expresses possession without reference to grammatical person. This impersonal possessum pronoun (PSSM) has the form *-ɛní-* (no plural). It occurs as the second element (N$_2$) of a compound, where the N$_1$ is the possessing entity. The pronoun itself is used to reference a possessum that may or may not also be explicitly mentioned, as in *bi-ɛn* 'yours' versus *bi-ɛna awá^e* 'your home'. If the possessum is explicitly mentioned, as in *bi-ɛna awá^e* 'your home', it comes after impersonal possessive compound and takes the genitive case (as in 'you-PSSM home-GEN').

In combination with a personal pronoun, the impersonal possessum is roughly equivalent in translation to the independent English possessive pronouns, like 'mine', 'yours', 'its', as in:

(9)   *Ik impersonal possessum pronoun*

ɲj-ɛ́ní-	'mine'
bi-ɛ́ní-	'yours (sg.)'
nts-ɛ́ní-	'his/hers/its'
ŋgó-ɛ́ní-	'ours (exc.)'
ɲjíní-ɛnɪ-	'ours (inc.)'
biti-ɛní-	'yours (pl.)'
ńtí-ɛnɪ-	'theirs'

The tone of *-ɛní-* changes according to the melody of the compound's N_1. But because it is in a compound, the dominant [+ATR] value of the N_1 does not spread across the morpheme boundary. The impersonal possessum is analyzed as an N_2 instead of a suffix because, as a general rule: a) It does not alter the tone of the N_1, b) it does not delete the final vowel of the N_1, and c) is it not harmonized for [ATR] by the N_1. Nevertheless, it remains somewhat of a hybrid between suffix and N_2 in that: a) It accompanies a tone change of the N_1 in the case of the 1SG (*ńci-* → *ɲj´-*) and b) it deletes the final vowel of the 1SG and 3SG N2 pronouns (*ńci-* → *ɲj´-* and *ntsí-* → *nts´-*).

The impersonal possessum pronominal also combines with full nouns, as in:

(10)   *Impersonal possessum with nouns/nominalized verbs*

aɗ-oni-ɛní-	the third time (lit. 'to be three's)
cɪkámá-ɛ́nɪ-	the womens'
icé-ɛ́nɪ-	the Iks' (language, customs, etc.
ɲɔtɔ́-ɛ́nɪ-	the mens'
wicé-ɛ́nɪ-	the children's

5.3   Indefinite pronouns

Ik has eight indefinite pronouns, listed in (11). But most of the indefinite pronouns are bimorphemic or compounds. The first four in the table are formed on the basis of *kɔní-* 'some, another' which is related to the verb *kɔn-* 'be one'. The next three are based on *kíní-* 'some (pl.)', the plural counterpart to *kɔní-*. The last pronoun in the table (*saí-*) is the only free form apart from *kɔní-*. All these indefinite pronouns can a) be fully inflected for case, and b) some can occur with or without explicit nominal complements.

(11)   *Ik indefinite pronouns*

kɔní-	'some, another'	
kɔ́n-áí-	'somewhere'	(some-side)
kɔ́n-ɔ́ma-	'somebody (strange)'	(some-SING)
kɔ́ní-ɛ́ní-	'a, some (sg.)'	(some-PSSM)
kíní-ɛ́ní-	'some (pl.)'	(some.PL-PSSM)
kíní-mɛna-	'some (strange) issues'	(some-issues)
kíní-roɓa-	'some (strange) people'	(some-people)
saí-	'some more, some other'	

The indefinite notion of 'any' is conveyed in Ik with the invariable quantifier *muɲu*, as in *ódowa muɲ^u* 'any day'.

Four of the eight pronouns listed in (11) can occur with or without a nominal complement. These are *kɔní-*, *kɔ́ní-ɛ́ní-*, *kíní-ɛ́ní-*, and *saí-*. The other four do not take complements because, as compounds, they already contain a head and modifier (with the exception of *kɔ́n-ɔ́ma-*, which because of its morphological structure, must be analyzed as a singulative form):

(12)   *Atsaa kon.*
       ats-á-á   kɔn-∅
       come-REAL-PRF   one-NOM
       Another has come.

(13) *Atsa kona amae.*

ats-á-á	kɔn-a	ámá-ᵉ
come-REAL-PRF	one-NOM	person-GEN

Another person has come.

(14) *Beɗa koneenik.*

béɗ-á	kɔ́ní-ɛ́ní-kᵃ
want-REAL	one-PSSM-ACC

She wants some(thing).

(15) *Beɗa koneenia ƙwazae.*

béɗ-á	kɔ́ní-ɛ́ní-a	ƙwaza-ᵉ
want-REAL	one-PSSM-ACC	clothing-GEN

She wants some (piece of) clothing.

(16) *Atsaa sa.*

ats-á-á	sa-∅
come-REAL-PRF	some.others-NOM

Some others have come.

(17) *Atsaa saa roɓae.*

ats-á-á	sa-a	roɓa-ᵉ
come-REAL-PRF	some.others-NOM	people-GEN

Some other people have come.

The pronouns *kɔ́n-ɔ́ma-* 'somebody', *kíní-mɛna-* 'some issues', and *kíní-roɓa-* 'somebodies' are not equivalent in meaning to their English glosses. They denote a referent that is unknown and often malevolent—strangers and strange things. The English 'somebody' is usually rendered in Ik just as *ám* 'person' or *kɔ́né-éna ámáᵉ* 'some person'. Examples of the strangeness nuance of these indefinite pronominal compounds include the following two:

(18) *Kawa konoma riɟaa ntia, roɓa?*

kaw-a	kɔ́n-ɔ́m-a	ríɟá-a	ńtía	róɓa
cut-REAL	some-SING-NOM	forest-ACC	how	people[OBL]

Is some unknown person cutting the forest like that, folks?

This second example, taken from Text 5 in Appendix A, comes from an animal fable where a sick lion is eating the animals that go to visit him. Witnessing the carnage, a rabbit on the outside thinks to himself:

(19) *Iya kinimena itiyoosa pakwaaƙo.*

i-a	kíní-mɛn-a	itíyá-ós-á	pakó-áƙɔ-∅
be-REAL	some-issues-NOM	do-PASS-REAL	cave-inside-ABL

There are some strange things being done inside the cave.

5.4 Interrogative pronouns

Ik makes use of five interrogative ronouns that all inflect fully for case:

(20) *Ik interrogative pronouns*

isi-	'what?'
ńt-/ndaí-	'where?'
ndo-	'who?'
ńtɛ́-ɛ́ní-	'which (sg.)?'
ńtí-ɛ́ní-	'which (pl.)?'

Apart from *isi-*, these interrogative pronouns all are built on a proto-interrogative particle like **nd(V)-* or **nt(V)-*. This particle combined historically with a variety of other morphemes to produce the interrogative pronouns of today. For example, the word *ndaí-* 'where' combines **ndV-* with the nominal root *aí-* 'side'. And *ńtɛ́-ɛ́ní-* 'which (sg.)' and *ńtí-ɛ́ní-* 'which (pl.)' combine the particle with the impersonal possessum pronominal.

Two interrogative concepts are conspicuously absent from (20): 'when?' and 'why?'. As Serzisko observed (1992:200), the word translated into Ik as 'when?' (*ŋ́t-ódo-o*) is a combination of the proto-interrogative **ntV-* with the nominal root *ódou-* 'day' in the instrumental case. This is in itself a shorter version of the phrase *ŋ́té-έnɔ́ ódoue* 'on which day'. Actually, when translated into Ik, the word 'when' must be specified for the intended time span, as in 'which day?' (*ŋ́té-έnɔ́ ódoue*), 'which hour?' (*ŋ́té-έnɔ́ ɲásáatí*), etc.

As for the concept 'why?', it is expressed through the word *isi-* 'what' in the dative case (for what?) or ablative case (from what?). It is often combined with the impersonal possessum particle, as in *isi-έní-kᵉ*. When left-dislocated as in (21), *isi-* 'what' leaves a trace in the form of the dummy pronoun (DP) which marks the movement of a non-core argument. As a non-core argument, *isi-* could signify purpose (dative) or cause (ablative):

(21)   *Isio naa moo wicea kodati*

     isi-o = náa   mo-o   wicé-á   ƙɔ́ɗ-áti

     what-COP = PST1   not-SEQ:DP children-ACC   cry-3PL

     Why did the children not cry?

(22)   *Biraa kida atsa biyak. Isienik?*

     bɪra-a   kí = ɗ-a   ats-a   biá-kᵉ   isi-έní-kᵉ

     lack-REAL   DEF = one-NOM   come-REAL   outside-DAT what-PSSM-DAT

     Not a one comes back out. Why?

The normal position for these interrogative pronouns is in a left-dislocated, clause-initial slot where they take the copulative case. But they may also occur in the slot where their referent would appear. (23)-(26) exemplify this flexibility. Note once again that when a fronted pronoun presents a non-core argument, as in (24), the dummy pronoun must mark its absence:

(23)   *Isio beɗid?*
         isi-o   béɗ-íd-∅
         what-COP   want-2SG-REAL
         What do you want?

(24)   *Beɗida is?*
         béɗ-íd-a   is-∅
         want-2SG-REAL   what-NOM
         You want what?

(25)   *Ndayoo ƙeesidad?*
         ndai-ó   ƙe-es-íd-a = dᵉ
         where-COP   go-INT-2SG-REAL = DP
         Where are you going?

(26)   *Keesida ndaik?*
         ƙe-es-íd-a   ndaí-kᵉ
         go-INT-2SG-REAL where-DAT
         You are going where?

The pronouns *isi-* 'what', *ńté-ɛ́ní-* 'which (sg.)', and *ńtí-ɛ́ní-* 'which (pl.)' all can occur alone or with nominal complements, as in (27)-(30) below:

(27)   *Isiemutio iy?*
         isi-emútí-o   i-ᵃ
         what-story-COP   be-REAL
         What news is there?

(28)   *Isiicoo ɗan?*
         isi-icó-ó   ɗ-a = n
         what-AGT.PL-COP   PRO.PL-NOM = DEM.PL
         What (kind of) people are these?

(29) *Nteenoo amee ɗa?*

ńté-énɔ́-ɔ ámé-e ɗ-a

which-PSSM-COP person-GEN PRO.SG-NOM

Which person is this?

(30) *Ntienoo roɓee ɗa?*

ńtí-énɔ́-ɔ roɓé-é ɗ-a

which[PL]-PSSM-COP people-GEN PRO.PL-NOM

Which people are these?

Only *ndo-* can be pluralized and is done so as *ndo-íní-* 'who (pl.)?':

(31) *Ndoo kiɗaa?*

ndo-o kɪ=ɗá-á

who-COP DIST=PRO.SG-NOM

Who is that?

(32) *Ndoinio kiɗaa?*

ndo-íní-o ki=ɗá-á

who-COP DIST=PRO.PL-NOM

Who are those?

In the ablative case, the pronoun *ndaí-* 'where?' takes the unexpected form *nˡdɛ́ɛ́* 'from where?'. The historical changes that yielded *nˡdɛ́ɛ́* as the ablative form of *ndaí-* are not really understood. A form closer to what one would expect—*ndóó*—is instead used in the sense of 'what about', as in *ndóó ŋkᵃ* 'what about me?'. The following two sentences illustrate the suppletive form *nˡdɛ́ɛ́* compared with the normal left-dislocated form of *ndaí-* 'where?':

(33) *Atsida ndee?*

ats-íd-a nˡdɛ́ɛ́

come-2SG-REAL where.ABL

You're coming from where?

(34)   *Ndayoo atsidad?*
       ndaí-ó   ats-íd-a = dᵉ
       where-COP   come-2SG-REAL = DP
       From where are you coming?

When the question 'Where?' is asked in isolation, the interrogative pronoun *ńt-* is used instead of *ndaí-*, in its nominative case form as *ńt-á*. For example, if someone yells *ntsúó kɪɗá* 'There it is!', a questioning reply would be *ńtá* 'Where?' rather than *ndaíkᵉ* 'where:DAT?'.

5.5   Demonstrative pronouns

Ik has a suite of demonstrative pronouns based on the forms *ɗí´-* for singular and *ɗî´-* for plural. The only phonological difference between them is their [ATR] value. This is one of the rare instances in the language when contrast is made strictly with [ATR]. And based on their underlying forms, the tone melody posited for these pronouns is LH. But, high-tone anticipation changes this to HH in five out of the eight cases. Combined with a proclitic and tone changes, the demonstrative pronouns have three deictic points of reference: proximal, medial, and distal. The table in (35) presents the full case paradigm for the singular demonstrative *ɗí´-*:

(35)   *Ik singular demonstrative pronouns*

	Proximal	Medial	Distal
OBL	ɗí´	kɪ = ɗí	kɪ = ɗí´
NOM	ɗ-a´	kɪ = ɗ-á	kɪ = ɗ-a´
INS	ɗ-ɔ´	kɪ = ɗ-ɔ́	kɪ = ɗ-ɔ´
ABL	ɗɔ́-ɔ́	kɪ = ɗɔ́-ɔ́	kɪ = ɗɔ́-ɔ́
GEN	ɗέ-έ	kɪ = ɗέ-έ	kɪ = ɗέ-έ
ACC	ɗĭ-á	kɪ = ɗĭ-á	kɪ = ɗĭ-á
DAT	ɗέ-έ	kɪ = ɗέ-έ	kɪ = ɗέ-έ
COP	ɗɔ́-ɔ́	kɪ = ɗɔ́-ɔ́	kɪ = ɗɔ́-ɔ́

The trait distinguishing the medial and distal forms of *ɗí́-* is tone: Medial forms have a LH melody in the nominative, instrumental, and oblique cases, while the distal forms have LL instead. Both medial and distal forms have the singular distal demonstrative *kɛ* attached as a proclitic. In this unstressed position, the vowel /ɛ/ changed to /ɪ/. (35) also exhibits vowel assimilatory processes at work, for example *ɗɪ-ɔ́ → ɗɔ́-ɔ́* and *ɗɪ-ɛ́ → ɗɛ́-ɛ́*.

The next table presents the case paradigm for the plural demonstrative pronoun *ɗí́-* in its proximal, medial, and distal forms:

(36)   *Ik plural demonstrative pronouns*

	Proximal	Medial	Distal
NOM	ɗ-á´	ki=ɗ-á	ki=ɗ-a´
INS	ɗ-o´	ki=ɗ-ó	ki=ɗ-o´
ABL	ɗú-ó	ki=ɗú-ó	ki=ɗú-ó
GEN	ɗí-é	ki=ɗí-é	ki=ɗí-é
ACC	ɗí-á	ki=ɗí-á	ki=ɗí-á
DAT	ɗí-é	ki=ɗí-é	ki=ɗí-é
COP	ɗú-ó	ki=ɗú-ó	ki=ɗú-ó
OBL	ɗí´	ki=ɗí	ki=ɗí´

As with the singular demonstrative pronoun, the medial and distal forms of the plural *ɗí́-* are distinguished on the basis of tone alone. And they are also built off the proximal base by adding the plural distal demonstrative *ki* as a proclitic. The paradigm in (36) also shows partial vowel assimilation in the ablative and copulative cases, when *ɗɪ-ó* becomes *ɗú-ó* for both.

The demonstrative pronouns can stand alone, without determiners, as in:

(37)   *J'eja bee kiɗa ɟii.*

ɟeɟ-á=ꞌbee   kɪ=ɗ-á=ɟɪɪ

stay-REAL=PST2   MED=one-NOM=also

That one also stayed yesterday.

(38) *Epuƙoituo kiɗio.*

ep-úƙó-itu-o   ki = ɗí-ó

sleep-COMP-2PL-SEQ   DIST/MED = ones-ABL

And then you sleep in those (ones, i.e. 'huts').

But they are often also modified by various spatial determiners such as the singular proximal demonstrative =*na* and plural distal =*ki* (§8.2.1):

(39) *Xeɓa ɗoo na.*

ʃɛɓ-a   ɗɔ́-ɔ́ = na

fear-REAL   one-ABL = DEM.SG

She's afraid of this (one).

(40) *Beɗia kiɗa ki.*

béɗ-í-a   ki = ɗ-a = ki

want-1SG-REAL   DIST = ones-NOM = DIST.DEM.PL

I want those (ones).

If the demonstrative pronouns are modified by a relative clause, the usual relative pronouns (see §5.4) are not used. This may be due to a prohibition against two pronouns occurring one after another, for example:

(41) *Mita ɗi zea aƙwedoo ngoe.*

mɪt-á   ɗɪ   ze-a   áƙw-ɛ́dɔ-ɔ   ŋgó-ᵉ

be-REAL one[OBL]   big-REAL   inside-PSSR.SG-ABL   we.EXC-GEN

It's the important one from among us.

Normally, in a sentence like (41), a singular relative pronoun like *na* would be required between *ɗi* and *zea*, as in *ámá na ze* 'person who (is) big'.

Ik has another demonstrative pronoun, *kiɗiásaí-*, which is a combination of three elements: 1) the distal plural demonstrative *ki*, 2) the plural demonstrative pronoun in the accusative case (*ɗiá*), and 3) the indefinite

pronoun *saí-*. As with the distal demonstrative pronouns listed in (36), the distal demonstrative *ki* is analyzed here as a proclitic. By contrast, the combination of *ɗiá* and *saí-* can be treated as a sort of compound.

As mentioned in §5.3, the pronoun *saí-* has the indefinite sense of 'some others'. However, when it comes to *kiɗiásaí-*, the distal demonstrative *ki* (which is inherently definite) has the effect of making this complex pronoun more definite. This accords well with the cross-linguistically attested grammaticalization of a demonstrative to a definite marker (Heine & Kuteva 2007:88). And so a reasonable gloss of *kiɗiásaí-* seems to be 'the others':

(42)   *Taɓoletini kiɗiasaik.*
       taɓól-ét-ini   ki = ɗiásaí-kᵉ
       celebrate-VEN-SEQ   the = others-DAT
       And they celebrated to (i.e. in front of) the others.

(43)   *Na kiɗiasayaa iwatie ɲakaloaa,...*
       na = ki = ɗiásaí-á   iw-áti-e   ɲakalo-áá
       CONJ = the = others-ACC   hit-3PL-SIML alarm-ACC
       When the others sounded the alarm,…

5.6   Relative pronouns

The Ik relative pronouns are identical in form to the non-final demonstratives (see §8.2). Since demonstratives have a more basic and non-recursive function than relative pronouns, it is assumed that the Ik relative pronouns are a grammaticalization of the demonstratives (cf. Heine & Kuteva 2007:89). One possible chain of grammaticalization for Ik relative pronouns is shown in (44), where there is evolution going from simple noun phrase to stative relative clause to transitive relative clause:

(44)   *Grammaticalization from demonstratives → relative pronouns*

ámá=na	'this person'
ámá=na maráŋ	'person who (is) good'
ámá=na béɗá ŋkáŕákᵃ	'person who wants food'

Ik relative pronouns are analyzed as enclitics attaching to the main clause argument they are relativizing. This analysis is based on the lexical (§3.1.6) and the post-lexical (§3.1.7) vowel harmony that occurs between the relativized argument and the relative pronoun. More specifically, a lexically [+ATR] relativized argument spreads harmony to the singular remote past relative pronouns =nɔɔ, as in *ámoo=noo baduƙotᵃ* 'the person who died'. Then, at the post-lexical level, all the plural relative pronouns harmonize the last phonetic syllable of the preceding word if [-ATR], for example when *mɛsɛɛ=ni ɓar* 'the beer that is sour' surfaces as [mɛsee=ni ɓar].

The Ik relative pronouns not only introduce relative clauses but also fill the slot of the common argument (CA) shared by the main clause and relative clause. They convey the grammatical number of the CA as well as the tense of the relative clause. Tensed relative pronouns may be rare but are not unheard of (Dixon 2010:346). It is no accident that the recent past and remote past demonstratives and relative pronouns are identical in form to the recent and remote past tense clitics (see §7.10.1 and §8.2.2).

The relative pronouns are presented in (45):

(45)   *Ik relative pronouns*

	Singular	Plural
Non-past	=na	=ni
Recent past	=náa	=níi
Removed past	=sɪna	=sini
Remote past	=nɔɔ	=nuu

As (45) shows, the relative pronouns express the grammatical number of their referent, as well as the tense of the relative clause. Besides a general non-past, the pronouns also flesh out the whole three-term past tense sytem: recent, removed, and remote past. This system of tensed relative pronouns allows the grammar to communicate nuances like the following:

(46)   *Tensed relative clauses*

ámá na tóda zukᵘ	'person who talks a lot (now or generally)'
ámá náa tóda zukᵘ	'person who talked a lot (earlier today)'
ámá sɪna tóda zukᵘ	'person who talked a lot (yesterday)'
ámá noo tóda zukᵘ	'person who talked a lot (a while ago)'

In a synchronic description of these relative pronouns, it does little good to analyze them further morphologically. And it is not known whether Ik speakers think of them as including more than one unit of meaning. Nevertheless, at least historically, relative pronouns (singular and plural) at three of the four tense levels do contain more than one morpheme.

To begin with a some background information, consider the non-final and final forms of Ik singular and plural tensed demonstratives (cf. §8.2.1):

(47)   *Ik tensed demonstratives*

	SG		PL	
	NF	FF	NF	FF
Non-past	na	n(a)	ni	n(i)
Recent past	ná-a	ná-kᵃ	ní-i	ní-kⁱ
Removed past	sɪ-na	sɪ-n	si-ni	si-n
Remote past	nɔ-ɔ	nɔ-kᵓ	nu-u	nu-kᵘ

Note from (47) that the non-final forms for both singular and plural are identical to the relative pronouns in (45) above. Also note that the element *na* (*nɔ* with vowel assimilation) in the non-past tense forms a base for all the

other tenses in the singular, just as *ni* (or *nu*) does in the plural. In the final forms of singular recent and remote past, the *-kᵃ* and *-kᵒ* remind one of the accusative and copulative case suffixes, respectively. Looking at the basic elements *na/nɔ* in the singular and *ni/nu* in the plural, along with what appear to be grammaticalizations of case suffixes (§6.4.2), it seems likely that the tensed demonstratives involve more than one morpheme.

In light of this, the following analysis of the relative pronouns should prove more useful for someone undertaking historical-comparative research. See §8.2.1 for further comments on the morphological makeup of these forms:

(48)   *Ik relative pronouns in diachronic analysis*

	Singular	Plural
Non-past	na	ni
Recent past	ná-a	ní-i
Removed past	sɪ-na	si-ni
Remote past	nɔ-ɔ	nu-u

5.7   Reflexive pronoun

Ik expresses reflexivity with the special free pronoun *asɪ́-* which is undoutedly related the So word *as* 'body' (cf. the Ik word for body, *nébu-*). This form has been analyzed as a verbal particle (Heine & König 1996:47), but the fact that it inflects for case discounts this view. The Ik reflexive pronoun is 'informative' in that it communicates the grammatical number (but not person) of its 'controller' (Dixon 2012:154). Its controller can be of any grammatical person (1-2-3). If the controller is plural, then the pronoun reflects this by being pluralized with the plurative III {-ɪka}. Being a free pronoun, the reflexive is inflected for all cases in the singular and plural:

(49)   *Case inflection of the Ik reflexive pronoun*

	asɨ́- (sg.)		ás-íka- (pl.)	
	NF	FF	NF	FF
NOM	as-a	as-ᵃ	ás-ík-a	ás-ík-ᵃ
INS	as-ɔ	as-ᵓ	ás-ík-ɔ	ás-ík-ᵓ
ABL	asʊ́-ɔ́	asʊ́-ᵓ	ás-íkɔ-ɔ	ás-íka-ᵓ
GEN	asɨ́-ɛ́	asɨ́-ᵋ	ás-íkɛ-ɛ	ás-íka-ᵋ
ACC	asɨ́-á	asɨ́-kᵃ	ás-íka-a	ás-íka-kᵃ
DAT	asɨ́-ɛ́	asɨ́-kᵋ	ás-íkɛ-ɛ	ás-íka-kᵋ
COP	asʊ́-ɔ́	asʊ́-kᵓ	ás-íkɔ-ɔ	ás-íka-kᵓ
OBL	asɪ	as¹	ás-íka	ás-íkᵃ

In a reflexive transitive clause, the controller and the reflexive pronoun are co-referential semantically. At the surface level, the controller is encoded as an agent (A) in the nominative case, while the reflexive can be an object or peripheral argument, depending on the verb. Then the O is encoded by the reflexive pronoun *asɨ́-*. It always follows the verb and any overt subject in the clause but may be followed itself by peripheral arguments or adverbs:

(50)   *Iŋaɗaikotoo ntsa asik.*

ŋáɗá-ɪ̀ɓɔ̀t-ɔ-ɔ   nts-a   asɨ́-kᵃ

put.aside-AND-3SG-SEQ   he-NOM   self-ACC

And he put himself aside.

(51)   *Eja kawuɓoida asa ɲemeleku.*

ɛɟ-á   kaw-uɓó-íd-a   as-a   ɲémɛlɛkʊ́-∅

not-REAL   cut-AND-2SG-REAL   self-NOM   hoe-INS

Don't cut yourself with the hoe.

(52)   *Iturata asikak.*

itúr-út-át-a   ás-íka-kᵃ

praise-CAUS-3PL-REAL   self-PL-ACC

They praise themselves.

As seen in these examples, any transitive verb can be given a reflexive meaning with this pronoun. To show this lexically, the following verb pairs are given in the infinitive with the reflexive object in the genitive:

(53) *Non-reflexive and reflexive verb pairs*

balɛ́s	'to ignore'
balɛ́sá así	'to ignore oneself'
daitetés	'to make to look nice'
daitetésá así	'to make oneself look nice'
ɗɔtsɛtés	'to join'
ɗɔtsɛtésá así	'to join oneself'
hoɗetés	'to free'
hoɗetésá así	'to free oneself'
ɪrɪtsɛ́s	'to take care'
ɪrɪtsɛ́sá así	'to take care of oneself'

5.8   Distributive pronouns

Ik has two distributive pronouns, the free pronoun *ŋana-* and the bound pronoun *ké-*. The first, *ŋana-*, can be roughly glossed as 'each one', while the second can be glossed as 'each' since it must take a nominal complement. The pronoun *ké-* is odd in that it behaves like a nominal prefix (which present-day Ik does not have) or a proclitic. But since it can change the tone on the nominal complement, it is treated here as a reduced noun functioning as the N_1 of special nominal compound, glossed as 'each X'. Examples of both distributive pronouns include the following few sentences:

(54) *Kayuo ŋana nayee yeati.*

ƙa-i-o   ŋan-a   naí-é   yeatí-ᵉ
go-3SG-SEQ   each-NOM   place-DAT   his.sibling-GEN

Each one should go to his brother/sister.

(55) *Atsa noo keŋana ngwee itsumuk.*

ats-a=noo   ké-ŋán-a   ŋgó-é   ɪtsʊm-ʊ-kᵓ
come-REAL=PST3   each-each.one-NOM   we.PL.EXC-GEN   pierce-3SG-SEQ

Each one of us came and took a stab (at a bull).

(56) *Keesa keama muɲu ikiraakok.*

ƙe-es-á   ké-ám-a   muɲu   ɪƙɪra-aƙɔ-kᵋ
go-INT-REAL   each-person-NOM   all   writing-inside-DAT

Each and every person will go for the census.

(57) *Keeakwaa tirie ntsenia ɓisae.*

ké-ȩakw-aa   tír-í-e   nts-έní-a   ɓɪsá-ᵋ
each-man-ACC   hold-3SG-SIML   his-PSSM-ACC   spear-GEN

Each man holding his own spear.

5.9 Cohortative pronouns

The Ik cohortative pronouns are complex: *taŋέ-έdɛ-* in the singular and *taŋá-ík-mɪ-* in the plural. They consist of the root *taŋá-* plus the singular and plural possessive suffixes (§4.2.5-4.2.6). The root *taŋá-* does not occur alone anywhere else in the language. This pronoun is called 'cohortative' because it refers to any other member of some group, or even just a pair. As such, the best single gloss for it in English would be 'co-' or 'cohort', although that obviously does not fit all contexts. Better glosses may be 'colleague', 'age-mate', 'mate', 'sibling', etc. depending on circumstances.

The two sentences below illustrate the use of the cohortative pronouns:

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(58) *Isio minidee iŋitiesia taŋeede?*

isi-o   mín-íd-ɛ=ɛ   iŋit-i-esí-a   taŋɛ́-ɛ́dɛ-∅

what-COP   love-2SG-REAL=DP imitate-PLUR-INF-ACC cohort-PSSR-GEN

Why do you love to imitate your sister (i.e. co-child)?

(59) *Atsuo taŋaikin.*

ats-u-o   taŋá-ík-ɪn-∅

come-3SG-SEQ   cohort-PL-PSSR.PL-NOM

And their relatives (i.e. co-people) came.

5.10 Dummy pronoun

Ik uses the pronominal enclitic =´dɛ to stand in as a 'dummy' for a peripheral argument that is missing from its expected place in a clause. Heine was the first to identify this morpheme and give it its current label (1983:§2.3.5). In form and function, the dummy pronoun (DP) largely coincides with the Turkana subjunctive marker *-rɛ̀* (Dimmendaal 1983:189), though other parallels have been found in Cushitic and Omotic (see §7.5). The dummy pronoun is underlyingly [-ATR] but is harmonized by [+ATR] stems. Its floating H tone is posited on the basis of the tone changes it causes on the preceding stem. The floating H may be a lexicalization of high-tone insertion meant to counteract the effects of the depressor /d/.

The dummy pronoun (DP) attaches to the end of verbs and is analyzed as a clitic rather than a suffix because it always comes last, regardless of preceding verbal suffixes. But in any case, it could just as well be treated as a suffix without any problems. Because it attaches to verbs, the dummy pronoun is also discussed ahead in §7.5. This enclitic can be difficult to recognize because its non-final form /=´ɛ/ is highly susceptible to vowel harmony and assimilation. Two of its many allomorphs are shown below:

(60)   *Atsinii kot.*
       ats-iní=i=kotº
       come-SEQ=DP=then
       Then they came with it.

(61)   *Cemetukoo roɓa wuo wuo wuo...*
       cɛ́m-ɛ́t-ʊ-kɔ́=ɔ   roɓ-a   wúó   wúó   wúó
       fight-INCH-3SG-SEQ=DP   people-NOM   IDEO   IDEO   IDEO
       And people started (saying) woo, woo, woo...

The dummy pronoun refers anaphorically back to a non-core argument
mentioned earlier in the discourse, either in the same clause or in one or
more clauses earlier. Heine & König state that the DP marks any missing
verbal complement (1996:53), but my data show that it only marks *non-core*
arguments. Moreover, a 'core argument' in Ik is defined in this grammar as
an argument that does not leave behind the DP upon syntactic movement.

Speakers may use the DP to avoid having to repeat an understood argument,
or the syntax may simply require it when an argument has been fronted for
syntactic reasons. In examples (62) and (64) below, there are simple clauses
with a peripheral locative (*sédakᵉ*) and a comitative argument (*ɗaɗo ɲci*). In
(63) and (65), note how the DP is used to fill in for the missing argument:

(62)   *Nta ƙaiii sedak.*
       ńt-á   ƙa-í-íí   séda-kᵉ
       not-REAL   go-PLUR-1SG   garden-DAT
       I don't go to the garden regularly.

(63)   *Nta ƙaiiid.*
       ńt-á   ƙa-í-íí=dᵉ
       not-REAL g   go-PLUR-1SG=DP
       I don't go (there, i.e. the garden) regularly.

(64) *Kaataa ɗaɗo nci.*

ƙá-át-a-a   ɗaɗ-o   ɲci-∅

go-3PL-REAL-PRF honey-INS   I-GEN

They have gone with my honey.

(65) *Kaatakad.*

ƙá-át-a-ka = dᵉ

go-3PL-REAL-PRF = DP

They have gone (with it, i.e. the honey).

But there are also instances where the syntax of subordinate clauses rearranges the usual order of clausal constituents. Temporal subordinate clauses in Ik have the form of a relative clause (§9.9.1), and Ik time expressions are often encoded in the instrumental case (i.e. as a non-core argument). These two factors combined mean that a temporal subordinate clause without an overt time word marks its verb with the DP. This is because the syntax is interpreting the temporal conjunction as a relative pronoun whose common argument is peripheral argument that in fact does not exist. So in the following two examples, the DP is present on the verb to show that the missing argument—a time expression—is accounted for:

(66) *Noo kwatsiad,…*

noo   kwáts-í-á = dᵉ

CONJ.PST3   small-1SG-REAL = DP

When I was small,…

(67) *Sina iyanee Kamionok,…*

sɪ-na   i-an-é = e   kámíóno-kᵉ

CONJ.PST2   be-IPS-REAL = DP Kamion-DAT

When people were in Kamion yesterday,…

Likewise, if the common argument (CA) or head of a normal relative clause is a peripheral argument in the relative clause, then the dummy pronoun

must be attached to the verb. This is because the relative pronoun representing the CA of the relative clause comes before the verb in Ik, meaning it has been fronted from what would be its normal position after the verb. This fulfills the requirements for the use of the dummy pronoun:

(68)   *Ɗuo nuu didia watad.*

        ɗu-ó＝nuu   didi-a   wat-á＝dᵉ

        PRO.PL-COP＝REL.PL.PST3 weather-ACC   rain-REAL＝DP

        It's the ones (i.e. reasons) which it rained for.

        'That's why it rained.'

(69)   *Odoiciko ni atsiimad.*

        ódo-icík-ó＝ni   ats-í-ím-a＝dᵉ

        day-PL-INS＝REL.PL   come-PLUR-1PL.EXC-REAL＝DP

        During the days which we usually come on.

        'The days when we usually come.'

(70)   *Da nuu biraad, mayuode emuti dee.*

        ɗ-a＝nu-u   bɪrá-á＝dᵉ |

        ones-NOM＝REL.PL-PST3 lack-REAL＝DP

        Those it was missing from,

        ma-íó＝ꜜde   emuti＝ꜜdéé

        give-IMP.PL＝DP story[OBL]＝ANPH.SG

        give them that story!

In (68), the CA of the main clause (a copular cleft construction) and the relative clause is the cause or reason for rain. Since it is left-dislocated out of the relative clause, it is marked with the DP. In (69), the CA of main and relative clauses is a time expression. In (70), the DP is used twice: 1) First, it marks the source object of the verb *bɪraa* 'it lacks' that has been fronted (things lack *from* in Ik), and 2) second, it marks the recipient object of the imperative verb *maíó* 'give (pl.)' that is in the previous clause (*ɗa＝nuu*).

6 Case

The description of Ik 'case' is placed here between nouns and verbs because as a meta-categorial system, it applies to both these major word classes. Case is the backbone of Ik grammar. It permeates nearly every grammatical subsystem, such that a good grasp of it is key to knowing the language. Thus, beyond giving an overview of the case system (§6.1), this chapter's aim is to lay out the details of case in the nominal system (§6.2-6.3) and grammaticalized 'case' in other systems, particularly that of verbs (§6.4).

As far as case languages in Africa go, Ik is a magnificent specimen. The following artificially elicited (but fully grammatical) sentence illustrates this by making use of all eight morphological cases: Nominative[1], Copulative[2], Accusative[3], Ablative[4], Dative[5], Genitive[6], Instrumental[7], and Oblique[8]:

(1)   *Benia ntsa amoo noo cea inwaa*

        beni-a   nts-a   ámó-o = noo   cɛ-a   ínó-a
        not.be-REAL he-NOM[1]   person-COP[2] = REL.SG.PST3 kill-real animal-ACC[3]
        He is not the person who killed the animal

        riɟaaƙoo sedee ntsie ɓiso nda nc.

        ríɟá-aƙɔ-ɔ   séde-e   ntsí-é   ɓis-ɔ   ńda   ɲc[i]
        forest-inside-ABL[4] garden-DAT[5] he-GEN[6] spear-INS[7] with   I[OBL][8]
        from the forest in his garden with a spear with me.

A complex sentence like this one embodies the language's full-fledged morphological case-marking system. In addition to word order and connectives like *ńda* 'with', Ik uses this case system to mark grammatical relations and encode semantic roles in an integral and efficient manner.

6.1   Case overview

> "The case marking typology of a language is surely its most central
> typological parameter, since almost all other parts of the grammar
> must interact with it."—Talmy Givón, quoted by Serzisko (1992:50)

All Ik nominals must be inflected for case, and formal parallels of nominal
case markers are found in other diverse parts of the grammar. Due to its
grammatical centrality, the Ik case system has already been the subject of
several works (e.g. Heine 1990, König 2002, König 2008, and Schrock
2014). As König defines it, "a case system is an inflexional system of
marking nouns or noun phrases for the type of relationship they bear to
their heads… expressed by affixes, tone, accent shift, or root reduction…"
(2008:5). Out of the above list, Ik uses a combination of affixes and stem
reduction to encode case relations. The affixes are suffixes, and stem
reduction means the stem-final vowel is deleted before some case suffixes.

Ik employs eight cases to encode grammatical relations between verbs and
their arguments, or between arguments and modifiers (genitive). In König's
African case typology, Ik is a *Type 2 split-accusative* system in which both the
nominative and accusative cases are marked (2008:10). It is 'accusative' in
that when core clausal arguments are marked differently from each other, S
and A take the nominative case, while O takes the accusative case. And it is
'split' in that this accusativity only occurs when the subject (A) is third
person. The objects (O) of first and second person subjects (A/S) take the
nominative case. And when a subject (A/S) is preposed before the verb, for
example in most types of subordinate clauses, it also takes the accusative.
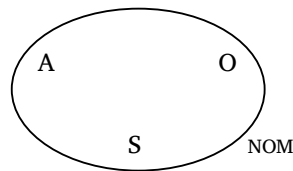
(2)   *1/2 person subjects*   *3 person subjects*
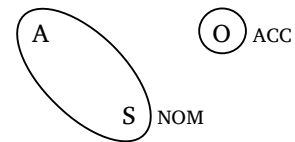
Blake defines case as a typical system of "marking the relationship of a noun to a verb at the clause level or of a noun to a preposition, postposition or another noun at the phrase level" (1994:1). True to this definition, Ik case encodes the grammatical relations between a verb and its core arguments and any non-core arguments. And though in Ik the genitive case can mark arguments for some verbs, its main function is to mark the relationship between a noun phrase and a possessive nominal modifier.

A 'core argument' in Ik is generally defined as any verbal argument that cannot be represented by the dummy pronoun (§5.10). Normally such arguments are encoded with the nominative, accusative, or copulative cases, but as explained below, various complications occur. And as its label suggests, the 'oblique' case straddles the simple divide between 'core' and 'non-core' cases: It actually encodes all core arguments in imperative and optative clauses, as well as a variety of peripheral argument roles in other types of clauses, but it cannot be represented by the dummy pronoun. The basic case-marking scheme for clausal arguments in Ik is presented in (3):

(3)   *Basic case-marking scheme on clausal arguments*

Core	NOM, ACC, COP, (OBL)
Non-core	INS, ABL, DAT, GEN, (OBL)

Subjects (A/S) of indicative clauses always bear the nominative case suffix:

(4)   *Epa ŋok.*
        ep-a   ŋók-^a_S
        sleep[3SG]-REAL dog-NOM
        The dog is sleeping.

(5)   *Ats'a ŋoka okak.*
        áts'-á   ŋók-á$_A$ ɔká-k^a
        gnaw[3SG]-REAL dog-NOM   bone-ACC
        The dog is gnawing a bone.

Subjects (A/S) of conditional/hypothetical subordinate clauses with a sequential verb form are also marked with the nominative case. (This is because the syntax is interpreting the conjunction *na* as filling the verbal slot; indeed it can be followed by both tense and adverbial enclitics as any typical verb would. For more on subordinate clause syntax, see §9.9):

(6)   *Na bia iryameiduo kaudzoe,…*
        na = bi-a$_s$ iryám-é-idu-o   kaúdzo-e
        CONJ = you.SG-NOM   get-VEN-2SG-SEQ   money-DAT
        If you come across money,…

(7)   *Na feta nketoo bia,…*
        na = fet-a$_A$ ŋk̆-ɛ́t-ɔ-ɔ   bi-a
        CONJ = sun-NOM   eat-INCH-3SG-SEQ   you.SG-ACC
        If you get thirsty,… (lit. 'If the sun starts eating you,…')

But subjects (A/S) of all other types of subordinate clauses take the accusative case. In such clauses, the constituent order is SV/AVO, a deviation from the language's unmarked VS/VAO order. For yet unknown reasons, Ik syntax marks preverbal subjects (with the above exceptions of sequential subordinate clauses) with the accusative case, as in:

(8)   *Noo ncia kwatsiyaad,…*
        noo   ɲci-a$_s$ kwáts-í-í-a = d^e
        CONJ.PST3   I-ACC   small-PLUR-1SG-REAL = DP
        When I was small,…

(9)   *Naa oŋoria wetetie koinia,…*
        náa   oŋori-a$_A$ wét-ét-i-e   kɔ́ɲná-a
        CONJ   elephant-ACC   drink-VEN-3SG-SIML   scent-ACC
        When the elephant catches the scent,…

However, the subjects (A/S)—or 'vocatives' if one prefers—of imperative and optative clauses take the oblique case:

(10) *Ƙae bi ɗemus!*

ƙa-é   bi$_S$ ɗɛmʊs

go-IMP.SG   you.SG[OBL]   quickly

You go quickly!

(11) *Goƙaaketano njin!*

goƙ-aak-ét-ano   ɲjín$_S$

seated-DISTR-INCH-OPT   we.INC[OBL]

Let us be seated!

The direct object (O) of a transitive clause in the indicative mood, with a first or second person subject, also takes the nominative case:

(12) *Ats'uƙotima naa ŋur.*

áts'-úƙɔt-ím-á＝naa   ŋʊr-^a_O

eat-COMP-1PL.EXC-REAL＝PST1   cane.rat-NOM

We ate the cane rat up.

(13) *Rebida nk.*

réb-id-a   ŋk-^a_O

deny-2SG-REAL   I-NOM

You're denying me (i.e. witholding sth. from me).

But the direct object (O) of 1) any clause with a third-person subject or 2) any transitive subordinate clause takes the ccusative case:

(14) *Ats'a kweta ncik.*

áts'-á   kwɛt-a   ɲ́ci-k^a_O

eat[3SG]-REAL   arm-NOM   I-ACC

My arm is hurting me.

(15) *Isio rebidee ncik?*

isi-o   [réb-id-e = e   ɲci-kᵃ$_O$]$_{SUBORD}$

what-COP   deny-2SG-REAL = DP   I-ACC

Why are you denying me?

Direct objects (O) of imperative or optative clauses take the oblique case:

(16) *Duƙwee mɛse ni ʝakak.*

d-uƙo-e   mɛse$_O$ = ni   ʝáká-kᵉ

take-AND-IMP.SG   beer[OBL] = DEM.PL   elders-DAT

Take this beer to the elders.

(17) *Ogoe ziiƙoti riy.*

ógo-e   zí-íƙɔt-ɪ   ri$_O$

let-IMP.SG   tie-COMP-3SG[OPT]   goat[OBL]

Let him tie up the goat.

The subject of a copula clause (CS) is also marked with the nominative case. For a full list of examples, see §10.4. And the complement of a copula-of-identity clause (CC) is marked with the oblique case:

(18) *Mitima ngwa ɲot.*

mɪt-ím-á   ŋgw-a$_{CS}$ ɲɔtˀ$_{CC}$

be-1PL.EXC-REAL   we.EXC-NOM   men[OBL]

We are men.

Lastly, in copula clauses, the copula subjects (CS) are marked with the nominative and the copula complements (CC) with the copulative case:

(19) *J'akamoo nk.*

ʝák-ámo-o$_{CC}$ ŋk-ᵃ$_{CS}$

elders-SING-COP   I-NOM

'An elder am I.'

Thus are the core clausal arguments marked with case in Ik. When it comes to non-core (peripheral) arguments, their relations to the verb are encoded by five different cases (including the oblique). A representative example for each non-core case is provided in the next sentences, with an indication of some of the prototypical semantic roles they express. More detailed treatments of each non-core (and core) cases follow in the sections below.

(20)   Oblique: *Cemata waako nda fek.*

cɛm-át-a   wáák-o   ńda   fek^{i}$_{ADDITION}$

fight-3PL-REAL   play-INS   and   laughing[OBL]

They are playing and laughing.

(21)   Instrumental: *Ɗalute ŋoki sew.*

ɗalút-e   ŋókí   sɛw-ˀ$_{INSTRUMENT}$

hit-IMP.SG   dog[OBL]   stick-INS

Hit the dog with a stick.

(22)   Ablative: *Atsima awao.*

ats-ím-á   awá-º$_{SOURCE}$

come-1PL.EXC-REAL   home-ABL

We're coming from home.

(23)   Genitive: *Beɗa ɗawaa ntsi.*

béɗ-á   ɗaʊ-a   ntsí-∅$_{POSSESSION}$

want[3SG]-REAL knife-ACC   s/he-GEN

He's looking for his knife.

(24)   Dative: *Meesia bitik.*

me-es-í-á   biti-kᵉ$_{RECIPIENT}$

give-INT-1SG-REAL you.PL-DAT

I will give (it) to you.

The following table presents a grammatical summary of the eight cases:

(25)   *Ik case summary*

Case	Grammatical relation(s)	Semantic role(s)
NOM	1) Subject (A/S) of indicative main clauses and sequential subordinate clauses	Agent Donor Speaker Cogitator Perceiver Experiencer Theme Patient (passive)
	2) Object of indicative clauses with 1-2 person subjects	Patient Stimulus Complement
INS	Non-core argument	Instrument Path Manner Comitative Time Progressive
ABL	Non-core argument	Source Location Cause Stimulus
GEN	1) Modifier of noun phrase head	Possession
	2) Complement of similative clause	Stimulus
DAT	Non-core argument	Recipient Beneficiary...

		Location
		Goal
		Purpose
ACC	1) Object of indicative transitive clauses with 3SG or 3PL subjects	Patient
		Stimulus
		Complement
	2) Subject (A/S) of all but sequential subordinate clauses	(Same as NOM)
COP	1) Complement of Identity copula clauses	Identity
OBL	1) Non-core argument	Addition
	2) Complement of quotative clause	Message
		Thought
	3) Complement of Indentity copula clause	Identity
	3) Subject of imperative and optative clauses	(Same as NOM)
	4) Object of imperative and optative clauses	(Same as ACC)

6.2 Case suffixes

Ik case morphemes are suffixes that consist of a single vowel (-V), a -CV sequence, or a zero realization (Ø). These morphemes are analyzed as suffixes rather than clitics because they always attach directly to the head and not the edge of the noun phrase. And they are analyzed as suffixes rather than postpositions or compound N$_2$s because a) they are highly eroded and b) cannot take any suffixes themselves.

The case suffixes have L tone but undergo tone changes coming from the stem to which they attach. Though there are eight cases, only six are distinct suffixes. Two other case suffixes (the instrumental and the ablative) are identical in form but differ in whether they subtract the stem-final vowel. This difference creates the seventh case marker. Finally, an eighth case (the oblique) is zero-marked. The eight case suffixes are given in (26):

(26)   *Ik case suffixes*

Case	Abbreviation	Case suffix	Stem reduction
Nominative	NOM	-a	Yes
Instrumental	INS	-ɔ	Yes
Ablative	ABL	-ɔ	No
Genitive	GEN	-ɛ	No
Dative	DAT	-kɛ	No
Accusative	ACC	-ka	No
Copulative	COP	-kɔ	No
Oblique	OBL	-Ø	No

6.2.1 Case allomorphy

The Ik case suffixes undergo intricate morphophonological variations that have confounded earlier attempts to analyze and describe the case system as a whole. From Crazzolara 1967 all the way to Schrock 2014, the literature reveals a progressing understanding of Ik case. Some of these tricky morphophonological variations include pre-pause devoicing (§2.3.1), inter-

vocalic consonant deletion (§2.9.3), vowel assimilation (§2.9.4), and vowel harmony (§3.1). A good way to become familiar with the variations is to look at the case declensions of several nouns, starting with *ŋókí-* 'dog':

(27)   *Case inflection of ŋókí- 'dog'*

Case	Non-final (/___...#)	Final (/___#)
NOM	ŋók-á	ŋók-ᵃ
INS	ŋók-ó	ŋók-ᵒ
ABL	ŋókú-o	ŋókú-∅
GEN	ŋókí-e	ŋókí-∅
DAT	ŋókí-e	ŋókí-kᵉ
ACC	ŋókí-a	ŋókí-kᵃ
COP	ŋókú-o	ŋókú-kᵒ
OBL	ŋókí	ŋókⁱ

As shown in (27), Ik case suffixes have non-final and final forms. This division entails different things for different groups of case suffixes. First, all suffixes undergo devoicing in final, pre-pause environments (§2.3.1). Suffixes that consist of vowels only (NOM, INS, ABL, GEN) are devoiced or deleted, depending on the preceding consonant or vowel (see §2.3.1). For suffixes that consist of a -CV sequence (DAT, ACC, COP), their final vowel is also devoiced or deleted under the same conditions. For the one case that is zero-marked (OBL), the final vowel of the noun root or stem is devoiced. Second, all the suffixes that contain the segment /k/ (DAT, ACC, COP) lose the /k/ in their non-final forms. This deletion of /k/ is part of a larger, language-wide tendency to delete consonants in non-final positions (§2.9.3).

All case suffixes undergo vowel harmony (§3.5). Though the underlying forms of the case suffixes are posited as [-ATR], all the suffixes but NOM in (27) are [+ATR] because they have been harmonized by the [+ATR] *ŋókí-* 'dog'. Also, when a case suffix involving back vowels /ɔ, o/ follows a root with a high front vowel /ɪ, i/, the high front vowel is backed to /ʊ, u/. Vowel harmony and assimilation occur whether a /k/ intervenes or not.

Another variation—total vowel assimilation—occurs when a [-ATR] noun ending in /a/, like *ŋʊrá-* 'cane rat', is inflected for all eight cases:

(28) *Case inflection of ŋʊrá- 'cane rat'*

Case	Non-final (/___...#)	Final (/___#)
NOM	ŋʊr-a	ŋʊr-∅
INS	ŋʊr-ɔ	ŋʊr-ˀ
ABL	ŋʊrɔ́-ɔ́	ŋʊrá-ˀ
GEN	ŋʊrέ-έ	ŋʊrá-ᵋ
DAT	ŋʊrέ-έ	ŋʊrá-kᵉ
ACC	ŋʊrá-á	ŋʊrá-kᵃ
COP	ŋʊrɔ́-ɔ́	ŋʊrá-kˀ
OBL	ŋʊra	ŋʊr

The data in (28) show how the non-final forms of the ablative, genitive, dative, and copulative cases totally assimilate the root-final /a/ of *ŋʊrá-*. Total assimilation of this type is widespread in the language (§2.9.4) and is an important key to unlocking the case system as a whole.

Finally, the [+ATR] noun *dakú-* 'tree', when inflected for all the cases, brings out a few more morphophonological variations, as discussed below:

(29) *Case inflection of dakú- 'tree'*

Case	Non-final (/___...#)	Final (/___#)
NOM	dakw-a	dakw-ᵃ
INS	dak-o	dak-ᵒ
ABL	dakú-ó (dakw-óó)	dakú-∅
GEN	dakú-é (dakw-éé)	dakú-ⁱ (dakwí-∅)
DAT	dakú-é (dakw-éé)	dakú-kᵉ
ACC	dakú-á (dakw-áá)	dakú-kᵃ
COP	dakú-ó (dakw-óó)	dakú-kᵒ
OBL	daku	dakᵘ

One thing to note from (29) is that in the nominative case, the root *dakú-* 'tree' does not surface **dak-a/dak-ᵃ* 'tree-NOM'. This goes against what is normally expected from stem reduction. In fact, a small number of nouns ending in a back vowel retain them as the semi-vowel /w/. To see a list of other such exceptions to the rule, skip ahead to §6.3.1 on the nominative.

A second thing to note is that in the five cases that involve the full underlying noun root and a suffix consisting of a vowel only, a root-final back vowel may be optionally desyllabified to /w/ (§2.4.2). When this happens, the back vowel gives up its mora to the following case suffix, which results in the compensatory lengthening of that suffix.

Lastly, in the final form of the genitive case, when the genitive case suffix {-ɛ,e} follows a high back vowel, the high back vowel may raise it to /ɪ, i/.

6.2.2 Case origins

The precise origin of the Ik case suffixes is not known, but a clue may come from how they affix to nominal stems. As noted earlier, the case suffixes can be grouped according to their suffixation 'strategy'—subtracting or preserving the stem-final vowel. These different suffixation strategies may point to two different origins for the suffixes. Ik syllable structure does not allow consonant clusters, so those case suffixes that begin with /k/ (accusative {-ka}, dative {-kɛ}, and copulative {-kɔ}) require the stem-final vowel to remain to prevent a CC sequence. It seems likely, then, that the ablative {-ɔ} and genitive {-ɛ} may have once contained a consonant as well, since they preserve the stem-final vowel. The nominative {-a} and instrumental {-ɔ} suffixes, though, seem to have originated as single vowels since they do not require the stem-final vowel to break up a CC sequence.

In terms of ultimate origin, according to Heine & Kuteva, there are three known pathways for the evolution of case markers (2007:62, 75, 91):

(30)   *Evolutionary pathways for case markers*

1	Noun > (adposition) > case marker
2	Verb > case marker
3	Adposition > case marker

As a working hypothesis, Ik case markers may have originated from N_1-N_2 compounds where the N_2 first desemanticized slightly to become an adposition. The adposition (postposition) then desemanticized further and eroded phonetically to become the language's present-day case morphemes. Even today, compounding is the language's primary nominal word-building mechanism (see §4.3.). Lexical compounds join nouns to nouns, as in:

(31)   *Lexical compounds*

bɛfá-cɛ́mɛ́r	'*Cissus rhodesiae* herb'	(puff adder-herb)
aká-kwáˤ	'lip'	(mouth-edge)
ɗiɗe-ŋwa	'female donkey'	(donkey-female)
lɛra-aƙwᵃ	'White-Thorn place'	(White Thorn-inside)
wáána-ho	'church'	(prayer-hut)

In principle, any noun in the language can be a compound's N_2 (though not all will be semantically acceptable), but a smaller subset of nouns are more productive and seem to be in the process of shifting from the status of full nouns to nominal adpositions or even suffixes. They include the following:

(32)   *Grammaticalizing compound N_2s*

aƙɔ́-	'interior'	>	Inessive case suffix?
ámá-	'person'	>	Agentive singular suffix?
icé-	'(Ik) people'	>	Agentive plural suffix?
imá-	'child'	>	Diminutive singular suffix?
wicé-	'children'	>	Diminutive plural suffix?

The nominals in (32), while today still full nouns in their own right, also function in compounds with semi-grammatical functions. It looks like a slow

transition from noun to adposition or inflectional morpheme is currently underway. Admittedly a matter of speculation, this idea is given just as a possible scenario for how Ik case suffixes developed. And unfortunately, it is not known whether any of the Ik case suffixes could be tied to any nouns with full lexical status synchronically; these have yet to be identified.

In terms of areal parallels for the Ik case system, the closest place to look is Teso-Turkana. Dimmendaal's description of the Turkana case system reveals a few similarities with Ik but also substantial differences (1983:66-67). With six cases (absolutive, nominative, genitive, instrumental, locative, and vocative), Turkana has almost as many as Ik. But a crucial difference is that Turkana cases are marked with tone rather than affixes. Also, while Ik is both a marked nominative *and* marked accusative language, Turkana is only a marked nominative language: Direct objects, indirect objects, and a noun's citation form are all unmarked as absolutive. But post-verbal clauses subjects take the tonally marked nominative case. So if Teso-Turkana had influence on the development of the Ik case system, it was through syntax only and not morphology. Tone plays no role at all in Ik case marking.

As a putative close relative of Ik, the Kuliak So exhibits substantial morphological decay of an older Kuliak case system that Ik has more fully retained (Carlin 1993:90-93). The table in (33) presents the author's analysis of the current overlap between the case systems in both languages. Namely, the So 'goal' case morpheme *-Vk* is a relic of the Ik dative case morpheme {-kɛ} but has taken only some of its semantic roles (goal and recipient). The Location role of the Ik dative case has been assumed by the So 'locative' case *-a/o*. But this case now also shares roles handled by the Ik ablative case {-ɔ} (e.g. location) and in one of its allomorphs shares the form as well. The So 'circumstantial' case seems to take its current form (*-ʊk*) from the Ik copulative case, which, in combination with a verb-final vowel often looks like *-ʊkˀ*. The So circumstantial case shares the semantic roles of instrument and cause with the Ik ablative case:

(33)   *Comparison of Ik and So case suffixes*

Ik		So		
OBL	-Ø			
NOM	-a			
DAT	-kɛ		-Vk	'Goal'
			-a, -o	'Locative'
ABL	-ɔ			
INS	-ɔ		-ʊk	'Circumstantial'
COP	-kɔ			
ACC	-ka			
GEN	-ɛ			

6.3   Case on nouns

The present section presents details of each of the eight cases as they apply to their function in the nominal system. Formal parallels to case suffixes and their functions in other grammatical subsystems are treated in §6.4.

6.3.1 Oblique

The oblique case is the only zero-marked (Ø) case in Ik. As such, it segmentally mirrors a noun's basic underlying lexical form. But in their non-final forms, nouns with a tone melody LH surface as LL. That is, tone may minorly distinguish the oblique case from the lexical base of some nouns. In the oblique case, stem-final vowels are devoiced or deleted before a pause. The paradigm for oblique, as well as those for the other cases, show nine nouns each ending with one of the language's nine contrastive vowels:

(34)   *Oblique case paradigm*

Basic form[OBL]	Non-final	Final	Gloss
ŋókí-Ø	ŋókí	ŋók[i]	'dog'
sɪsí-Ø	sɪsɪ	sɪs	'honey-beer'

ɓóré-Ø	ɓóré	ɓór	'corral'
ɲɛƙɛ-Ø	ɲɛƙɛ	ɲɛƙᵉ	'hunger'
ŋʊrá-Ø	ŋʊra	ŋʊr	'cane rat'
zɪnɔ́-Ø	zɪnɔ	zɪn	'zebra'
ɗéró-Ø	ɗéró	ɗér	'rat'
kafʊ-Ø	kafʊ	kafᵛ	'thorn'
dakú-Ø	daku	dakᵘ	'tree'

Despite the near identity of a noun's basic form and oblique case form, the Oblique must be maintained as a proper case of its own. This is because it is required for specific, unique grammatical relations and semantic roles.

The Ik oblique case marks out the following seven grammatical functions:

(35)   *Oblique case grammatical functions*

1	The subject of imperative and optative clauses.
2	The object of imperative and optative clauses.
3	The complement of identity copula clauses.
4	The first element in a nominal compound.
5	The nominal complement of a quotative clause.
6	A vocative.
7	A noun after a preposition

The first function of the oblique case—marking the subject (A/S) of an imperative or optative clause—is illustrated in the two following examples:

(36)   *Kae bi awak.*

ƙa-é   bi$_s$ awá-kᵉ

go-IMP.SG   you.sg[OBL]   home-DAT

You go home!

(37)   *Talake ja ngo ceiƙotima gaso.*

talák-é = ja   ŋgo_A   cɛ-íƙɔ́t-ɪma   gaso_O
let-IMP.SG = ADV we.EXC[OBL]kill-COMP-1PL.EXC[OPT]   warthog[OBL]
And then (lit. 'let go') we just killed the warthog.

The second function—marking the object (O) of an imperative or optative clause—is illustrated in (38) for imperative and (39) for optative:

(38)   *Dee ɗi nak.*

d-e-e   ɗɪ_O = nák^a
bring-VEN-IMP.SG   one[OBL] = DEM.SG.PST1
Bring the one of earlier!

(39)   *Nesibano nai na.*

nesíb-ano   naí_O = na
hear-OPT   here[OBL] = DEM.SG
Let's listen here (i.e. 'Let's listen to this.')

The third function of the oblique case—marking the complement of an identity copula clause—is shown in the next two examples. In an Ik copula clause of identity, the copula *mɪt-* 'be (sth. or sb.)' links the copula subject (CS) with the copula complement (CC). As seen below, the copula subject occurs in the nominative case, while the complement occurs in the oblique:

(40)   *Mitiya noo terega ntsie ɗusesi ts'iƙae.*

mit-i-a = noo   teróg-a_{CS}   ntsí-é ɗus-ésí_{CC}   ts'ɪƙá-^ɛ
be-PLUR-REAL = PST3 work-NOM   he-GEN dip-INF[OBL]   bees-GEN
His work used to be to collect bees (i.e. to 'dip' honey).

(41)   *Mita noo kija otae.*

mɪt-a = noo   kíɟ-á_{CS}   ɔtá^ɪ_{CC}
be-REAL = PST3   land-NOM   wet.season[OBL]
The land was wet season (i.e. it was wet season).

The fourth function of the oblique case is to mark the first element (N$_1$) of a nominal compound. The first nominal element must be in the oblique case, while the second element takes whatever case the syntactic context calls for. In this grammar, compounds are identified with a hyphen between the two nouns or pronouns in question. (42) gives two examples of compounds in isolation, and (43)-(44) give two in complete sentences:

(42) *ɗerocemer*   *epuaw*
      ɗéró-cɛmɛ́r-ᵒ   epú-áw-ᵒ
      rat[OBL]-herb-NOM   sleep[OBL]-place-NOM
      rat poison   sleeping place

(43) *Kaini ƙaatie mariŋikagwariik.*
      ƙa-ini   ƙá-áti-e   maríŋ-íka-gwarí-ík-ᵒ
      go-SEQ   go-3PL-SIML   fence-PL[OBL]-top-PL-INS
      And they went, going by the fence-tops.

(44) *Zeƙwesoo ɟaka dakudeao.*
      zɛƙw-ɛs-ɔ-ɔ   ɟák-á   dakú-dɛa-ᵓ
      sit-IPFV-3SG-SEQ   elders-NOM   tree[OBL]-foot-ABL
      And the elders were sitting at the foot of the tree.

The fifth function of the oblique case is to mark the complement of a quotative clause if the complement is a single noun, usually *isi-* 'what':

(45) *Kutia naa bie is?*
      kʊt-í-a＝naa   bi-e   [is]$_{\text{QUOT COMPLEMENT}}$
      say-1SG-REAL＝PST1   you.SG-DAT   what[OBL]
      I said to you what?

The sixth function of the oblique case is to mark the 'vocative', that is, any noun referring to a person being called. Take the following examples:

(46) *Ee wice!*   *Iyida, abaŋi?*

    éé   wice   i-íd-a   abáŋi

    INTJ   children[OBL]   be-2SG-REAL my.father[OBL]

    Hey, children!   Hello, father (lit: 'Are you there?')!

The seventh function of the oblique case is to mark nouns coming after any of the following five prepositions: *akɪlɔ* 'instead of' and *(i)kóteré* 'because of' (from Teso-Turkana), *gone* 'until/up to', *ń⸜da* 'and/with', and *páka* 'until/up to' (from Swahili). Three other prepositions take the genitive case (see §8.5). The fact that the oblique case is used after mostly-borrowed prepositions confirms that the oblique is a case for 'left-over' case functions.

Examples of *páka*, *(i)kóteré*, and *gone* are shown below with the oblique:

(47) *Tubini ntsia toroɓo paka ak.*

    túb-ini   ntsí-á   toroɓ-ó   páka   akᵃ

    follow-SEQ he-ACC breastbone-INS until   mouth[OBL]

    It (i.e. urine) followed the center of his torso down to his mouth.

(48) *Ɲapei nee Lokinenee paka Lopokok...*

    ɲapei   né-é   lokinéné-é   páka   lopokókᵒ...

    from   here-DAT Lokinene-GEN until   Lopokok[OBL]

    From here in Lokinene up to Lopokok...

(49) *Kotere is? Kotere kainika ni gaan.*

    kóteré   is   kóteré   kaɪn-ɪka=ní   gaan-�放

    because.of what[OBL] because.of year-PL[OBL]=REL.PL bad-REAL

    Because of what? Because of bad years.

(50) *Iryametia fiyekesie ncie kotere kiroti nci.*

    iryam-et-í-á   fiyek-esí-é   ɲci-e kóteré kirotí   ɲci-放

    get-VEN-1SG-REAL live-INF-DAT I-GEN b'se.of sweat[OBL] I-GEN

    I get my livelihood because of my own sweat.

(51)   *Koyaa gone at, gone seda ɟakamae.*
    ƙó-i-a   gone   át^i   gone   séda   ɟák-áma-^e
    go-1SG-SEQ up.to   FILL[OBL]   up.to   garden[OBL]elders-SING-GEN
    And I went up to the, um...the garden of the elder.

(52)   *Atsini gone ndai?*
    ats-ini   gone   nda^i
    come-SEQ   up.to   where[OBL]
    And they came up to where?

The preposition *ń⁺da* 'and/with' is often used elsewhere as a connective to join whole independent clauses (see §10.1.10. But the following examples show it preposed to nouns or noun phrases taking the oblique case:

(53)   *Atsese gone awa toroɓo nda ɲoropʉo...*
    ats-ese   gone   awa   toroɓ-o   ń⁺da   ɲorópúó...
    come-SPS   up.to   home[OBL] breastbone-INS and   organs[OBL]
    And people came up to home with the breastbone and the organs...

(54)   *Kaini kot nda kokesi hoikee dii.*
    ƙa-ini=kotᵒ   ń⁺da   kɔk-ésí   hó-íke-e=⁺díí
    go-SEQ=ADV   and   close-INF[OBL] house-PL-GEN=ANPH.PL
    And then they went and closed up those houses.

In some instances, though, a noun in another case other than the oblique can be found after *ń⁺da*. This happens when a verb 'sees through' *ń⁺da* to assign a case role. In the following example, the verb *egini* assigns the dative case to mark its conjoined complex indirect object (with a Goal role):

(55)   *Egini guritinie nda ŋatametaak.*
    eg-ini gúr-ítíní-e   ń⁺da   ŋátámɛtaá-kᵉ
    put-SEQ heart-PL-DAT   and   thoughts-DAT
    And they put (it) in their hearts and thoughts.

6.3.2 Nominative

The nominative case suffix {-a} has engendered more than its share of confusion in the descriptive literature. Referring to this morpheme, Heine & König state that "Like Crazzolara, we consider the 'complemental suffix' to be a functionally empty appendage of nouns...in their unmarked form. Accordingly, it is interpreted as a morphologically redundant ending..." (1996:137). Later, the segmental similarity between the nominative {-a} and the accusative {-(k)a} led to the following comment (König 2008:73):

> "The final vowel -*a* has a unique value in the system. All words or particles of the language end by default in the vowel -*a*, and so are nominative and accusative case forms (in the non-final form). It remains unclear whether the -*a* of the nominative and accusative is triggered by the general rule of the language to use vowel -*a* as a default ending of each word or whether -*a* has the value of an independent case suffix encoding nominative or accusative."

By contrast, the claim made in this grammar is that the morpheme {-a} is functionally very significant, as both a marker of nominative case and realis modality in the verbal system (§7.6.2). This morpheme has a L tone but assimilates to the tone melody projected by the stem it attaches to (T7). It is one of the language's opaque dominant suffixes (§3.1.3), and as such can also be represented as {-a$^+$}. One if the nominative's characteristics that has produced confusion in the past is its subtraction of stem-final vowels. It and the instrumental case suffix {-ɔ} are the only two cases that do this. Before pauses, the nominative surfaces as /-^{a}/ or /-∅/. Lastly, if a noun's final vowel is a back vowel, it may desyllabify before {-a}:

(56) *Nominative case paradigm*

Basic form-NOM	Non-final	Final	Gloss
ŋókɪ́-a	ŋók-á	ŋók-ᵃ	'dog'
sɪsɪ́-a	sɪs-a	sɪs-∅	'honey-beer'
ɓóré-a	ɓór-á	ɓór-∅	'corral'
ɲɛƙɛ-a	ɲɛƙ-a	ɲɛƙ-ᵃ	'hunger'
ŋʊrá-a	ŋʊr-a	ŋʊr-∅	'cane rat'
zɪnɔ́-a	zɪn-a	zɪn-∅	'zebra'
ɗéró-a	ɗérw-á	ɗérw-ᵃ	'rat'
kafʊ-a	kaf-a	kaf-∅	'thorn'
dakú-a	dakw-a	dakw-ᵃ	'tree

On stems with back vowels (/ɔ, o, ʊ, u/) as their final vowel, one cannot predict whether the vowel will be deleted or desyllabified. Out of a sample of sixty-eight nouns ending in a back vowel, only the following fifteen (22%) underwent desyllabification (in order of root-final back vowel):

(57) *Desyllabification of back vowels in the nominative case*

cikó-	→	cikw-a	male-NOM
diyo-	→	diyw-a	lookout-NOM
ído-	→	ídw-a	milk-NOM
ínɔ́-	→	ínw-á	animal-NOM
natsiko-	→	natsikw-a	granary.cover-NOM
paɗo-	→	paɗw-a	small.cave-NOM
pakó-	→	pakw-a	cave-NOM
tsɪƙɔ́-	→	tsɪkw-a	tree.species-NOM
mízɪʒɔ-	→	mízɪʒw-a	tree.species-NOM
ɗaʊ-	→	ɗaw-a	knife-NOM
káú-	→	káw-á	ash-NOM
dakú-	→	dakw-a	tree-NOM
ekú-	→	ekw-a	eye-NOM
buƙú-	→	buƙw-a	marriage-NOM
ɛkɛʊ́-	→	ɛkɛw-a	muscle.fiber-NOM

Contrary to the nouns in (57), most nouns ending in a back vowel lose the vowel entirely in the nominative and instrumental cases (see next section), as in *sɔkɔ́-* → *sɔk-a* 'root-NOM' and *habu-* → *hab-a* 'tree.hive-NOM'. Looking at nouns that delete their final vowel versus those that desyllabify it, the reason for this discrepancy is not obvious. It likely represents a historical morphological change toward or away from desyllabification. That nominative-case desyllabification is lexical and not post-lexical is shown by the fact that compensatory lengthening does not occur on the case suffix. Back vowels also desyllabify after the non-final accusative case allomorph /-a/, but when they do, compensatory lengthening occurs. For example, compare *dakú-* 'tree' as *dakw-a* 'tree-NOM' and as *dakw-áá* 'tree-ACC'.

The nominative case marks out the following five grammatical functions:

(58) *Nominative case grammatical functions*

1	The citation or isolation form of nouns.
2	The subject (A/S) of indicative main clauses.
3	The subject (A/S) of sequential subordinate clauses.
4	The object (O) of transitive clauses with 1-2 person subjects.
5	A fronted (left-dislocated or apposed) argument.

The first function—marking a noun's citation or isolation form—is clearly seen with isolated nouns (57 above) or in response to *Isio ɗa* 'What is it?':

(59)   Isio ɗa?   'What is it?'   →   Ŋók^a 'a dog'

The second function—marking the subject (A/S) of indicative main clauses—is the most common function of the nominative case, e.g.:

(60)   *Ƙaa naa roɓa ndaik?*
        ƙa-a = náa   roɓ-a$_s$ ndaí-k^e
        go-REAL = PST1   people-NOM   where-DAT
        Where did the people go?

(61) *Iya noo koto ɲeka ʐuk.*

i-a = noo = kóto   ɲɛƙ-a$_S$ ʐuk^u

be-REAL = PST3 = ADV   hunger-NOM   very

There was a lot of hunger then.

(62) *H'yea noo ntsiceka ʝii naperitik.*

fiye-a = noo   ntsí-cék-a$_A$ = ʝɪɪ   napériti-k^a$_O$

know-REAL PST3 he-woman-NOM = also   camp-ACC

His wife also knew the campsite.

The third function of the nominative is to mark the subject (A/S) of preposed (non-chained) subordinate clauses with sequential verbs:

(63) *Na kiʝa ɓetsuƙotuo,...*

na = kíʝ-á$_S$ ɓets'-úƙót-u-o

CONJ = land-NOM   white-COMP-3SG-SEQ

When the land gets light,…

(64) *Na tsora iwuo leŋaa,...*

na = tsɔ́r-á$_A$ iw-u-o   lɛŋá-á$_O$

CONJ = baboon-NOM hit-3SG-SEQ ratel-ACC

When the baboon hit the ratel,…

The fourth function—marking the object of first or second person subjects— is illustrated below. As further discussed in §6.3.6, a third person subject always takes an object in the accusative case. But in clauses with first or second-person subjects, both A and O are in the nominative:

(65) *Nta nka wetiii idw.*

ńt-á   ŋk-a$_A$ wet-í-íí   ídw-^{a}$_O$

not-REAL   I-NOM   drink-PLUR-1SG milk-NOM

I don't usually drink milk.

(66) *H'yeida ama na.*
      ɲye-íd_A-a   ám-á_O=na
      know-2SG-REAL person-NOM=DEM.SG
      You know this person.

(67) *Beɗima ƙoona Kaaɓoŋie ts'oo.*
      bɛ́ɗ-ím_A-a   ƙo-on-a_O   kaaɓóŋi-e   ts'ɔɔ
      want-1PL.EXC-REAL   go-INF-NOM   Kaabong-DAT   now
      We want to go to Kaabong now.

The fifth function of the nominative case—marking a fronted argument (often followed by a pronoun in the copulative case)—is illustrated below:

(68) *Roɓa nii, ntuo bee ƙaata Kalapataak.*
      roɓ-a=níí   ńtú-o=bee   ƙá-át-a   kalapataa-k^e
      people-NOM=DEM.PL   they-COP=PST2   go-3PL-REAL Kalapata-DAT
      These people, it was they who went to Kalapata yesterday.

(69) *Oŋoraa, saɓukotaa noo muɲu Icekiɟao.*
      oŋor-aá   sáɓ-úƙot-a-a=noo   muɲu   icé-kíɟa-^o
      elephant-NOM   kill[PL]-COMP-IPS-REAL=PST3 all   Ik-land-ABL
      Elephants, they were all killed off in Ikland.

6.3.3 Instrumental

The instrumental case suffix {-ɔ} may have an areal parallel in the South Omotic language Dime's locative suffix *-ó* (Mulugeta 2008:55)—no other possible links have been identified. Regardless, the Ik suffix has L tone but may take a H projected by the noun stem's melody. It is a recessive suffix harmonizable to /-o/ by a [+ATR] stem. Like the nominative, it deletes the noun stem's final vowel. Before a pause, the instrumental suffix is devoiced to /-ᵓ/ or /-°/. And in these final form allomorphs, it may be reduced

phonetically to mere labialization on the stem-final consonant (especially nasals). Often, the labialization is not audible at all but only visible.

An interesting further trait of the instrumental suffix is that, while it is devoiced before a pause, it is never deleted. Even if devoiced, it minimally leaves a trace of labialization. So this is an example where the grammar overrides its tendency to delete devoiced vowels for the sake of meaning. For if {-ɔ} was allowed to be deleted, it would be ambiguous with the nominative case suffix which may be fully deleted. The following table shows the presence of the suffix, irrespective of the preceding consonant:

(70)   *Instrumental case paradigm*

Basic form-INS	Non-final	Final	Gloss
ŋókí-ɔ	ŋók-ó	ŋók-ᵒ	'dog'
sɪsí-ɔ	sɪs-ɔ	sɪs-ᵓ	'honey-beer'
ɓóré-ɔ	ɓór-ó	ɓór-ᵒ	'corral'
ɲɛƙɛ-ɔ	ɲɛƙ-ɔ	ɲɛƙ-ᵓ	'hunger'
ŋʊrá-ɔ	ŋʊr-ɔ	ŋʊr-ᵓ	'cane rat'
zɪnɔ́-ɔ	zɪn-ɔ	zɪn-ʷ	'zebra'
ɗéró-ɔ	ɗér-ó	ɗér-ᵒ	'rat'
kafʊ-ɔ	kaf-ɔ	kaf-ᵓ	'thorn'
dakú-ɔ	dak-o	dak-ᵒ	'tree'

The instrumental case has the grammatical function of marking a non-core argument expressing any of the following six semantic roles:

(71)   *Instrumental case semantic roles*
1   Instrument/Means
2   Path
3   Comitative
4   Manner
5   Time
6   Occupative Aspect

First, the instrumental case is used to encode peripheral arguments that denote an Instrument or Means by which an action is realized. The following two sentences illustrate this specifically 'instrumental' case role:

(72)   *Kokese akina makulik.*
       kɔk-ɛsɛ   ak-ɪn-a   makúl-ík-º
       close-SPS   mouth-POSS.PL-NOM   grass.over-PL-INS
       And its openings were closed with grass covers.

(73)   *Taa buƙa noo bia ino tana?*
       taa   buƙ-a=noo   bi-a   ín-ó   taná-∅
       QUOT   marry-REAL=PST3 you-ACC   animal-INS how.many-REAL
       So he married you with how many animals?

A culturally relevant usage of the instrumental case to encode the Means role involves the verb *bír-és* 'to avail, assist with'. In Ik collective society, one is expected to share any acquired resources, from snuff tobacco to meat to clothing to water, etc. The preferred phrase used to acquire assets from another person is constructed with the formula *bírέ* NP[OBL] NP-INS, in other words "Assist me/us with X." A couple of examples will suffice:

(74)   *Bire nci cwo.*
       bír-έ   ɲci   cu-º
       assist-IMP.SG   I[OBL]   water-INS
       'Assist me with water (or 'Give me water.').

(75)   *Biroo ŋgo nkaƙ.*
       bír-ɔ́ɔ   ŋgo   ŋƙáƙ-º
       assist-IMP.PL   we.EXC[OBL] food-INS
       'Assist us with food (or 'Give us food.').

When requests like the one in (74) are made, the peripheral argument may be dropped. This formulaic request is so often used it is typically

phonetically reduced to something like [bríɲcˀ]. Such a reduced surface form seems to have given rise to the phrase *brinji lotop* 'Give me tobacco' of Colin Turnbull's fame (1972:299). His phrase can actually be parsed as:

(76) *"Brinji lotop."*

bír-ɛ́   ɲci   lɔtɔɓ-ᵓ   →   [bríɲtʃi̧ lɔtɔɓ̧ˀ]

assist-IMP.SG   I[OBL]   tobacco-INS

'Assist me with tobacco (or 'Give me tobacco.').

Second, the instrumental case is used to encode peripheral arguments that denote a Path: a place by or through which a motion or action is realized:

(77) *Atsimaa sabo didik.*

ats-ima-a   sab-o   didi-kᵉ

come-1PL.EXC-SEQ   river-INS   up-DAT

And we came up by way of the river.

(78) *Ŋatiini awoo xaino gai.*

ŋat-í-íni   awó-ó   ʃa-in-o   ꜜgáí

run-PLUR-SEQ   home-ABL   direction-POSS.PL-INS   both

And they ran from the home by way of both directions.

Thirdly, the instrumental case is used to encode peripheral arguments that denote an entity with which an agent goes somewhere. This role is 'instrumental' in that the agent takes an object somewhere by the hand to thereby achieve some goal. This case role is most common with inanimate objects or animate entities that have little control over the event. The following two sentences show this Comitative role of the instrumental case:

(79) *Koyaa naa kuruɓad.*

ƙó-í-a=naa   kúrúɓád-ᵒ

go-1SG-REAL=PST1   things-INS

I went with (my) things.

(80) *Atsuo eakwa ƙayuo nk, zeiike ɟik.*

ats-u-o	ẹakw-a	ƙa-i-o	ŋk-ᵒ	ze-íí-ke	ɟíkᴵ
come-3SG-SEQ	man-NOM	go-3SG-SEQ	I-INS	big-1SG-SIML	ADV

And the man came and went with me, I being quite grown up.

The use of the instrumental case in (80) indicates that once a dowry was paid, the woman had less control over her going since she was being led away as the property of the man. If she had gone fully on her own accord, it may have been worded instead as *ńᵗda ɲcⁱ* 'with me'.

Fourthly, the instrumental case is used to encode peripheral arguments that denote the Manner or the way in which an action is accomplished. Such arguments have an adverbial function in that they modify the semantics of the main verb, giving information on how an action is realized:

(81) *Raɟetuo ebitini nayee ɲeryaŋie batanon.*

raɟ-et-úó	έb-ɪtíní	naí-é	ɲεryaŋí-έ	batán-ón-ʷ
return-VEN-IMP.PL	gun-PL[OBL]	place-DAT	g'ment-GEN	be.easy-INF-INS

Turn in the guns to the government easily (i.e. without problems).

(82) *Sea ni ɗuo kutanee Hyotodo ŋapeon.*

se-a=ni	ɗú-ó	kʊt-an-é=e	ɦyɔ-tod-o	ŋápεɔn
blood-NOM=DEM.PL	PRO.PL-COP	say-IPS-REAL=DP	cow-talk-INS	ŋapeon

This blood is the one called *ŋapeon* in the Karimojong language.

As shown in (82), 'in X language' is rendered in Ik with the name of the language plus the instrumental case, here "by 'cow talk'", i.e. Karimojong.

Fifthly, the instrumental case is used to encode peripheral arguments that denote the Time during which an activity or state takes place. This case role is 'instrumental' in that a given period of time is used as chronological space through which an event or activity can be achieved:

(83) *Nanoo koto ɲɛkea gaaniyee kainiko dii.*

na = noo = kótó   ɲɛkɛ-a   gaan-i-é = e   kaín-ík-o = ˈdíí
CONJ = PST3 = ADV hunger-ACC bad-PLUR-REAL = DP year-PL-INS = ANPH
So when hunger had gotten bad in those years...

(84) *Hakwiana aɗo aƙwedo kainie kon.*

hakw-í-án-a   aɗ-o   áƙw-ɛd-ɔ   kaɪní-ɛ́ kɔn-∅
gather-PLUR-IPS-REAL three-INS inside-POSS.SG-INS year-GEN one-REAL
They [white-ants] are usually gathered three times in one year.

Lastly, the instrumental case is used to mark arguments in a special syntactic construction used to express Occupative Aspect (§9.5.3). The construction is made up of the verb *cɛm-* 'fight' and a nominalized verb in the instrumental case. So a clause like 'He is working' is rendered in Ik as 'He is fighting with work'. The following three sentences illustrate this role:

(85) *Cema saa ibito waicikae.*

cɛm-a   sa-a   íbit-o   wa-ɪcíká-ᵉ
fight-REAL   some-NOM   planting-INS   greens-PL-GEN
Some (others) are planting greens (i.e. 'fighting with planting').

(86) *Cemesoo didia wat.*

cɛm-ɛ́s-ɔ́-ɔ   didi-a   wat-º
fight-IPFV-3SG-SEQ   weather-NOM   raining-INS
And it was raining (i.e. 'fighting with raining.').

(87) *Cemetoo imaɗ.*

cɛ́m-ɛ́t-ɔ-ɔ   ɪmáɗ-ᵓ
fight-INCH-3SG-SEQ   dressing-INS
And he began dressing (a wound) (i.e. 'fighting with dressing').

6.3.4 Ablative

Like the instrumental, the ablative case suffix has the form {-ɔ}. It has a likely parallel in the Lowland Cushitic language Saho where the suffix -*ko* is the bound form of a 'source marker' (Banti & Vergari 2005:14). If these forms are cognate, that would explain why the Ik ablative suffix does not subtract the stem-final vowel: In an older form as *-kɔ*, it would have required that vowel to break up a disallowed CC cluster. Another potential parallel is the locative suffix -*ó* in South Omotic Dime (Mulugeta 2008:55).

The ablative case suffix has a L tone but may take a H depending on the tone melody of the stem (T7). It is recessive in terms of vowel harmony, but harmonizes to /-o/ when attached to a [+ATR] stem. The crucial morphological difference between the ablative and instrumental suffixes is that, unlike the instrumental, the ablative does not subtract the nominal stem-final vowel. Instead, the final vowel remains. Before a pause, the ablative suffix is devoiced to /-ᵊ/ or /-°/. And if the ablative suffix attaches to a stem ending in a high back vowel (/ɔ, o, ʊ, u/) before a pause, it may not be heard audibly at the surface level of pronunciation (i.e. [-∅]:

(88)   *Ablative case paradigm*

Basic form-ABL	Non-final	Final	Gloss
ŋókí-ɔ	ŋókí-o	ŋókú-∅	'dog'
sɪsí-ɔ	sɪsɔ́-ɔ́	sɪsú-∅	'honey-beer'
ɓóré-ɔ	ɓóré-o	ɓóré-°	'corral'
ɲɛƙɛ-ɔ	ɲɛƙɔ-ɔ	ɲɛƙɛ-ᵊ	'hunger'
ŋʊrá-ɔ	ŋʊrɔ́-ɔ́	ŋʊrá-ᵊ	'cane rat'
zɪnɔ́-ɔ	zɪnɔ́-ɔ́	zɪnɔ́-∅	'zebra'
ɗéró-ɔ	ɗéró-o	ɗéró-∅	'rat'
kafʊ-ɔ	kafʊ-ɔ	kafʊ-∅	'thorn'
dakú-ɔ	dakú-ó	dakú-∅	'tree'

As (88) shows, the ablative suffix is involved in several kinds of vowel assimilations (see §2.9.4). For example, if the final vowel of a nominal stem in a phrase-medial position is /ɪ/ or /a/, these two vowels get totally assimilated to the ablative suffix (see *sɪsí-* 'honey-beer' and *ŋʊrá-* 'cane rat'). Also, if the final vowel of a nominal stem in a phrase-final position is /i/ or /ɪ/, these vowels get partially assimilated to /u/ and /ʊ/ respectively.

In terms of grammatical function, the ablative case is used to mark non-core clause arguments with 'from' or 'at' semantic roles including the following:

(89)   *Ablative case semantic roles*

1	Source
2	Cause
3	Stimulus
4	Location
5	Experiencer

First, the ablative case is used to mark peripheral arguments that encode the physical or geographical Source of an action or motion. The following sentences illustrate this prototypical ablative role:

(90)   *Atsia naa awoo ne*
        ats-í-á꞊naa   awó-ó꞊ne
        come-1SG-REAL꞊PST1   home-ABL꞊DEM.SG.MED
        I came from that home.

(91)   *Kanetaa ɟumʊɟumasia cuaako.*
        ƙan-et-á-á   ɟumʊɟum-así-a   cuá-áƙɔ-∅
        take-VEN-REAL-PRF   sand-ABST-ACC   water-inside-ABL
        He has taken sand out of the water.

Second, the ablative case is used to mark peripheral arguments that encode the Location of an action or state. The first two sentences below illustrate this role with intransitive verbs, while the second two do it with transitives:

(92)   *Sarata epa hoikao.*
       sár-át-a   ep-a   hó-íka-ᵒ
       still-3PL-REAL   sleep-REAL   hut-PL-ABL
       They are still sleeping in the huts.

(93)   *Iwiya ceŋa nee ɓeƙesanee muceeo.*
       iw-i-a   cɛŋ-a   néɛ́ ɓɛƙɛ́s-án-é=e   muceé-ᵒ
       hit-PLUR-REAL   woodpecker-NOM   CONJ walk-IPS-REAL=DP path-ABL
       The woodpecker makes a call when people are walking on the path.

(94)   *Ceyoo fetieku!*
       cɛ-íɔ́   fetí-éku-ᵒ
       kill-IMP.PL   sun-eye-ABL
       Kill from the East (lit. 'sun-eye')!

(95)   *Italiana nƙaƙa ɗaɗee dakugwariao.*
       ɪtál-í-an-a   ŋƙáƙ-á   ɗaɗe-e   dakú-gwaría-ᵒ
       forbid-PLUR-IPS-REAL eating-NOM   honey-GEN   tree-top-ABL
       It is forbidden to eat honey in the top of the tree.

Third, the ablative case is used to mark peripheral arguments with the semantic role of Cause, which can be animate or inanimate. The next two sentences illustrate the role of Cause with animate entities. Keep in mind that this construction is susceptible to interpretation as encoding the demoted agent of a passive. This view is perpetuated, for example, in Heine & König (1996:33), but Ik speakers insist that strictly cause, not agency, is in expressed by the ablative. Cause and agency are semantically related, of course. But while an agent is also a cause, a cause need not also be an agent:

(96)   *Detosa waicika ni ncu.*

det-ós-á   wa-icik-a=ni   ɲcu-∅

bring-PASS-REAL greens-PL-NOM=DEM.PL   I-ABL

These greens are brought because of me (**by me).

(97)   *Kawimetaa tsuura na ntsu.*

kaw-im-et-á-á   tsúúr-a=na   ntsú-∅

cut-MID-INCH-REAL-PRF   acacia.sp-NOM=DEM.SG   he-ABL

This acacia has been cut down because of him (**by him).

And the next two sentences illustrate Cause with inaminate entities:

(98)   *Baduƙota noo ɲeɗekeeo.*

bad-úƙót-a=noo   ɲeɗɛkɛɛ́-ʾ

die-COMP-REAL=PST3   disease-ABL

He died from disease.

(99)   *Boretiaa ɓeƙesu.*

bɔ́r-ɛ́t-í-a-a   ɓɛƙ-ɛ́sú-∅

tire-INCH-1SG-REAL-PRF   walk-INF-ABL

I am tired from walking.

The fourth semantic role encoded by the ablative is the Stimulus role. For example, the verbs *mor-* 'fear, respect' and *ʃɛɓ-* 'be shy, afraid' take a peripheral argument in the ablative case. This peripheral argument provides the Stimulus for the sensation of fear or timidity, as in:

(100) *Itaamana moriduo baboo nda ŋo.*

ɪtámáán-á   mor-idu-o   bábo-o   ńda ŋó

behoove-REAL   fear-2SG-SEQ your.father-ABL and your.mother[OBL]

You must respect your father and your mother.

(101) *Xeɓa kironu.*

ʃɛɓ-a   ƙír-onu-∅

fear-REAL   thunder-INF-ABL

She's afraid of thunder.

Fifth, the ablative case is used to mark non-core arguments that encode the semantic role of Experiencer, a metaphorical extension of Location. The Experiencer in this usage senses or perceives something and forms an opinion of it. The following two sentences illustrate this ablative case role:

(102) *Daa aminu.*

da-a   ám-ínu-∅

nice-REAL   person-POSS.PL-ABL

It's nice to those concerned.

(103) *Gaana ncu.*

gaan-á   ɲcu-∅

bad-REAL   I-ABL

It's bad to me.

Finally, the verb *bɪrá-* 'to lack' or 'to not be there' selects the ablative case to mark animate (Experiencer) or inanimate locations of lack (Location or Source). The two sentences below illustrate this important semantic role:

(104) *Biraa cikama ntu.*

bɪra-a   cɪkám-á   ńtú-∅

lack-REAL   women-NOM they-ABL

They don't have wives.

(105) *Biraata awikoo ni muɲ.*

bɪrá-át-a   aw-iko-o=ni   muɲ

lack-3PL-REAL   home-PL-ABL=DEM.PL   all

They are lacking in all these homes.

6.3.5 Genitive

The genitive case suffix has the form {-ɛ}. It is possible that this morpheme is a reflex of the ancient Eastern Sudanic genitive case marker *-ɪ/i (Dimmendaal 2010:34). A similar form (-i) is found in the Cushitic languages Afar, Beja, and Bilin. Another promising connection is with the Shabo (Nilo-Saharan or unclassified) genitive marker -ke (Teferra 1991:9). This connection is appealing because it could help explain why the Ik genitive suffix does not subtract the stem-final vowel. If an older form was *-kɛ, then the stem-final vowel would be kept to prevent a CC cluster.

The genitive suffix has a L tone but can take a H depending on the melody of the preceding stem (T7). It is recessively [-ATR] but can harmonize to /-e/ when afffixed to [+ATR] stems. Like the ablative, the genitive suffix does not subtract the stem-final vowel. And before a pause, the genitive is devoiced to /-ᵉ/ or /-ᵉ/. When the stem ends in non-low front vowel, it is usually inaudible [-∅]. And when a noun stem ends in a high back vowel, that vowel may desyllabify to [w] causing compensatory lengthening on the following genitive suffix. Lastly, the genitive suffix may totally assimilate a stem-final /a/ or other [-ATR] vowel in non-final noun forms.

(106) *Genitive case paradigm*

Basic form-GEN	Non-final	Final	Gloss
ŋókí-ɛ	ŋókí-e	ŋókí-∅	'dog'
sɪsí-ɛ	sɪsé-ɛ́	sɪsí-∅	'honey-beer'
ɓóré-ɛ	ɓóré-e	ɓóré-∅	'corral'
ɲɛɓɛ-ɛ	ɲɛɓɛ-ɛ	ɲɛɓɛ-∅	'hunger'
ŋʊrá-ɛ	ŋʊré-ɛ́	ŋʊrá-ᵉ	'cane rat'
zɪnɔ́-ɛ	zɪnɔ́-ɛ́	zɪnɔ́-ᵉ	'zebra'
ɗéró-ɛ	ɗéró-e	ɗéró-ᵉ	'rat'
kafʊ-ɛ	kafʊ-ɛ/kafw-ɛɛ	kafwɪ-∅	'thorn'
dakú-ɛ	dakú-é/dakw-éé	dakwí-∅	'tree'

The genitive case in Ik has two grammatical functions:

(107) *Genitive case grammatical functions*

1	To mark the nominal modifier of a noun phrase head
2	To mark the complement of a similative clause

In the genitive's first function—to mark a noun dependent on its noun phrase head—the genitive-marked noun encodes Possession broadly construed, including notions of ownership, whole-part, kinship, attribution, orientation, association, and nominalization; see also §9.2:

(108) Ownership: *Kisanini kuruɓadiicikaa nti.*

kisán-íni   kúrúɓádi-icíká-a   ńtí-∅
divide-SEQ   things-VAR.PL-ACC   they-GEN
And they divided up their various things.

(109) Whole-part: *Zikini deikaa ntsi.*

zík-ɪnɪ   dɛ-ɪka-a   ntsí-∅
tie-SEQ   leg-PL-ACC   he-GEN
And they tied up his legs.

(110) Kinship: *Nakwita imaa ntsi.*

naƙw-ɪt-a   imá-á   ntsí-∅
suck-CAUS-REAL child-ACC   s/he-GEN
She nurses her child.

(111) Attribution: *Gaana ɲepitea dee bie.*

gaan-a   ɲɛpɪtɛ-a = ꜜdéé   bi-e
bad-REAL   manner-NOM = ANPH.SG   you.SG-GEN
That behavior of yours is bad.

(112) Orientation: *Iya kanedee awae.*

i-a   kán-é⁺dé-e   awá-ᵉ

be-REAL back-POSS.SG-DAT   home-GEN

It's at the back of the home.

(113) Association: *Eja ceida loŋotoma ngoe.*

ej-á   cɛ-íd-a   lɔŋɔ́t-ɔ́m-a   ŋgó-ᵉ

not-REAL kill-2SG-REAL enemy-SING-NOM we.EXC-GEN

Don't kill our enemy (the one we captured)!

(114) Nominalization: *Nda ikamesuƙoti ɲokokoroe.*

ń⁺da   ɪkam-és-úƙɔtɪ   ɲɔ́kɔkɔrɔ́-ᵋ

and   catch-INF-COMP[OBL]   chicken(s)-GEN

And they caught the chickens.

In Ik, nouns with the genitive case can also modify a noun phrase head that is left implicit. The omitted NP must be the complement of a copular verb like *mɪt-* 'be sb. or sth.' or *bení-* 'not be sb. or sth.', for example:

(115) *Benia ngoe.*

beni-á   ŋgó-ᵉ

not.be-REAL we.EXC-GEN

It is not ours (lit. 'It is not X of ours').

(116) *Mita roɓee ni wetiat.*

mɪt-a   róɓe-e = ni   wet-í-át-ᵃ

be-REAL   people-GEN = REL.PL drink-PLUR-3PL-REAL

It (i.e. tobacco) is of people who snuff (lit. 'drink') regularly.

One of the language's strategies for coordinating and subordinating clauses is to nominalize a clause's verb into an infinitive (as in example 114 above). When this happens, the subject and object (if present) of the nominalized verb follow it in the genitive case, as shown in (117) and (118) below:

(117) *Arutetona ebee,...*

    arút-ét-on-a   ɛ́ᵗbɛ-ɛ́

    sound-INCH-INF-NOM   gun-GEN

    At the sound of a gunshot (lit. 'the sounding of a gun'),...

(118) *Nda ƙooni ntie sabak.*

    ń⁺da   ƙo-oni   ńtí-e   saba-kᵉ

    and   go-INF[OBL] they-GEN   river-DAT

    And they went to the river (lit. 'and the going of them to the river').

In another special construction, the roles of the NP head and genitive modifier can be reversed so that the possessor is now the head. The sentence in (119) shows the noun *ámá-* 'person' modified by the 'one' (*kɔní-*), even though it is *ámá-* that is in the genitive case. Then in (120), the pronominal form *ntsɛ́ní* modifies *ɲeɓuryaɲíᵉ*, though the latter is in the genitive:

(119) *Atsuo kona amae.*

    ats-u-o   kɔn-a   ámá-ᵉ

    come-3SG-SEQ   one-NOM   person-GEN

    Another person should come.

(120) *Ŋana nda ntseni ɲeɓuryaɲi.*

    ŋan-a   ń⁺da   nts-ɛ́ní   ɲeɓuryaɲí-∅

    each-NOM with   s/he-PSSM[OBL] container-GEN

    Each person with his or her own (snuff) container.

Besides Possession, the second grammatical function of the genitive is to mark the complement of a similative clause. Similative clauses in Ik are formed with the special verb *ƙám-* 'be like' (cf. Swahili *kama* and West Rift Cushitic *qoom-*). Similative clauses have the schema 'X is like Y', where X is in the nominative case and Y in the genitive case. This in interestisng example of a genitive used as a clausal argument instead of an NP modifier:

(121) *Kamata dziberikae.*

ɠám-át-a   dzibér-íka-ᵉ

be.like-3PL-REAL   axe-PL-GEN

They are like axes.

(122) *Biraa keda ɠamad.*

bıra-a   ké'd-a   ɠám-á = dᵉ

not.be-REAL   way-NOM   be.like-REAL = DP

There is nothing it is like.

In (122), the verb *ɠám-* is in a relative clause (without a relative pronoun) modifying the word *kédᵃ* 'way, manner'. Because the complement of the similative relative clause is missing from the relative clause, the dummy pronoun (DP) is used to mark its absence (see §5.10).

6.3.6 *Accusative*

The accusative case suffix has the form {-ka}, and as such, is one of three Ik case suffixes that consist of /k/ plus a vowel (the other two being the dative and the copulative, described below). Potential parallels for this suffix are widespread in the general Ethio-Sudanic language area. For Nilo-Saharan accusative cases, "the widest-spread marker is a velar, occurring in at least six of twelve families; it seems safe to assume this is a reflex of the proto-form" (Dimmendaal 2010:30), which Ehret reconstructs as *-kɔ (2001:203). Besides Ik, Shabo (Nilo-Saharan or unclassified) has *-kak* or *-k* as an object/accusative marker (Teferra 1991:9). And the Cushitic language Afar marks objects on the verb with the morpheme *-aka* (Mahaffy n.d., p. 29).

The Ik accusative suffix has a L tone but may take a H tone according to the stem's tone melody (T7). It is one of the language's opaque dominant [+ATR] suffixes and thus can also be represented as {-ka⁺}. Any recessive enclitic following the accusative suffix will surface as [+ATR].

It does not delete the final vowel of the stem but instead attaches directly to it. Before a pause, the vowel of the suffix devoices, changing the suffix to /-kᵃ/ or /-kˑ/. And within a phrase, the suffix loses the /k/, changing the suffix simply to /-a/. If the stem-final vowel is a high back vowel, it may desyllabify and cause the accusative suffix to lengthen in compensation:

(123)   *Accusative case paradigm*

Basic form-ACC	Non-final	Final	Gloss
ŋókí-ka	ŋókí-a	ŋókí-kᵃ	'dog'
sɪsí-ka	sɪsí-á	sɪsí-kᵃ	'honey-beer'
ɓóré-ka	ɓóré-a	ɓóré-kᵃ	'corral'
ɲɛkɛ-ka	ɲɛkɛ-a	ɲɛkɛ-kᵃ	'hunger'
ŋʊrá-ka	ŋʊrá-á	ŋʊrá-kᵃ	'cane rat'
zɪnɔ́-ka	zɪnɔ́-á/zɪnw-áá	zɪnɔ́-kᵃ	'zebra'
ɗéró-ka	ɗéró-a/ɗérw-áa	ɗéró-kᵃ	'rat'
kafʊ-ka	kafʊ-a/kafw-aa	kafʊ-kᵃ	'thorn'
dakú-ka	dakú-á/dakw-áá	dakú-kᵃ	'tree'

In terms of grammatical function, the accusative case in Ik is used to mark core clausal arguments, namely the following:

(124)   *Accusative case grammatical functions*

1	Direct object (O) of a transitive clause with a 3SG/PL subject
2	Direct object (O) of all subordinate clauses
3	Subject (A/S) of any subordinate clause (except sequential)

First, the accusative marks the direct objects (O) of transitive clauses with third person subjects. If the subject of the clause is first or second person, then both the subject and the object(s) take the nominative case (§6.3.1). See, for example, the pattern in the following paradigm, in which the accusative case (underlined) is found only with the third person verb forms:

(125) *Number-based differential accusative marking*

1SG	béɗía ŋƙáƙ-ᵃ	'I want food.'
2SG	béɗída ŋƙáƙ-ᵃ	'You want food.'
3SG	béɗá ŋƙáƙá-<u>k</u>ᵃ	'S/he wants food.'
1PL.EXC	béɗíma ŋƙáƙ-ᵃ	'We want food.'
1PL.INC	béɗísına ŋƙáƙ-ᵃ	'We want food.'
2PL	béɗíta ŋƙáƙ-ᵃ	'You want food.'
3PL	béɗáta ŋƙáƙá-<u>k</u>ᵃ	'They want food.'

Taken from narratives, the following two sentences show the accusative marking the object (O) of transitive clauses with 3SG/PL person subjects:

(126)   *Tsidziteta naa inok.*

tsídz-it-et-a = náá   ínó-kᵃ_O

carry-CAUS-VEN-REAL = PST1   animal-ACC

He flushed out an animal (from a thicket).

(127)   *Ɗamatini awaa bubʊn.*

ɗamat-ini   awá-á_O   bubʊn-ᵓ

shoot-SEQ   home-ACC   coal-INS

And they opened fire on the home (with 'coals' = bullets).

As noted in the Case Overview (§6.1), Ik is classified as a split-accusative language due to this type of number-based differential object marking. While this is the descriptive fact, can any explanation be offered for it? Some attempts can be made, though none are conclusive. König suggests that accusative marking comes into play when cross-referencing 'fails' on the verb (2008:85). That is, if the subject is not cross-referenced on the verb, case is needed to show grammatical relations. But this explanation falls short on two accounts: 1) First, clausal constituent order is not flexible enough to admit the kind of ambiguity implied by König's analysis. 2) The 'failure' of cross-reference (i.e. a zero morpheme) is in itself cross-reference.

Even if a 3SG subject is not cross-referenced—or is so with zero marking—constituent order would tell a speaker what the subject and object were:

(128) *Cea ama idemek.*

cɛ-a   ám-á   ídeme-k[a]

kill-REAL   person-NOM   snake-ACC

A person kills a snake.

(129) ***Cea idemea am.*

**cɛ-a   ídeme-a   ám-∅

**kill-REAL   snake-ACC   person-NOM

**A person kills a snake.

These two sentences illustrates that even with accusative marking, the order of subject and object cannot be reversed. At least synchronically, constituent order is fixed enough to prevent any hypothetical ambiguity arising from case 'defectiveness'. So the split-accusativity of Ik cannot be based only on a need to make up for a failure in subject cross-referencing on the verb.

Taking a different tack, some African languages show a special sensitivity to the notion of 'speech-act participant'. For example, in Turkana, the marking of a direct or indirect object on a verb depends on whether it is a speech-act participant. If it is (1/2 person), it is marked with the verbal prefix *k-*. If not (3 person), no prefix is present (Dimmendaal 1983:124). Inversely, but with the same attention to speech-act participants, the Ik accusative suffix is only present if the clause's subject is *not* a speech-act participant (i.e. 3 person).

Related to this is the idea of 'prototypical transitivity'. According to Næss (2007, quoted in Dimmendaal 2010:39), the prototypical Agent has the semantic features [+volitional], [+instigating], and [-affected]. The converse of this is that the prototypical Patient is [-volitional], [-instigating], and [+affected]. Dimmendaal (2010) explores the application of this for Differential Object Marking (DOM) in Nilo-Saharan.

The claim is that objects that have a more prototypical Patient role are more likely to be marked differently (e.g. with an accusative case) than those without it. Since prototypical Patients are [-volitional], and since volition implies animacy, it is claimed that objects further down the cline toward inanimacy are more likely to be marked differently (Dimm. 2010:39).

The concept of prototypical transitivity seems applicable to Ik split-accusativity, but along slightly different lines. In Ik, volition, instigation, affectedness, and animacy alone do not determine whether an object will be marked with the accusative case or nominative case. By contrast, the only relevant factor is whether the Agent of a transitive clause is present in the conversation, i.e. is a speech-act participant (3 person). If the Agent (animate or inanimate) is not speaker or addressee, then the object must take the accusative case. Thus, taking Ik into account, the feature [±participant] can be added to Næss' definition of prototypical transitivity. An Agent that is not a speech-act participant (3 person) embodies a greater degree of transitivity because its intention (if animate) or capability (if inanimate) is inaccessible and therefore not knowable or assessable. This puts greater semantic 'distance' between the Agent and Patient than if the Agent was a speech-act particpant who could be negotiated with. This, then, is one further attempt to make sense of Ik's person-based split-accusativity.

Another question relevant to the Ik accusative case is what semantic roles the object of a transitive clause can take. This question applies to transitive objects generally, including those marked in the nominative case. Ik direct objects encode the expected semantic role of Patient, but they can also encode Direction and/or Purpose. Three Ik verbs of motion—*ats-* 'come', *ƙa-* 'go', and *ɪtá-* 'reach'—are unusual in that they can behave like transitive verbs. Similar motion-verb properties have been reported as common in Cushitic and Omotic languages (Dimmendaal 2003:100). Old Nubian is reported to have marked Patients and Directions with the suffix *-ka*, while the Semitic language Tigrinya uses its accusative prefix *ni-/nä-* to mark Patients, Directions, and many other roles (Dimmendaal 2010:41).

The following sentences are examples of a) Ik motion verbs functioning as transitive verbs and b) object case (NOM or ACC) marking Direction/Purpose:

(130) *Atsaa ƙanesia kuruɓadie ntsi.*

ats-á-á	ƙan-ésí-a$_O$	kúrúɓádi-e	ntsí-$\varnothing$
come-REAL-PRF	get-INF-ACC	things-GEN	he-GEN

He has come to get his things.

(131) *Kaa naa dzigwa nƙaƙae.*

ƙa-a=náa	dzí⁺gw-aa$_O$	ŋƙáƙá-^{e}
go-REAL=PST1	buy-ACC	food-GEN

He went to buy food.

(132) *Iteesa Kaaɓoŋia ts'oo.*

ɪté-és-á	kaaɓóŋi-a$_O$	ts'ɔɔ
reach-INT-REAL	Kaabong-ACC	soon

He'll reach Kaabong soon.

In none of the preceding three sentences would the dative case be grammatical on the direct object (O) encoding Direction and/or Purpose. These examples are interesting in that the dative case (next section) is used more generally to encode both Purpose and Goal/Direction. It is only the unique combination of these roles that transitivize the verb and objects.

Back to the grammatical functions of the accusative: Its second function is to mark the overt subject (A/S) of any subordinate clause (except those with sequential verb forms). In many subordinate clauses, the subject may be left implicit, though it is always cross-referenced on the verb. When the subject of a subordinate clause is explicit, it comes before the verb, as opposed to after the verb like unmarked main clauses. Turkana is also a VSO language. And it also marks its preverbal subjects with object case, which for it is the 'absolutive', the equivalent of the Ik accusative (Dimmendaal 1983:260).

The next three sentences below illustrate the accusative case marking and preverbal syntactic position of subordinate clause subjects (A/S):

(133) *Naa ɲaɓalaŋitia iwiɗimetik,...*

náa ɲaɓáláŋití-á$_S$ iwiɗ-ím-ét-i-k^e

CONJ soda.ash-ACC pulverize-MID-INCH-3SG-SIML

When the soda ash is ground to a fine powder,...

(134) *Ɗuo nuu didia watad,...*

ɗú-ó=nuu didi-a$_S$ wat-á=d^e

ones-ABL=REL.PL.PST3 weather-ACC rain-REAL=DP

Because it was raining,...

(135) *Naa nee amedea beɗee ŋuesia,...*

náa nɛ́ɛ́ ám-ɛ́dɛ-a$_A$ bɛ́ɗ-ɛ́=ɛ ŋʊ-ɛ́sí-a

CONJ CONJ person-POSS.SG-ACC want-REAL=DP grind-INF-ACC

Whenever the owner wants to grind (some tobacco),...

The third function of the accusative is to mark the direct object of any non-sequential subordinate clause, regardless of the person of the subject. In (136), the object (O) *kɔ́nɛ́-ɛ́ní-* 'some-X' is in the accusative case, even though the subject is second person singular. Also, in (137), the object *ɲci-* 'I' is in the accusative, even though the subject is second person plural:

(136) *Nee rebidee koneenia amae,...*

nɛ́ɛ́ réb-id-e=e kɔ́nɛ́-ɛ́ní-a$_O$ ámá-^{e}

CONJ deny-2SG-REAL=DP one-PSSM-ACC person-GEN

When you deny someone (tobacco, that is),...

(137) *Isio tubiitee ncia ɉiik?*

isi-o túb-i-it-é=e ɲci-a$_O$ ɉíík

what-COP follow-PLUR-2PL-REAL=DP I-ACC always

Why do you follow me always?

6.3.7 Dative

The dative case suffix has the form {-kɛ}. Potential areal parallels for it include the Cushitic language Saho's goal/source marker -*k* (Banti & Vergari 2005:14) and the Dhaasanac 'core adposition' -*(k)i* that encodes dative, benefactive, and instrumental roles (Tosco 2001:232).

The Ik dative suffix has L tone but can take a H tone spread from the preceding stem (T7). It is a recessive suffix with the [+ATR] allophone /-ke/ after [+ATR] stems. In terms of suffixation strategy, the dative suffix preserves the stem-final vowel, ostensibly to avoid a disallowed CC cluster. Before a pause, the dative suffix is reduced to /-kᵉ/ or /-kˀ/, and its clause-medial allomorph, losing the /k/, has the form /-ɛ/ or /-e/. If the stem-final vowel is /a/, /ɪ/ or /ɔ/, it may be totally assimilated by the dative suffix. And if the final vowel of a stem is a high back vowel, it may desyllabify and cause the dative suffix to lengthen in compensation:

(138) *Dative case paradigm*

Basic form-DAT	Non-final	Final	Gloss
ŋókí-kɛ	ŋókí-e	ŋókí-kᵉ	'dog'
sɪsí-kɛ	sɪsí-ɛ́/sɪsɛ́-ɛ́	sɪsí-kᵉ	'honey-beer'
ɓóré-kɛ	ɓóré-e	ɓóré-kᵉ	'corral'
ɲɛkɛ-kɛ	ɲɛkɛ-ɛ	ɲɛkɛ-kᵉ	'hunger'
ŋʊrá-kɛ	ŋʊré-ɛ́	ŋʊrá-kᵉ	'cane rat'
zɪnɔ́-kɛ	zɪnɔ́-ɛ́/zɪnɛ́-ɛ́	zɪnɔ́-kᵉ	'zebra'
ɗéró-kɛ	ɗéró-e/ɗérw-ée	ɗéró-kᵉ	'rat'
kafʊ-kɛ	kafʊ-ɛ/kafw-ɛɛ	kafʊ-kᵉ	'thorn'
dakú-kɛ	dakú-é/dakw-éé	dakú-kᵉ	'tree'

In terms of grammatical function, the dative case is used to mark peripheral arguments that most prototypically encode a Goal for motion or action verbs and Location for static verbs. These have literal and more metaphorical applications as evidenced by the following seven roles:

(139)   *Dative case semantic roles*

1	Recipient/Benefactor
2	Experiencer
3	Destination/Goal
4	Location
5	Possessor
6	Purpose
7	Second object of the causative

First, the dative marks peripheral arguments that encode an entity receiving something from an Agent. This includes Recipients and Benefactors, e.g.:

(140)   *Kisanese koto ɲekinerika roɓak.*
        kisán-ese = kótó   ɲekínér-ik-a   roɓa-kᵉ
        distribute-SPS = ADV meat.cuts-PL-NOM   people-DAT
        Then the meat cuts are distributed to people.

(141)   *Duƙwee kidiasaik.*
        d-uƙw-ee   ki = diásaí-kᵉ
        take-AND-IMP.SG DEF = others-DAT
        Take (it) to the others!

Second, the dative marks peripheral arguments that encode an Experiencer receiving something from a Stimulus, for example with verbs of speech:

(142)   *Kutini naɓo ntsie,…*
        kʊt-ɪnɪ   naɓó   ntsí-é
        say-SEQ again   he-DAT
        And they said again to him,...

Third, the dative case in Ik is to mark peripheral arguments that encode the Destination or Goal of an action or motion, as for example in:

(143) *Ɓuƙotio honesiika rijaaƙok.*
ɓú-ƙót-i-o   hɔn-ésí-ik-a   ríjá-aƙɔ-kᵉ
enter-AND-3SG-SEQ   drive-INF-AGT.PL-NOM   bush-inside-DAT
And the animal-drivers enter the bush.

(144) *Keese koto awak.*
ƙe-esé=koto   awá-kᵉ
go-SPS=ADV   home-DAT
Then (people) went home.

(145) *Kaa naa roɓa ndaik?*
ƙa-a=náá   roɓ-a   ndaí-kᵉ
go-REAL PST1   people-NOM   where-DAT
Where did the people go?

Fourth, the dative marks a peripheral argument encoding the Location of a state or action not including a sense of motion, as in the following:

(146) *Nda iyiima noo Baratiawak.*
ń'da   i-í-ím-a=noo   baratí-áwa-kᵉ
and   be-PLUR-1PL.EXC-REAL=PST3   fig.tree-place-DAT
And we were (staying) at Fig Tree Place.

(147) *Ibookotuo ɲoropua asakagwariik.*
íbo-oƙot-u-o   ɲorópú-a   asaka-gwaríi-kᵉ
keep.overnight-COMP-3SG-SEQ   organs-ACC   door-top-DAT
And he kept the organs over the door till morning.

(148) *Hakaikiaa lorokona moɗeripak.*
hakaik-í-a-a   lorokon-a   mɔ́ɗé-ripa-kᵉ
forget-1SG-REAL-PRF   adze-NOM   ground.bee-hole-DAT
I've forgotten the adze in the ground-bee hole.

Fifth, the dative is used to mark a peripheral argument that encodes the Possessor of someone or something. In this function, the locative copula *i-* 'be (somewhere)' must be present, making the Possessor role a natural extension of the Location role illustrated above.

(149) *Iya kaudza bie ts'oo.*
      i-a   kaúdz-a   bi-e   ts'ɔɔ
      be-REAL money-NOM you.SG-DAT now
      Do you have money now (lit. 'Is there money to you now')?

(150) *Iya ŋokitina leɓetse ncik.*
      i-a   ŋók-ítín-á   leɓetse ɲci-k^e
      be-REAL dog-PL-NOM two   I-DAT
      I have two dogs (lit. 'There are two dogs to me').

Despite examples like the ones above, the more common way Ik expresses possession with the locative copula *i-* is with the connector *ń⸵da* 'and/with', as in *iía ń⸵da ŋókítíná leɓets* 'I have (lit. 'am with') two dogs'.

Sixth, the dative case is used to mark peripheral arguments that encode Purpose. In this function, the argument denoting purpose is usually a nominalized verb (infinitive) declined in the dative case.

(151) *Waana nkanesie toboŋoe.*
      ó-án-a   ŋkan-i-esí-e   tɔbɔŋɔ́-ᵉ
      call-IPS-REAL   get-PLUR-INF-DAT   maize.mush-GEN
      They are invited to get (or 'for getting') maize mush.

(152) *Ŋweese paka itemuƙotuo ɉuresuƙotik.*
      ŋʊ-ɛ-ɛ́sɛ́   páka   itém-úƙot-u-o   ɉór-ɛ́s-ʊƙɔtí-k^ɛ
      grind-INCH-SPS until suitable-COMP-3SG-SEQ snuff-INF-COMP-DAT
      And it's ground up until it becomes suitable for snuffing.

The dative case is also used in a construction called 'verb intensification' or 'verb strengthening'. Since verb strengthening is also found in Teso-Turkana (e.g. Dimmendaal 1983:423), the Ik construction is likely a calque of it. Verb strengthening is when an imperative verb is followed by the same verb in the infinitive and in the dative case. It can be translated as 'X for X-ing', that is, for the reason of X and no other. Examples include the following:

(153) *Kae ƙoonik!*
     ƙa-e   ƙó-oni-kᵉ
     go-IMP.SG   go-INF-DAT
     Get the hell out of here (lit. 'Go for going')!

(154) *Ipasoetia ipasoonik.*
     ipaso-et-í-a-a   ipásó-oni-kᵉ
     be.idle-VEN-1SG-REAL-PRF   be.idle-INF-DAT
     I just wandered over here for no reason at all.

The final function of the dative case to be described here has to do with causative verbs (see also §7.9.1). In Ik, if an intransitive verb is made a causative with the causative suffix {-ɪt}, the subject (S) of the original verb is treated as the object (O) of the now causative verb.

(155) *Tsidzetaa kotor.*
     tsídz-et-á-á   kɔtɔ́r-∅ₛ
     carry-VEN-REAL-PRF   oribi-NOM
     An oribi (antelope) has flushed out!

(156) *Tsidzitetaa kotorak.*
     tsídz-it-et-á-á   kɔtɔ́rá-kᵃₒ
     carry-CAUS-VEN-REAL-PRF   oribi-ACC
     He has flushed out an oribi.

Going a step further, when a transitive verb is made into a causative, the subject (A) of the original verb is treated as an object (O) of the now-causative verb. But, the object (O) of the original verb is now treated as a second object or extension (E) in the now causative construction. The data below shows what happens when the transitive verb *wet-* 'drink', which requires an agent (A) and a patient (O), is causativized:

(157)   *Wetuo ima cemerik.*

wet-u-o   im-a$_A$ cɛmɛrɪ-k^a_O

drink-3SG-SEQ   child-NOM   herb-ACC

And the child drank the medicine.

(158)   *Wetituƙotuo imaa cemerik.*

wet-it-úƙót-u-o   imá-á$_O$ cɛmɛrɪ-k^ɛ_E

drink-CAUS-COMP-3SG-SEQ   child-ACC   herb-DAT

And she made the child take the medicine.

In (157)-(158), the subject (A) of the first clause (*im* 'child') becomes the patient (O) in the second, now causative clause. And the patient (O) of the first clause (*cɛmɛr* 'herb') becomes a second or extended object (E) in the second clause. So in a sense, through a metaphorical extension of the Location role, the extended object becomes the 'site' of the causation.

As a side topic, it is worth mentioning that the Ik verb *iryám-ét-oni-* 'to get' (cf. Teso-Turkana *a-ryam-un*) always takes an argument in the dative case:

(159)   *Iryameida bee ŋitsanie?*

iryam-é-íd-a = bee   ŋítsaní-ɛ

get-VEN-2SG-REAL = PST2   troubles-DAT

Did you get trouble yesterday?

At first glance, it would appear that this is an instance where a core argument is marked with the dative, a non-core-marking case. However, it

is more likely that despite the English translation of this verb as 'get', it is really an intransitive verb, making the object in fact a peripheral argument. A clue for this comes from Teso-Turkana, where *a-ryam-un* 'to get' is related to *aki-ryam-un* 'to meet with'. As such, this Ik verb may carry more the idea of 'meeting with sth.' (e.g. 'acquiring') as opposed to merely 'getting' it.

Finally, on the basis of example (160) below, König has claimed that the verb form *bɪra-e* shows a 'petrified' form of the dative case on the verb *bɪrá-* 'not there'. She analyzes this verb form as *bɪra*-DAT and suggests that it has been lexicalized into a 'preposition' meaning 'without' (2002:255):

(160) …ɠo-í-a   kakum-e   ɛdá   bíra-e   íɲar-esí-kᵃ
        go-1SG-a   Kakuma-DAT   alone   be.NEG-DAT   help-INF-ACC
        I went alone to Kakuma without any help.

But this analysis is flawed due to incorrect morphological parsing. The verb form in question is not *bɪra-e* analyzed as *bɪra*-DAT but rather *bɪrá-í-ɛ* analyzed as *bɪrá*-3SG-SIML. This form is not a noun or verb fossilized into a preposition but rather an instance of the impersonal, 3SG adverbial simultaneous verbs used in clause chains (§11.2.2). It is true that this verb form is often best translated as 'without' into English, but it does not follow that it has become a 'preposition'. The example sentence in (160), taken from König (2002:255) is reanalyzed and glossed here as follows:

(161) *Koyaa Kakʊmee eɗa, birayee iŋaaresik.*
        ƙó-ia-a   kákumé-é   ɛdá   bɪrá-í-ɛ   ŋaar-ésí-kᵃ
        go-1SG-SEQ   Kakuma-DAT   alone   lack-3SG-SIML help-INF-ACC
        I went to Kakuma alone without (lit. 'it lacking') any help.

6.3.8 Copulative

The Ik copulative case suffix has the form {-kɔ}. In terms of parallels, the wider Cushitic language family abounds with possibilities. Sidaamo has *-ho/hu* as a copulative suffix (Lamberti 1984:5), and Arbore has an interrogative copula with the form *-ko* (Hayward 1984:122). An interrogative copula with the form *-ko* is also found in the Southern Cushitic languages Alagwa and Burunge (Mous 2012:398). Suggesting a link with the Ik copulative's focalizing function, Eastern Cushitic's Dhaasanac has an enclitic =*u* called a 'nominal focus marker' (Tosco 2001:60, 268-269).

The copulative case suffix is L-toned but can take a H tone from a preceding stem (T7). It is a recessive suffix that harmonizes to /-ko/ after a [+ATR] stem. The copulative does not delete stem-final vowels but rather affixes directly to them. Before a pause, the it is devoiced to /-kᵓ/, /-kº/ or /-kˀ/. When the it attaches to a stem-final /i/, the /i/ is backed to /u/ in partial assimilation to the vowel in the case suffix. And if the stem-final vowel is /ɪ/ or /a/, it may be partially or totally assimilated by the case suffix. Lastly, if a stem ends in a high back vowel (/ʊ/ or /u/), that vowel may desyllabify, causing the non-final copulative suffix to lengthen in compensation.

(162)   *Copulative case paradigm*

Basic form-COP	Non-final	Final	Gloss
ŋókí-kɔ	ŋókú-o	ŋókú-kº	'dog'
sɪsí-kɔ	sɪsɔ́-ɔ́	sɪsú-kᵓ	'honey-beer'
ɓóré-kɔ	ɓóré-o	ɓóré-kº	'corral'
ɲɛƙɛ-kɔ	ɲɛƙɔ-ɔ	ɲɛƙɛ-kᵓ	'hunger'
ŋʊrá-kɔ	ŋʊrɔ́-ɔ́	ŋʊrá-kᵓ	'cane rat'
zɪnɔ́-kɔ	zɪnɔ́-ɔ́	zɪnɔ́-kᵓ	'zebra'
ɗéró-kɔ	ɗéró-o	ɗéró-kº	'rat'
kafʊ-kɔ	kafʊ-ɔ	kafʊ-kᵓ	'thorn'
dakú-kɔ	dakú-ó	dakú-kº	'tree'

The copulative case has the following three grammatical functions:

(163) *Copulative case grammatical functions*

1	Mark focus in a cleft construction
2	Mark the complement of a verbless copula
3	Mark the complement of a negative identity copula

The first function of the copulative is to mark an argument that has been brought into discursive focus by being fronted before the main verb. The result is a cleft-construction that means something like 'It is X (that)...'. The fronted constituent can be a subject, object, or any peripheral argument:

(164) Subject: *Ngoo naa ikametim.*

ŋgó-ó=naa   ɪkam-ɛt-ím-ᵠ

we.EXC-COP=PST1   catch-VEN-1PL.EXC-REAL

It is we (who) captured (him).

(165) Object: *Mesoo beɗim.*

mɛsɔ-ɔ   béɗ-ím-ᵠ

beer-COP   want-1PL.EXC-REAL

Is is beer (that) we want.

(166) Peripheral: *Ntsuo tomoranee nda kidiasai.*

ntsú-ó   tɔmɔ́r-án-é=e   ń̩da   kiɗíásaⁱ

it-COP   share-IPS-REAL=DP   with   others[OBL]

It is (why) it is shared with others.

The second function of the copulative is to mark nouns functioning as the complements of verbless copula clauses (VCC). VCCs provide an example of when a noun non-canonically functions as a clause's predicate. The copulative case makes this possible by verbalizing the noun. No corresponding subject is needed, though it may be inferred contextually:

(167) *Amak.*　　　　*Icek.*　　　　*Roɓak.*

　　　ámá-kᵒ　　　　icé-kᵒ　　　　roɓa-kᵒ

　　　person-COP　　　Ik-COP　　　　people-COP

　　　It's a person.　　They're Ik.　　It's people.

The third function of the copulative is to mark the complement of a copula clause (CC) with the negative copula *bení-*. If the copula subject (CS) is mentioned, as in (169) and (170), then it appears in the nominative case:

(168) *Benia ja ngok.*

　　　beni-a = ɟá　　　　　ŋgó-kᵒ$_{CC}$

　　　not.be-REAL = ADV　　we.EXC-COP

　　　It's really not us.

(169) *Benia noo cwoo kiɗaa.*

　　　beni-a = noo　　　　cuó-ó$_{CC}$　　　ki = ɗá-á$_{CS}$

　　　not.be-REAL = PST3　　water-COP　　MED = ones-NOM

　　　That was not water.

(170) *Benia njinio ɗa goƙisina nee ne?*

　　　beni-a　　　ɲjíní-o$_{CC}$　　ɗ-a$_{CS}$　　　goƙ-ísin-a　　　né-é = ne

　　　not.be-REAL　we.INC-COP　one-NOM　　sit-1PL.INC-REAL here-DAT = DEM

　　　Are we not the ones seated here?

Despite what the preceding sentences show, complements of the negative copula of identity *bení-* can also appear in the nominative case. Or perhaps in the following two examples, the nouns in the nominative case are in fact the copula subjects whose complements are understood from the context:

(171) *Benia ɟa nk.*

　　　beni-a = ɟá　　　　　ŋ́k-ᵃ$_{CS/CC?}$

　　　not.be-REAL = ADV　　I-NOM

　　　It's just not me.

(172) beni-á   ɗ-a _{CS/CC?}   ɲíɲí-e
     not.be-REAL one.SG-NOM we.INC-GEN
     Is it not (the one of) ours?

In closing, the question must be asked: Is the Ik 'copulative' really a case? As mentioned above, Cushitic parallels for the Ik copulative case suffix {-kɔ} are analyzed variously as suffixes, clitics and 'markers' more generally. In strictly morphological terms, the morpheme {-kɔ} certainly patterns like all the other Ik case suffixes: 1) It has an identical segmental shape as that of the dative and accusative cases, 2) it undergoes identical morpho-phonological alternations as the others suffixes, and 3) it fills the same nominal suffixal position as the other case suffixes. Then in syntactic terms, it patterns with other cases in that it is required to mark a unique argument (complement) in a specific clause type: a negative copula of identity clause. Thus it is analyzed in this grammar as a 'case' proper, synchronically.

Nevertheless, the copulative case has some peculiar properties that set it apart from all the other cases. First, apart from its function in marking a copular complement, the copulative does not encode grammatical relations of a noun with a predicate or a noun with another noun in a noun phrase. When it marks a noun, either in a cleft-construction or in a verbless copula clause, the noun fills the predicate slot. In that position, the noun with the copulative suffix can be followed by adverbial and tense-marking enclitics that otherwise come directly after true verbs. So in this sense, the copulative has a function more characteristic of a verbal morpheme.

As discussed below in §6.4.1, König has traced a chain of grammaticalization from an old focus marker (cf. the Cushitic parallels) to both the copulative suffix in the nominal system and the sequential aspect marker in the verbal system (2002:349-361). And so it would seem that the Ik copulative case shows the traits of a transitional form between a nominal and verbal morpheme. This might help explain its cross-categorial behavior.

6.4 'Case' and grammaticalization

Formal parallels or homophones of the nominal case suffixes are found in other subsystems of Ik grammar. These are most richly attested in the verbal system (§6.4.1), though they are also found on demonstratives, relative pronouns, and tense particles (§6.4.2). This homophony has led to claims that Ik case is marked on 'conjunctions, postpositions, prepositions, adverbs, and even verbs' (König 2008:81). But this is misleading because most of these word classes are really nouns or verbs in Ik. The notion that nominal case suffixes grammaticalized into verbal inflectional affixes is one of the key claims of König 2002. Using her methodology, Schrock 2013 traces out several other potential grammaticalization pathways going from nominal case suffix to verbal affix. The picture emerging from this work is that due to its near ubiquity, 'case' is a unifying structural element in the language.

Unless the traditional definition of case is revised to include functors outside the nominal system, it is useful to speak of 'case' and 'Case' in Ik. The former is a way the language encodes grammatical relations, and the latter is a meta-categorial or mono-systemic archi-morphology whose precise origin and path of grammaticalization is not always known. In some instances, there is a demonstrable semantic link between a form in one system and its parallel in another, but in other instances, there is not.

Up to now it seems to have been assumed in the literature that nominal case suffixes are prior, being the source of parallels found elsewhere. A less explored but equally possible scenario is that all the various formal parallels in the different subsystems all come from a yet undiscovered source. Until much more descriptive and historical-comparative work is done in the Horn of Africa, the origin of these morphological types may remain out of sight.

6.4.1 'Case' on verbs

König 2002 argued that Ik has grammaticalized nominal case suffixes into TAM verbal suffixes. The most prominent examples of this are 1) the dative

suffix turned marker of the simultaneous aspect ('subjunctive' in König's terminology) and 2) the copulative suffix turned marker of the sequential aspect ('narrative' in König's terminology). Consider these examples:

(173) *Grammaticalization of dative into simultaneous*

Dative		>	Simultaneous	
ɓóré-kᵉ	corral-DAT	>	ats-i-kᵉ	come-3SG-SIML
sɪsí-kᵉ	mead-DAT	>	ƙɔ́ɗ-í-kᵉ	cry-3SG-SIML

(174) *Grammaticalization of copulative into sequential*

Dative		>	Simultaneous	
ɓóré-kᵒ	corral-COP	>	ats-u-kᵒ	come-3SG-SEQ
sɪsó-kˀ	mead-COP	>	ƙɔ́ɗ-ó-kˀ	cry-3SG-SEQ

The data in (173) show that the dative case suffix and the simultaneous aspect suffix are identical in form ({-kɛ} and its various allomorphs). And as shown in (174), the copulative case suffix and the sequential aspect suffix are also identical in form ({-kɔ} and its allomorphs). König establishes the putative grammaticalization link between these nominal and verbal suffixes based on the following five points (adapted from 2002:318-319, 414):

(175) *Evidence of case > verbal suffix grammaticalization*
1. Their forms are identical.
2. Their morphophonological behavior is identical.
3. Their position in the word (i.e. always at the end) is identical.
4. The simultaenous and sequential suffixes show similar syntactic behavior (e.g. they are both used in subordinate clauses).
5. They exhibit other similar characteristics, such as:
   a. Their non-final/final forms.
   b. Their form consisting of /k/ plus a silent vowel.
   c. Their deletion of /a/ in the preceding stem.
   d. Their exclusion from negated verb forms.

In König's view, both the copulative case suffix and the sequential ('narrative') aspect marker were later developments from a nominal focus marker that was also a development from a copular suffix on nouns (2002:349-361). Paradoxically, she concludes that a focus marker encoding discontinuity developed into a 'narrative' mood marker encoding discourse continuity (2002:360). From a synchronic point of view, the copulative case in the nominal system and the sequential aspect in the verbal system do seem to focus attention on a given noun or verb. For nouns, this attention has a focal or copular function. For verbs, this attention simply highlights the point-by-point sequence of a text. In both systems, the morpheme {-kɔ} focuses attention on the respective item, as in the following:

(176)   ámá-kº   person-COP   'It IS [a person].'
        ats-u-kº   come-3SG-SEQ   'It IS [s/he/it came].'

As for the homophonous dative /simultaneous ('sujunctive') marker {-kɛ}, König states that "In Icetot, the starting point in the grammaticalization of the dative into the subjunctive was probably an application of the dative as a *purpose* marker: first of all, together with a noun; then with a verbal noun; and finally, with an inflected verb" (2002: 264, italics in original).

But another explanation for the dative > simultaneous grammaticalization—and the one adopted in this grammar—is that the dative case's semantic role of Location was simply extended over time from nouns to whole subordinate clauses. If true, this would reflect one of the cross-linguistic 'cognitive-communicative strategies' in grammaticalization to "treat subordinate clauses like nouns" (Heine & Kuteva (2007:100-101). There is precedent for this analysis in wider Nilotic and particularly in Turkana where the locative prefix *nɪ-/ni-* is used for manner adverbials whether based on nouns or verbs. As Dimmendaal states, "The semantic distinction between manner and location...is not always clear" (1983:363-364). Just as the Ik dative case on nouns expresses the locational senses of 'in', 'on', or 'at', so the

simultaneous aspect suffix seems to have over time come to encode states or actions in or during which other states or actions are occuring, for example:

(177)   *Epuƙwee kiɟak.*
    ep-uƙw-ee   kíɟá-kᵉ
    sleep-AND-IMP.SG   ground-DAT
    Lie down on the ground.

(178)   *Epuƙwee maraŋidik.*
    ep-uƙw-ee   maráŋ-ídi-kᵉ
    sleep-AND-IMP.SG   good-2SG-SIML
    Sleep well (Lit. 'Sleep you being good' or 'Sleep *in* you being good').

(177) is a simple command to lie down on the ground, while (178) is a command to lie down '*while* you are good', that is, '*in* the state of your being good'. These examples show how the semantics of *physical* co-occurrence on nouns, encoded by the dative, is extended to *circumstantial* co-occurrence on verbs. Even if this analysis is correct, the two homophones in the two grammatical systems must be treated as synchronically distinct. The location analogy may, however, be tested as a grammaticalization hypothesis.

Taking similar points of comparison, other links can be posited between nominal case suffixes and verbal inflectional affixes such as the following:

(179)   *Other hypothetical case > verbal affix grammaticalizations*

Case		Verbal suffix
Oblique	>	Irrealis
Nominative	>	Realis
Accusative	>	Present perfect
Genitive	>	Singular imperative
Ablative	>	Plural imperative

Schrock 2013 goes through each potential pair in (179) and determines that some, namely the first three, are more likely than others. That view is amended here in that only the first two are considered plausible. Those two—oblique > irrealis and nominative > realis—are the only two that seriously affect the analysis of the whole grammar. The other four encounter serious problem but are still interesting for speculative historical analysis.

The hypothesis that Ik has grammaticalized the nominative suffix {-a} into a verbal realis modality marker is analytically important. It was Heine who first noted that the nominative case and his 'aorist' tense shared something in common—the vowel /a/, which he calls the 'thematic final a' (1983:§2.5.3.1.1). But so far no one has explored the possibility that the 'aorist' marker /-a/ is a grammaticalization of the nominative case marker.

Besides their phonological identity, the nominative case {-a} and the realis {-a} share a significant morphological characteristic: They both subtract the final vowel of the stem or affix to which they attach. To illustrate this, the first column in (180) shows the underlying forms, first of noun roots with the nominative suffix, and then of verb roots and pronominal subject markers with the realis suffix. The second column then shows how {-a} in both systems subtracts the preceding nominal or verbal stem-final vowel:

(180)   *Grammaticalization of nominative > realis*

Nouns			
ɓóré-a	→	ɓór-á	corral-NOM
ŋókí-a	→	ŋók-á	dog-NOM
sɪsí-a	→	sɪs-a	mead-NOM
Verbs			
ats-íí-a	→	ats-í-a	come-1SG-REAL
ats-ídi-a	→	ats-íd-a	come-2SG-REAL
ats-i-a	→	ats-a	come-3SG-REAL

Interestingly, similar suggestive commonalities are found to exist between the oblique case morpheme and the irrealis modality morpheme, both of which are zero (∅). Being zero-marked, the oblique case allows a noun stem's underlying form to surface (often with minor tonal changes). Likewise, the irrealis modality allows the underlying form of the preceding verbal morpheme to surface. In (181), the first column presents the underlying forms of several noun and verb stems with the oblique or Irrealis marker. The second column reveals their non-final surface forms:

(181)   *Grammaticalization of oblique > irrealis*

Nouns			
ɓóré-∅	→	ɓóré	corral[OBL]
ŋókí-∅	→	ŋókí	dog[OBL]
sɪsí-∅	→	sɪsɪ	mead[OBL]
Verbs			
ats-íí-∅	→	ats-íí	come-1SG[IRR]
ats-ídi-∅	→	ats-ídi	come-2SG[IRR]
ats-i-∅	→	ats-i	come-3SG[IRR]

Based on the data above in (180), a plausible claim can be made that the nominative case {-a} and the realis modality {-a} are related historically. Whether one came from the other or both came from somewhere else is not known. And based on the data in (181), the same claim can be made for the oblique case and the irrealis modality which are both marked by {-∅}.

But beyond segmental identity and morphophonological similarity, can these morphemes in disparate grammatical systems be linked semantically? Tentative connections can be drawn, but they are speculative and based on Ik's mismatch of formal and semantic markedness. For example, just as the nominal system marks what is common (e.g. subjects) and does not mark what is uncommon (e.g. oblique arguments), the verbal system marks what is actual (realis predications) and not what is unactualized (irrealis).

Such theorizing about grammaticalization finds practical application in the analysis of the subject-agreement pronominal suffixes. The analysis of these suffixes has been both the stimulus and result of case grammaticalization hypothesizing. A few comments are made below to illustrate the complexity of the issue and its relevance to Ik grammaticography:

Ik cross-references subjects by means of bound personal pronominal suffixes on verbs. These are described elsewhere §5.1.4 and §7.4, but a brief summary is repeated here: The subject-agreement pronominals mark grammatical person (1-2-3), number (SG and PL) and clusivity (EXC and INC). The underlying forms of these suffixes are posited as [-ATR] (except 3PL) with [+ATR] allomorphs after dominant [+ATR] stems or affixes. The suffixes' tones may be altered by the verbal stem and certain verbal suffixes.

(182)   *Ik bound pronominal suffixes*

1SG	-íí
2SG	-ídɪ
3SG	-ɪ
1PL.EXC	-ímí
1PL.INC	-ísínɪ
2PL	-ítí
3PL	-áti

The forms presented in (182) for the pronominal suffixes are not automatically discoverable in Ik data. Instead, they came to be analyzed this way through a rather convoluted process. Analysis of these suffixes has long been confounded by at least three factors: 1) the non-final versus final form distinction, 2) the realis suffix which substracts stem-final vowels (§7.6.2), and 3) the behavior of the sequential and simultaneous aspectual suffixes. The interaction of these three factors had led to two conflicting analyses:

(183) *Ik subject-agreement markers in the literature*

	With /-a/ as 'complemental suffix' (Crazzolara 1967:23, Tucker 1972:184)	With /-a/ as part of the pronominal suffixes (Heine & König 1996, König 2008:83)
1SG	-í-á	-íá
2SG	-íd-a	-ída
3SG	-∅-a	-a
1PL.EXC	-ím-á	-ímá
1PL.INC	-ísín-a	-ísína
2PL	-ít-á	-ítá
3PL	-át-a	-áta

The data in (183) are presented in their non-final forms since the final forms further obfuscate things by reducing the suffixes' final vowel. As argued in §7.6.2, the position taken in this grammar is that the realis suffix {-a} subtracts the last vowel of whatever morpheme it attaches to. Since this vowel subtraction happens to the subject-agreement suffixes as well, then this means that final vowels have been subtracted from the forms in (184).

That is one point. Parallel to this issue is what happens when verbal extensions like the simultaneous {-kɛ} are suffixed to the subject-agreement markers. When this occcurs, an /ɪ,i/ rather than an /a/ surfaces between the subject-agreement markers and the simultaneous suffix. If the vowel /a/ is part of the subject-agreement markers, it would be hard to explain what happens to it in this situation. Heine & König 1996 and König 2002 argue that the intervening /ɪ,i/ is the optative suffix, but no convincing semantic reason for this is given. Instead, the view taken here is that the intervening /ɪ,i/ is in fact part of the subject-agreement morpheme, while the /a/ so often seen is the realis marker than subtracts the /ɪ,i/ in many contexts.

Below in (184) are given all the subject-agreement suffixes in their non-final and final forms, in both the non-past tense, realis modality on the one hand,

and the simultaneous aspect on the other. For the sake of illustration, morpheme-breaks are purposely not inserted between the subject-agreement markers and the realis suffix {-a/-ᵃ} or the simultaneous suffix {-ɛ/-kᵉ}:

(184)   *Ik subject-agreement markers in different verb forms*

	Non-past, realis		Simultaneous	
	Non-final	Final	Non-final	Final
1SG	-íá	-íᵃ	-ííkɛ	-ííkᵉ
2SG	-ída	-ídᵃ	-ídɪɛ	-ídɪkᵉ
3SG	-a	-ᵃ	-ɪɛ	-ɪkᵉ
1PL.EXC	-ímá	-ím	-ímíɛ	-ímíkᵉ
1PL.INC	-ísína	-ísín	-ísínɪɛ	-ísínɪkᵉ
2PL	-ítá	-ítᵃ	-ítíɛ	-ítíkᵉ
3PL	-áta	-átᵃ	-átie	-átikᵉ

If the simultaneous ('subjunctive') aspectual suffix is *-ɛ/kɛ/kᵉ* as claimed in König 2002, where do the subject-agreement markers end in the last two columns of (184)? In answer to this question, it is concluded here that a) since the dative case preserves the stem-final vowel in the nominal system, and b) if the simultaneous suffix is a grammaticalization of the dative case, then c) it too, by analogy, might preserve the final vowel of the morpheme to which it attaches. In this case, that morpheme is the subject-agreement suffixes. So, when the simultaneous suffix in the final column of (184) is removed, what is left is the subject-agreement suffixes without an intervening optative marker. The realis forms can then be accounted for by the realis suffix {-a}, itself a (potential) grammaticalization of the nominative {-a} that subtracts the subject-agreement suffixes' final vowel.

6.4.2 'Case' in other word classes

Formal parallels of Ik nominal case markers are also found on demonstratives, relative pronouns, and tense particles. The situation is less surprising if one considers that both tense particles and relative pronouns

developed out of demonstratives. Ik tensed demonstratives and tensed relative pronouns are identical in form and are marked for Ik's three-term past tense system: recent past, removed past, and remote past:

(185)   *Ik tensed demonstratives/relative pronouns*

	Singular		Plural	
Non-past	=na	'this/which'	=ni	'these/which'
Recent past	=náka	'that/which'	=níki	'those/which'
Removed past	=sɪna	'that/which'	=sini	'those/which'
Remote past	=nɔkɔ	'that/which'	=nuku	'those/which'

As can be seen in (186), the non-past form of the demonstrative/relative pronouns provides the base on which the other tense forms are built:

(186)   *Analysis of tensed demonstratives/relative pronouns*

Non-past	=**na**	=**ni**
Recent past	=**ná**-ka	=**ní**-ki
Removed past	=sɪ-**na**	=si-**ni**
Remote past	=**nɔ**-kɔ	=**nu**-ku

In (186), the base (non-past) forms of the demonstratives/relative pronouns are in bold print—**na** for singular and **ni** for plural. Vowel assimilation changes **na** to **nɔ** in the remote past singular and **ni** to **nu** in the plural. The recent past and remote past forms form have suffixes resembling a case marker. (Only the removed past shows a prefix instead—*sɪ-/si-*, which is probably related to the South Omotic language Dime's proximal demonstrative element *si-* (Mulugeta 2008:73).) The recent past form of the Ik singular demonstrative has *-ka* as a suffix. This is homophonous with the accusative case suffix {-ka} and nearly so with the present perfect marker {-ˊka}. Likewise, the remote past singular demonstrative has *-kɔ* as a suffix. This resembles the copulative suffix and sequential aspect marker {-kɔ}.

Two of these Ik demonstratives have grammaticalized not only into relative pronouns but also into tense clitics. During that process, the deictic function a demonstrative has over a single noun or a noun phrase was extended to whole clauses. Since clauses are singular, the singular forms of the demonstratives were borrowed to function as tense markers. The tense markers for recent past and remote past are identical to demonstratives, while the removed past marker shows a different form of unknown origin:

(187) *Ik tense clitics*

	Non-final form	Final form
Recent past	=náa	=nákᵃ
Removed past	=bɛɛ	=batsᵋ
Remote past	=nɔɔ	=nɔkᵓ

The discussion above examining the recent past and remote past singular demonstratives applies equally to the recent and remote past tense enclitics. For the removed past tense enclitic, the segment /ts/ is missing in the non-final form, leading to vowel assimilation. The origin of the suffix /-tsɛ/ is unknown, though it recalls the Proto-Gumuz word *tsa* 'body' that has been grammaticalized in Gumuz for several different uses (Ahland 2012:251).

The parsed versions of the tense clitics in (187) are as follows:

(188) *Ik tensed clitics parsed*

	Non-final form	Final form
Recent past	=ná-a	=ná-kᵃ
Removed past	=bɛ-ɛ	=ba-tsᵋ
Remote past	=nɔ-ɔ	=nɔ-kᵓ

(188) shows that just as with the demonstratives and relative pronouns, the frozen suffixes on Ik tense particles lose their consonantal segment in non-final forms. The suffix on the recent past closely resembles the accusative

case and present perfect aspect suffixes, and the suffix on the remote past form closely resembles the copulative case and sequential mood suffixes. However, just as the present perfect suffix {-́ka} has a preceding floating tone, the frozen suffix on the recent past demonstratives and tense clitic shows evidence of a floating tone. This suggests that the sequences /-́ka/ for singular and /-́ki/ for plural are related historically to the present perfect suffix and not the accusative suffix (which lacks the floating H).

Unlike the grammaticalization links for case > verbal affix discussed above, a semantic link can easily be envisioned between the present perfect aspect-tense marker {-́ka} as a verbal suffix and the recent past marker {-́ka} as a suffix on demonstratives, relative pronouns, and tense enclitics. In the same way, a semantic link can also be established between the sequential aspect marker {-kɔ} as verbal sufix and the remote past marker {-kɔ} as a suffix on demonstratives, relative pronouns, and tense enclitics. This is true for the singular demonstrative forms; it is less clear how the plural ones developed:

(189)   *Verbal < > demonstratival grammaticalization*

	Singular	Plural?	
Present Perfect	ats-á-kᵃ		come-REAL-PRF
Recent Past	ná-kᵃ	ní-kⁱ	PST-REC
Sequential	ƙɔ́ɗ-ʊ́-kᵓ		cry-3SG-SEQ
Remote Past	nɔ-kᵓ	nu-kᵘ	PST-REM

So based on phonological, morphological, and semantic properties, the diachronic relationship between the forms in (189) is established. The question one step removed—whether the present perfect {-́ka} related to the accusative case {-ka} and whether the sequential {-kɔ} is related to the copulative {-kɔ}—is touched on above in §6.4.1 and in Schrock 2013. The latter source fails to take into account the floating H tone in the present perfect suffix {-́ka} which makes a link with the accusative less plausible.

7 Verbs

The Ik language's second large, open word class besides nouns is verbs. This chapter begins with an overview of verb roots (§7.1) and then moves on to describe various verbal suffixes and verb-building mechanism (§7.2-§7.11).

In Ik, a verb is a word whose primary grammatical function is to be the head of the predicate. As head of the predicate, a verb can take a variety of inflectional affixes, including those for subject agreement, mood, modality, valency, and aspect. A secondary grammatical function of the Ik verb is to be the head of a noun phrase. For a verb to adopt this function, it must first be nominalized with one of the language's several nominalizing suffixes.

A prototypical member of the Ik verb class predicates the action, state, location, or characteristic of its subject. Some concepts covered by an adjective class in other languages—like color, size, and shape—are covered by special adjectival verbs in Ik. And other concepts conveyed by nouns in many languages are also encoded in Ik with nominalized verbs.

At an abstract lexical level, some words are neither verb nor noun until they receive verbal or nominal affixes. These include words like *deku-* 'quarrel', *ƙaƙa-* 'hunt', *tɔkɔba-* 'cultivate', and many others (see also §4 on nouns). When such lexemes are used as verbs, they receive verbal affixes like subject agreement markers. When they are used as nouns, they receive nominal affixes like case markers. So while the word classes of verb and noun can normally be clearly distinguished in Ik on the basis of syntax and semantics, their boundaries do overlap with a fair number of lexemes.

A verbal word in Ik consists minimally of a verbal root plus one inflectional affix. With the exception of reduplicated roots and fossilized prefixes, all verbal inflectional and derivational affixes in Ik are suffixes.

Morphologically, Ik is moderately agglutinative, and this is most fully evident in verbal inflection, for example in a verb like *buɗ-úd-it-és-úkot* 'to soften', which in addition to the root *buɗ-* contains four verbal suffixes. The most suffixes ever observed in a single verb stem is five, as in *gaan-i-áá-kot-át-a-kᵃ* 'They have become increasingly bad'.

The usual citation form of an Ik verb—heard in response to the question "How do you say_____in Ik?"— is the infinitive which is recognizable from the intransitive nominalizer {-ɔnɪ-} or the transitive nominalizer {-ésí-}:

(1)   *Verbal citation (isolation) forms*

Intransitive		Transitive	
ɛf-ɔn	'to be sweet'	ɛf-ɪt-ɛs´	'to sweeten'
zíz-on	'to be fat	zíz-it-és	'to fatten'

Just as noun roots cannot occur without a case suffix, bare verb roots also cannot occur. Even those that may sound like a bare root to a non-Ik speaker—the 3SG realis and singular imperative—have a minimum of one suffix that may be devoiced or deleted at the surface level. In the realis modality, 3SG is zero-marked (-∅) because the realis suffix {-a} subtracts the 3SG subject-agreement suffix {-ɪ}. Then before a pause, the realis suffix may be completely inaudible, though still present phonologically. Similarly, the singular imperative {-ɛ´} may be rendered inaudible before a pause:

(2)   *Isolated verbs falsely perceivable as bare roots*

3sg realis			
bíz-a#	→	[bîẓ:]	'He presses (it).'
pul-a#	→	[pùl̥]	'He pierces (it).'
Imperative singular			
bíz-e´	→	[bîẓ:]	'Press (it)!'
pul-e´	→	[pūl̥]	'Pierce (it)!'

7.1 Verbal roots

Ik verbal words consist of roots and suffixes. The present section examines the structure of Ik roots, while §7.2-§7.9 handle the topics of verbal suffixes. Whenever it is convenient to refer only to a root without suffixes, the root will be hyphenated, as in *ats-* 'come' or *zík-* 'tie'. Such forms are considered lexical and slightly abstracted from actual speech. This section begins with a few comments on various features of verbal roots in general.

As a structural possibility, in rare cases lexical roots may exhibit variable tone melodies with slightly different resulting semantic nuances. Note that this is not the same as minimal pairs with different meanings altogether, e.g. *dʊ́b-* 'catch' vs. *dʊb-* 'mix with water'. Consider the following examples:

(3)   *Tonal minimal lexical verb pairs*

búd-	'to hide something'
bud-	'to hide oneself'
hɔ́n-	'to drive animals'
hɔn-	'to drive a machine'
ŋʊ́-	'to be ground'
ŋʊ-	'to grind'

The last two verb roots in (3) are illustrated in the two sentences below:

(4)   *Beɗa ceka ŋweesik.*

bɛ́ɗ-á   cek-a   ŋʊ-ɛ́sí-kᵃ

want-REAL   woman-NOM   grind-INF-ACC

The woman wants to grind (grain).

(5)   *Beɗa ŋama ŋweesik.*

bɛ́ɗ-á   ŋám-á   ŋʊ́-ɛ́sɪ-kᵃ

want-REAL   sorghum-NOM   grind-INF-ACC

The sorghum needs grinding.

Because Ik is an argument-dropping language (even core arguments), one cannot guess the transitivity of a verb from syntax or semantics. But at least, Ik verb roots are lexically specified as intransitive, transitive, or ditransitive (extended transitive). As mentioned above, intransitive verbs are identified by the infinitive suffix {-ɔnɪ-}, while the suffix {-ɛ́sɪ́-} identifies transitives and ditransitives. And a significant number of verb roots are ambitransitive—able to be intransitive or transitive, for example:

(6)   *Some Ik ambitransitive verb roots*

ábʊ́ƙ-	ábʊbʊ́ƙ-ɔn	'to charge (of animals)'
	ábʊbʊ́ƙ-ɛ́s	'to scoop out'
dzɛr-	dzɛr-ɔn	'to tear off running'
	dzɛr-ɛ́s	'to tear'
fút-	fút-ón	'to blow (intrans.)'
	fút-és	'to blow (trans.)'
ídz-	ídz-on	'to drain, emit'
	ídz-es	'to shoot'
iɟók-	iɟók-ón	'to drool'
	iɟok-es´	'to lend'

Ditransitive verbs can be identified by their imperative forms: If the imperative of a verb requires the dummy pronoun enclitic {=´(d)ɛ}, that means an obligatory argument requires a morphological trace. The only three ditransitive verbs identified so far include *eg-* 'put', *ŋaar-* 'help', and *ma-* 'give' (Heine & König 1996:30). These are exemplifed in (7):

(7)   *Ik ditransitive verb roots*

Root	Imperative		
eg-	eg-é = dᵉ	(**eg-ᵉ)	'Put (it) (somewhere)!'
ŋaar-	ŋaar-ɛs-ɛ́ = dᵉ	(ŋaar-ɛ́s-∅)	'Help (someone)!'
ma-	ma-é = dᵉ	(**ma-ᵉ)	'Give (it) (to someone)!'

As discussed back in §6.3.6 on the topic of the accusative case, a handful of Ik motion verbs can be used intransitively or transitively. According to Dimmendaal, this is a property common in Cushitic and Omotic languages (2003:100). Ik ambitransitive motion verbs include *ats-* 'come', *ɪtá-* 'reach', and *ƙa-* 'go'. When used intransitively—as seems to be the normal case—their Goal or Destination is encoded with the dative case (-kᵉ). But when used transitively, their Goal~Purpose is encoded with a direct object case: either nominative (1-2 person subject) or accusative (-kᵃ) (3 person). Even so, the verb *ɪtá-* behaves a little differently than the other two. It appears to be a transitive verb with the ability to intransitivize: With a dative object, it has a meaning usually translated as 'find' in English:

(8) *Ik ambitransitive motions verbs*

Root		Object case	
ats-	atsa awá-kᵉ	Dative	'He's coming home.'
	atsa zɛƙɔ́-kᵃ	Accusative	'He's coming to sit.'
ɪtá-	ɪtáá ńtí-kᵉ	Dative	'He's found them.'
	ɪtáá awá-kᵃ	Accusative	'He's reached home.'
ƙa-	ƙaá hoo-kᵉ	Dative	'He's going in the hut.'
	ƙaa rɔ́ƙɛsɪ-kᵃ	Accusative	'He's going bee-keeping.'

Finally, a few Ik verbs are lexically specified for the number of one of their arguments—the subject if intransitive and the object if transitive. The following four pairs illustrate these number-based classes:

(9) *Number-based Ik verb root classes*

Singular	Plural	
bad-	ts'é-	'to die'
cɛ-	sáɓ-	'to kill'
ŋká-	gwám-	'to stand'
zéb-	turúí-	'to throw'
zɛƙw-	goƙ-	'to sit'

7.1.1 Basic roots

Ik basic verb roots are those considered morphologically unanalyzable. In some cases, insights gained from further historical-comparative research may disqualify some members currently put in this class of verbs. As the class stands, it exhibits eighteen syllable patterns and accompanying tone melodies. Each of these patterns is presented below, beginning with the most frequently occuring in a sampling of approximately 1000 verb roots.

The largest syllabic group of Ik verbs (365 out of 1000) has a CVC pattern. A sample of this group is presented in (10) according to tone melody. Even though L tone is generally not marked in this grammar, a floating L is given for the HL verbs to show that any following suffix must have a L tone due to the presence of the depressor consonants (see also §3.2.3):

(10)　*CVC verb roots*

H	ɗɛ́t-	'blow blowgun'
	náf-	'call rudely'
HL	bíz̀-	'press'
	zíz̀-	'be fat'
L	ɓoɓ-	'be deep'
	gam-	'kindle'

The second most numerous group (280 out of 1000) has a VCVC syllable pattern. This group includes but is not limited to what would be called the Class 2 counterparts of the CVC roots in (10); see §7.1.4 for Class 2 roots. HL and LHL melodies are created by the presence of depressor consonants:

(11)　*VCVC verb roots*

HH	áƙáf-	'yawn'
	ɛ́mít-	'wheeze'
HL	águ̱ɟ-	'gulp'
	íban-	'go later'

LL	emin-	'pull'
	ɪtsʊm-	'pierce'
LHL	erég̀-	'use'
	ɪlʊ́z̀-	'feel sleepy'
LH	arút-	'make sound'
	ɪd́ɪ́ŋ-	'be narrow'

After CVC and VCVC roots, the numbers in each syllable class get considerably smaller. From this point on, the basic root types are presented from smallest to largest in terms of the number of syllables:

(12) *V verb roots*

| H | í- | 'clear land' |
| | ó- | 'call' |

CV roots number about thirty-five (35) and include the following:

(13) *CV verb roots*

H	fá-	'boil (trans.)'
	ts'é-	'die (multiple people)'
L	cɪ-	'be satiated'
	ho-	'cut open'

VC roots number about forty-five (45) and include the following:

(14) *VC verb roots*

H	áts'-	'chew'
	íɲ-	'pound'
HL	éɗ̀-	'carry on the back'
	ɔ́b̀-	'occupy an area'
L	ep-	'sleep'
	iw-	'hit'

Depending on one's analysis, the verb roots in (15) can be thought of as CVC roots with an initial [-ATR] semi-vowel or VC with a diphthong:

(15)   *Verb roots with semi-vowels (CVC) or diphthongs (VC)*

	CVC	VC	
H	ĭéɓ-	i̯éɓ-	'be cold'
	ĭɔ́k-	i̯ɔ́k-	'bear fruit'
L	ĭɛ̃ƙ-	i̯ɛ̃ƙ-	'be far'
	ĭʊm-	i̯ʊm-	'kidnap for marriage'

A final, single-syllable root type involves a nasal, resulting in a NC syllable structure. Only one lexeme of this type has been found: *ŋƙ-* 'eat'.

Besides the VCVC roots listed above, other disyllabic roots, few in number, include those with CVCV, CVVC, VCV, and VVC syllable shapes:

(16)   *CVCV verb roots*

HL	ts'ágwa-	'be raw'
LL	tala-	'be long and straight'
	tɛwɛ-	'broadcast (seeds)'
LH	ɓorá-	'leave door open'
	taɲɛ́-	'spread out'

(17)   *CVVC verb roots*

HH	góóz-	'throw'
	ŋííɗ-	'rub'
LL	cook-	'shepherd'
	gaan-	'be bad'
LH	gwaít-	'leave angrily'

(18) *VCV verb roots*

HL	ógo-	'leave'
LL	ɪfɔ-	'scoot'
	ɪsa-	'miss (a shot)'
LH	iƙú-	'cry'
	isó-	'do first'

One verb root exhibits a NCV syllable structure: *ŋká-* 'stand up'.

Other verb roots with three or four syllables occur less frequently and include those with the syllable shapes CVCVCVC, CVCVVC, VCVCVC, VCVCV, VCVVC, VCVCVCVC, VCVCVCV, and VVCVVC.

Only one verb root has been indentified with the syllable shape of CVCVCVC: *tʊmʊ́dʊ́ŋ-* 'fold together'. The other syllable profiles also have few representatives, such as these below. Note again how the presence of depressor consonants has created the HLL and LHL tone melodies:

(19) *CVCVVC verb roots*

HHH	síƙɔ́ɔ́r-	'remove chaff with wind'
LLL	hakaik-	'forget'
LHH	tɔkéɛ́r-	'butcher a goat'

(20) *VCVCVC verb roots*

HLL	ígɔrɔb-	'jump a long distance'
	íbatal-	'put in a sling'
LHL	ikábur-	'wrap in clothing'
	ɪwízɪl-	'close one eye'
LHH	ifáfúk-	'swallow quickly'
	ɪmɔ́dɔ́r-	'be sooty black'

(21)   *VCVCV verb roots*

LHH	ikómá-	'move quickly'
	ɪtɔ́ƙá-	'hobble'

(22)   *VCVVC verb roots*

LLL	ɪɗaar-	'ambush'
	ɪmaar-	'count'
LHH	imáúr-	'be dizzy'
	ɪwɛ́ɛ́l-	'scatter'

The final two syllable types have only one identified member each:

(23)   *A couple of quadrisyllabic verb roots*

VCVCVCVC	itúlákáɲ-	'gulp down'
VCVCVCV	imóɲíka-	'cut upper branches'

7.1.2 *Partially reduplicated roots*

A fair number of Ik verbs are formed by the partial reduplication of the basic root. As in Turkana (Dimmendaal 1983:101), partial reduplication in Ik may have once been a productive morphological process with semantic significance, but this is not the case today. This is shown by the fact that, unlike for some of the fully reduplicated roots, the basic (un-reduplicated) counterparts of partially reduplicated roots cannot be found. Since full reduplication in Ik verbs expresses a repeated, continuous, or intensive action, it is likely that partial reduplication used to have a similar meaning.

Ik partial reduplication in verb roots involved copying the first two segments of the basic root and placing them before the basic root. Only CVC basic roots have undergone partial reduplication. Fossilized prefixes like *a-* or the proto-Nilotic causative prefix *ɪ/i-* present in so-called Class 2 verbs (v-CVC; see §7.1.4 below) do not figure into this equation. The copied segments get placed between such prefixes and the basic root.

The formula for Ik partial reduplication is given here in (24):

(24) *Ik partial reduplication in verbs*
$$*(v\text{-})C_1V_1C_2 \;\rightarrow\; *(v\text{-})C_1V_1\text{-}C_1V_1C_2$$

The next two example sets illustrate partial reduplication in Ik verb roots:

(25) *Reduplicated C_1V_1-$C_1V_1C_2$ verb roots*

*H-H	ɓíɓít-	'drink by sucking'
	wówój-	'overfill'
*H-L	dɔ́dɔr-	'scoot on buttocks'
	béber-	'pull'
*L-H	tsitsík-	'roll
	tsutsúk-	'rub with hands'

(26) *Reduplicated v-C_1V_1-$C_1V_1C_2$ verb roots*

*(H)L-L	(á)bʊbʊ́ƙ-	'scoop'
	(í)bʊbʊŋ-	'interfere with'
*(L)H-H	(a)kúkúr-	'crawl'

7.1.3 Fully reduplicated roots

A fair number of other Ik verbs are formed by a full reduplication of the basic root. On the one hand, unlike partial reduplication, full reduplication is a semi-productive word-formation process that can be used to add repetition, continuousness, or intensity to the meaning of the basic root:

(27) *Semi-productivity of full reduplication*

ɪtsán-	'disturb'	→	ɪtsanítsán-	'disturb a lot'
ƙɔ́ɗ-	'cry'	→	ƙɔ́ɗíƙɔ́ɗ-	'cry a lot'
táb`-	'touch'	→	tábitáb`-	'touch all over'

On the other hand, fully reduplicated roots can be found for which no un-reduplicated counterpart is available. The verb *itweɲítwéɲ-* 'twinkle' is one example. This word suggests an inherent repetitiveness, but if there ever was a un-reduplicated form like **itwéɲ-*, it has apparently fallen out of use.

Ik full reduplication involves copying the entire basic root, whether of a CV or CVC syllable type, and placing the copied segments to the left of the basic root. If there is a prefixed vowel, the copied segments go between the prefixed vowel and basic root. If a CVC root is copied, an epenthetic vowel /ɪ,i/ is inserted to prevent a disallowed consonant cluster. And if the nuclear vowel of the copied root is a high back vowel, then the epenthetic vowel backs as well to /ʊ/ or /u/. The formula for full reduplication is given here:

(28)   *Ik full reduplication in verbs*
        (v-)C_1V_1 →   (v-)C_1V_1-C_1V_1
        (v-)$C_1V_1C_2$ → (v-)$C_1V_1C_2$-ɪ-$C_1V_1C_2$

Below are some examples of full reduplication taking place with roots of different syllable shapes and tone patterns:

(29)   *Reduplicated C_1V_1-C_1V_1 verb roots*

L-L	koko-	'dig a hole to trap white-ants'

(30)   *Reduplicated v-C_1V_1-C_1V_1 verb roots*

(H)H-H	(í)ɓáɓá-	'treat gently'
(L)H-H	(a)lóló-	'hold by the handle'
	(ɪ)mámá-	'persuade gently'
	(ɪ)pápá-	'moisten'
	(i)tútú-	'dust off'

(31) *Reduplicated C₁V₁C₂-ɪ-C₁V₁C₂ verb roots*

HL-H	ƙérɪƙér-	'be bitter'
	múlʊƙʊ́ƙ-	'feel nauseated'
	nérɪnér-	'sway'
LL-L	botibot-	'be nomadic'
	cɛmɪcɛm-	'be combative'
	mɔɲɪmɔɲ-	'be slanderous'
LL-H	ɓarɪɓár-	'be sour'
	kupukúp-	'get cloudy'
	ƙwaɗɪƙwáɗ-	'lessen little by little'

(32) *Reduplicated v-C₁V₁C₂-ɪ-C₁V₁C₂ verb roots*

(H)-LL-H	(í)ƙɪɓɪƙíɓ-	'burn along slowly'
(H)-LL-L	(í)dɔlɪdɔl-	'speak with a rough voice'
	(í)duludul-	'soften by kneading'
	(í)bɛɗɪbɛɗ-	'open eyes slowly'
(L)-LH-H	(ɪ)ɓʊrúɓʊ́r-	'do quickly'
	(i)ɗotíɗót-	'hop on one leg'
	(ɪ)ŋɪníŋín-	'coo'
(L)-HH-H	(ɪ)lómúlóm-	'munch happily'
	(i)téƙítéƙ-	'nod the head'
	(i)wítsíwíts-	'wag'

7.1.4 Prefixed roots

Many Ik verb roots have frozen prefixes that are no longer meaningful in today's language (if they ever were after being borrowed). In some cases, the origin of the prefixes can be traced, for example those from Eastern Nilotic (particularly Teso-Turkana), while in other cases they cannot. As mentioned in the chapter on nouns, up to at least 40% of the Ik lexicon has parallels in Teso-Turkana. This section examines the borrowed Teso-Turkana prefixes, as well as some prefixes whose origin is not yet known.

Verb roots in the Turkana language (Teso-Turkana) are described as having two morphological classes. According to Dimmendaal, such verb classes are a common feature in both Eastern and Southern Nilotic (1983:98-99, here and for all information below on Turkana). Turkana verb classes are distinguished by the presence of a prefixed high front vowel in Class 1 and the absence of the vowel in Class 2. This prefix is a morphological relic of a proto-Nilotic causative that turned intransitive verbs into transitive ones (Dimmendaal 1982). The following verb sets are given as initial examples:

(33)   *Turkana morphological verb classes*

Class 1		Class 2	
-nɔm	'burn out	-ɪnɔ́m	'set on fire'
-nɔk	'be alight	-ɪnɔ́k	'light (trans.)'
-cɪ	'split (intrans.)'	-ɪcí	'split (trans.)'
-wal	'cough'	-iwál	'wear feathers'

Whichever morphological class a Turkana verb root belongs to affects the kind of inflectional affixes it may take. For the purposes of comparing with Ik, the Turkana subsecutive prefixes shown in (34) are particularly relevant, as discussed below. With the various vowel assimilation rules operating in Turkana, the prefixes in (34) may have the following additional allomorphs: *tɔ-* and *ta-* for Class 1 and *kɪ-*, *ku-*, and *kʊ-* for Class 2:

(34)   *Turkana subsecutive prefixes*

	Class 1		Class 2	
Person	Singular	Plural	Singular	Plural
1	a-to-	á-tó-	a-	á-
2	to-	to-	kí-	kí-
3	tó-	tó-	ki-	ki-

In a 1971 article on Ik grammar, A.N. Tucker was the first to point out that Ik also has two verb root classes based on syllable type: Class I with CVC

roots, Class II with iCVC roots (1971:343). This matches the situation in Turkana, which makes sense given that Ik has borrowed heavily from Teso-Turkana. As in Turkana, the prefixed vowel in the Ik Class II can no longer be analyzed as a separate morpheme synchronically, at least not as a transitivizing causative. This can be seen from the fact that many intransitive Ik verbs manifest this initial vowel, for example: *ɪkár-* 'be thin' and *itém-* 'be suitable'. Because this initial vowel is no longer meaningful, making the verb-class distinction is not helpful for a contemporary description of Ik grammar. After this section, which is included to aid in historical-comparative work, the idea of verb classes in Ik will be dropped.

In present-day Ik, verb roots beginning with the prefixes *to-*, *tɔ-*, or *ta-* are clear links to Class I verbs in Nilotic. Whether from Teso-Turkana or a language predating them, such verbs were likely borrowed into Ik in the high-frequency subsecutive forms (with the prefixes in 34). Ik marks the subsecutive ('sequential' in this grammar) with a suffix, so *to-*, *tɔ-*, or *ta-* (also *tʊ-*) would be redundant for encoding the subsecutive/sequential. That is why they are considered frozen prefixes in modern Ik. Examples of them include the following (Turkana lexical data is adapted from Barrett 1988):

(35)   *Turkana subsecutive verbs borrowed into Ik*

Ik Class I	Turkana Class I	
taɗáp-	-dap	'ambush'
tajál-	-jal	'relinquish'
talák-	-lak-	'release'
tatsá-	-ca	'shine'
tawán-	-wan	'hurt'
torik-	-rik	'lead'
tɔɓέl-	-bɛl	'split'
tɔɟέm-	-jam	'despise'
tɔkɪ́-	-kɪ	'confess'
tɔkɔ́r-	-kɔr	'distribute'
tɔmɔ́r-	-mɔr	'share'

tɔnʊ́p-	-nʊp	'believe'
tɔŋɔ́l-	-ŋɔl	'slaughter'
tʊɓʊ́n-	-bʊn	'suffocate'
tʊlʊ́ŋ-	-lʊŋ	'abhor'
tʊnʊ́k-	-nʊk	'bury'

By contrast, Ik verb roots borrowed from Teso-Turkana Class II verbs *cannot* be immediately recognized by a *ki-* or *kɪ-* prefix. In fact, there are only two Ik verb roots known to begin with that sequence of sounds. A very large percentage of Ik verb roots, however, begin with *ɪ-* or *i-*. It is tempting to assume that phonological reduction has whittled *ki-* and *kɪ-* down to just the vowels. While this may have actually happened in some cases, the situation is not so clear-cut. Ik verb roots beginning with a high front vowel may come from either Class I or Class II in Teso-Turkana. The data in (36) and (37) show a mismatch between so-called Class II verb roots in Ik and their parallels in Turkana. In (36), Class II Ik verbs align with Class I Turkana verbs, and in (37), Class II Ik verbs align with Class II Turkana verbs:

(36)   *Cognacy of Class II Ik verbs with Class I Turkana verbs*

Ik 'Class II'	Turkana Class I		Turkana prefix
ɪɓááŋ-	-baŋ	'be stupid'	tɔ/ta-
ɪɗak-	-kad	'lack'	tɔ/ta-
ɪɗɛ́p-	-dɛp	'pick up'	tɔ/ta-
ɪɗíŋ-	-dɪdɪŋ	'narrow'	tɔ/ta-
ɪlíɓ-	-lɪb-	'green'	tɔ/ta-
ɪkám-	-kop	'grab'	to-
ilúɲ-	-luɲ-	'pass'	to-
isúɗ-	-sud	'lie'	to-
itém-	-itemo-	'be fitting'	to-
itúk-	-tuk	'heap up'	to-

The Ik *ɪɗak-* compared with the Turkana *-kad* illustrates the kind of segment reversal identified by Blench (n.d.) as characterizing Kuliak etymology.

(37)   *Cognacy of Class II Ik verbs with Class II Turkana verbs*

Ik 'Class II'	Turkana Class II		Turkana prefix
ɪɓʊ́ŋ-	-bʊɲ	'hurry'	kɪ-
ɪɗaar-	-dar-	'ambush'	kɪ-
ɪɗĭts-	-dɪc	'beat'	kɪ-
ɪ̪jʊ́k-	-jʊk-	'push'	kɪ-
ɪkát-	-kat-	'try'	kɪ-
íbot-	-pot-	'jump'	ki-
iɓélé-	-bele-	'change'	ki-
ígom-	-komo	'bark'	ki-
ikóŋ-	-koŋ	'swear'	ki-
ilóts-	-loc	'transform'	ki-

Ik verb roots with frozen causative prefixes are not the only ones that have parallels in Teso-Turkana or wider Nilotic. Many others are nearly identical in both Ik and Teso-Turkana, differing only in minor phonological ways:

(38)   *Other Ik-Turkana verbal cognates*

Ik	Turkana	
alólóŋ-	-aloloŋ	'worry'
ep-	-pɛr	'sleep'
̪jal-	-gel-	'differ'
luƙ-	-lik	'swallow'
nɛpɛ́ƙ-	-peg-	'argue'
ɲaŋ-	-ɲaŋ	'avenge'
ŋáɓ`-	-nap	'wear'
ŋwaʃ-	-ŋwal	'be lame'
rɔ́t-	-rɔt	'spy out'
taats-	-tac	'pay'
táɓ`-	-tap	'touch'
takán-	-takan	'appear'
túɓ`-	-tʊp	'follow'

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The data above in (38) should not be taken to suggest that the direction of borrowing was always from Teso-Turkana into Ik. Many of these cognates, particularly since they lack Teso-Turkana subsecutive prefixes in Ik, may have come into Ik a) from a proto-Eastern Nilotic language, or b) they came into both Ik and Teso-Turkana from another source altogether. Either way, on the basis of the cognates in (38), the following sound correspondences can be set up between Ik and Teso-Turkana (# means a word boundary):

(39) *Sound correspondences between Ik and Teso-Turkana*

Ik		Teso-Turkana
#ʝ	↔	#g
ɠ#	↔	g#
ɠ	↔	k
ʃ (*ɬ)	↔	l
ts	↔	c [tʃ]
b	↔	p
u	↔	i
u	↔	ʊ
e	↔	ɛ

In addition to the many Teso-Turkana influences on the Ik verbal lexicon, there are also prefixal traces from other sources. These frozen prefixes include: *a-*, *ɛ/e-*, *ha-*, *tɛ/te-*, and *tɪ/ti-*. Although their etymological paths are currently unknown, two of them (*a-* and *tɪ/ti-*) are also found on nouns (§4.1.4). A few examples of each type are presented in (40). It is hoped that the data presented here will spark someone's historical-comparative insight:

(40) *Ik verbs with frozen prefixes of unknown origin*

/a-/	águʝ-	'gulp'
	áɠáf-	'yawn'
	alóló-	'hold by handle'
	arút-	'make a sound'
	asínít-	'dream'

/ɛ,e-/	emin-	'pull'
	erég̀-	'use'
	erúts-	'new'
	eset-	'ask'
	ɛ́mít-	'wheeze'
/ha-/	hakaik-	'forget'
	hákát-	'be boastful'
	hamʊɟ-	'grind finely'
/tɛ,te-/	tébin-	'lean on'
	terég̀-	'work'
	tetíŋ-	'be thick'
	tɛwɛ́-	'broadcast seed'
	tézɛɗ-	'bend one leg'
/tɪ,ti-/	tisíl-	'be lonely'
	titir-	'support'
	tɪlíw-	'be pure'
	tɪmíɗ-	'lick fingers'
	tɪríf-	'snoop'

7.2   Derivatives

With the discussion of verbal roots and archaic prefixes complete, it is time to move on to verbal suffixes. The first verbal suffixes to be described are the 'derivatives'—suffixes that derive a noun from a verb or vice versa. The Ik derivatives include the intransitive infinitive (§7.2.1), the transitive infinitive (7.2.2), the abstractive nominalizer (§7.2.3), the patientive nominalizer (§7.2.4), the substantive nominalizer/verbalizer (§7.2.5), and the behaviorative verbalizer (§7.2.6). Two other suffixes, the passive (§7.8.2) and the reciprocal (§7.8.6) may also optionally nominalize verbs. All eight derivative suffixes are presented below in (41). All derivative suffixes can be inflected for case, and three of them—the infinitivizers and the passive—can even be pluralized with the variative plurative (§4.3.7).

(41)   *Ik nominalizing suffixes*

{-ɔnɪ-}	INF	Intransitive	§7.2.1
{-ɛ́sɪ́-}	INF	Transitive	§7.2.2
{-ásɪ́-}	ABST	Abstractive	§7.2.3
{-amá⁺-}	PAT	Patientive	§7.2.4
{-VƙV-}	SUB	Substantive	§7.2.5
{-nanesi-}	BHVR	Behaviorative	§7.2.6
{-ɔ́sɪ́-}	PASS	Passive	§7.8.2
{-ínɔ́sɪ́-}	RECIP	Reciprocal	§7.8.6

7.2.1   Intransitive infinitive

Ik uses the suffix {-ɔnɪ-} to nominalize lexically intransitive verbs. As a non-finite verb, the resulting infinitive is syntactically subordinate. Cushitic languages show promising parallels for this suffix: Afar has *-o* and *-on* as an infinitive suffix (Mahaffy n.d., p. 1), and in K'abeena, one of the typical nominalizers is *-ood* (Mous 2012:411). A less sure but potential connection is with the South Omotic Dime's infinitive marker *-in* (Mulugeta 2008:60)

The tone of {-ɔnɪ-} is L, but H tone may spread to it depending the verb stem's tone melody (T7). It is recessively [-ATR] with /-oni-/ as an allomorph when affixed to [+ATR] stems. Although this suffix is usually the last affix on the verbal stem (i.e. before case suffixes), the andative/completive suffix {-ʊƙɔtí-} may optionally come before or after it, as in *bʊr-ɔn-ʊƙɔtᵃ* 'to fly away' versus *bʊr-ʊƙɔ́t-ɔn* 'to fly away'. The verbs in (42) illustrate the typical position of {-ɔnɪ-} within a verbal stem. Note the vowel harmony caused by the pluractional {-í-} and distributive {-aák⁺-}:

(42)   *Position of {-ɔnɪ-} in a verbal stem*

ʃɛɓ-ɔn	'to fear'
ʃeɓ-í-ón	'to fear habitually'
ʃeɓ-i-aak-ón	'to fear as a group'
ʃeɓ-i-aak-ón-uƙotᵃ	'to become fearful as a group'

And then the following table gives more examples of simple nominalized verbs with a variety of tonal patterns and the two [ATR] values:

(43)   *Intransitive infinitives*

	[-ATR]		[+ATR]	
H-HL	bɔ́r-ɔ́nɪ-	'to be tired'	bóts-óni-	'to be open'
	kán-ɔ́nɪ-	'to be cloudless'	ɠám-óni-	'to be like'
	súp-ɔ́nɪ-	'to breathe'	sár-óni-	'to still be'
H-LL	ŋɔ́z-ɔnɪ-	'to stare'	dód-oni-	'to hurt'
	rúb-ɔnɪ-	'to sprout'	háb-oni-	'to be hot'
	ʃíd-ɔnɪ-	'to be green'	wád-oni-	'to boil'
L-LL	bʊr-ɔnɪ-	'to fly'	bot-oni-	'to migrate'
	cɛm-ɔnɪ-	'to fight'	ɗas-oni-	'to be flat'
	ɗɔɠ-ɔnɪ-	'be wet'	faɗ-oni-	'to be bitter'

Verbs nominalized with {-ɔnɪ-} inflect for case, as shown in the following declensions of *bʊr-ɔnɪ-* 'to fly' and *bot-oni-* 'to migrate':

(44)   *Case declensions of {-ɔnɪ-}*

	Non-final	Final	Non-final	Final
OBL	bʊr-ɔnɪ	bʊr-ɔn	bot-oni	bot-on
NOM	bʊr-ɔn-a	bʊr-ɔn-∅	bot-on-a	bot-on-∅
INS	bʊr-ɔn-ɔ	bʊr-ɔn-ʷ	bot-on-o	bot-on-ʷ
ABL	bʊr-ɔnɔ-ɔ	bʊr-ɔnʊ-∅	bot-oni-o	bot-onu-∅
GEN	bʊr-ɔnɪ-ɛ	bʊr-ɔnɪ-∅	bot-oni-e	bot-oni-∅
ACC	bʊr-ɔnɪ-a	bʊr-ɔnɪ-kᵃ	bot-oni-a	bot-oni-kᵃ
DAT	bʊr-ɔnɪ-ɛ	bʊr-ɔnɪ-kᵉ	bot-oni-e	bot-oni-kᵉ
COP	bʊr-ɔnɔ-ɔ	bʊr-ɔnʊ-kᵓ	bot-oni-o	bot-onu-kᵒ

Among the deverbatives found in Turkana are the 'instrumental-locative' and 'factitive' (Dimmendaal 1983:282). Ik lacks both of those categories but covers their functions with the intransitive infinitive {-ɔnɪ-}. One of the functions of the Turkana 'instrumental-locative' is to convey a perfective aspect in a subordinate clause (Dimmendaal 1983:394). The next examples show how Ik does the same by using an infinitival subordinate clause:

(45) *Ŋabonuƙota kiɗie,…*

    ŋáb-ɔn-ʊƙɔt-a   ki = ɗí-é

    finish-INF-COMP-REAL   MED = PRO.PL-GEN

    Their having finished (lit. 'the finishing of those ones'),…

(46) *Atsona tsamu ntie,…*

    ats-on-a   tsamʊ   ńtí-eé

    come-INF-REAL   just   they-GEN

    Just after they come (lit. 'the coming just of them'),…

7.2.2 *Transitive infinitive*

Ik uses the suffix {-ésí-} to nominalize lexically transitive verbs. As a non-finite verb, the resulting infinitive is syntactically subordinate. Areal parallels for {-ésí-} cross the Afroasiatic/Nilo-Saharan phyletic boundaries to include the nominalizer -*ees* in South Cushitic's K'abeena (Mous 2012:411) and the nominalizer -*ɛɛðɪːt* in Surmic's Didinga (De Jong 2004:151).

This suffix has H tone on both syllables but is subject to two kinds of tonal alternation: 1) HL and LL patterns induced by the tone melody of the stem (T7) and 2) the supression its H tone leading to a LL melody (T6). Both of these are illustrated below. The suffix is underlyingly [-ATR] but has /-ésí-/ as an allomorph when affixed to a [+ATR] root or affix. It is always the last suffix in the verbal stem (before case markers apply), except when optionally followed by the andative/completive suffix {-ʊƙɔtí-}. Its normal position in the stem is demonstrated in the following four verbs:

(47)   *Position of {-ésí} in a verbal stem*

dzígw-es´	'to do commerce'
dzígw-et-és	'to buy'
dzígw-i-et-és	'to usually buy'
dzígw-es-uƙotaˊ	'to sell'

Other examples of transitive verbal infinitives are shown in (48) according to different tone melodies and both [ATR] values:

(48)   *Transitive infinitives*

	[-ATR]		[+ATR]	
H-HL	bɔ́t-ɛ́sɪ-	'to shave'	ɗóɗ-ési-	'to point'
	hɔ́n-ɛ́sɪ-	'to drive'	séɓ-ési-	'to sweep'
	kɔ́ŋ-ɛ́sɪ-	'to cook'	tír-ési-	'to hold'
H-LL	cɛ́b-ɛsɪ-	'to roughen'	bíz-esi-	'to press'
	dúb-ɛsɪ-	'to catch'	góg-esi-	'to puncture'
	zíz-ɛsɪ-	'to blame'	táb-esi-	'to touch'
L-HH	ban-ɛ́sí-	'to sharpen'	dim-ésí-	'to refuse'
	dɔts-ɛ́sí-	'to add'	fur-ésí-	'to scavenge'
	ɲɛɓ-ɛ́sí-	'to grumble'	poɗ-ésí-	'to thresh'

The infinitives in (48) exhibit tonal changes on {-ésí-} brought about by the melodic template completion (T7) of the verb roots. But transitive infinitives also give evidence of high-tone suppression (T6). Compare, for example, the ambitransitive root *tatsáɗ-* 'break away' as an intransitive (*tatsáɗ-óni-*) and transitive verb (*tatsaɗ-esí-*). On a suppressed transitive infinitive like *tatsaɗ-esí-*, only the final syllable bears H tone. But in its citation form, in the nominative case, the suppressed H shows up as a floating H, leading to a mid-level surface pitch. This and other examples are shown below in (50):

(50)   *High-tone suppresion in transitive infinitives*

aŋír-ésí-	→	aŋır-ɛs´	[āŋīr̄ɛ̄s]	'to turn'
gɛfér-ésí-	→	gɛfer-ɛs´	[gɛ̄fɛ̄r̄ɛ̄s]	'to stab'
iɓók-ésí-	→	iɓok-es´	[īɓōkēs]	'to shake'
tatsáɗ-és	→	tatsaɗ-es´	[tātsāɗēs]	'to break away'
tsitsík-ésí-	→	tsitsik-es´	[tsītsīkēs]	'to roll'

As deverbal nouns, transitive infinitives are inflected for case, as shown in (51) for the verbs *bɛr-ésí-* 'to build' and *bud-ésí-* 'to hide oneself':

(51)   *Case declensions of {-ésí--}*

	Non-final	Final	Non-final	Final
OBL	bɛr-ésí	bɛr-és	bud-ésí-	bud-és
NOM	bɛr-és-á	bɛr-és-∅	bud-és-á	bud-és-∅
INS	bɛr-és-ɔ́	bɛr-és-ᵓ	bud-és-ó	bud-és-º
ABL	bɛr-ésɔ́-ɔ	bɛr-ésú-∅	bud-ésí-o	bud-ésú-∅
GEN	bɛr-ésí-ɛ	bɛr-ésí-∅	bud-ésí-e	bud-ésí-∅
ACC	bɛr-ésí-a	bɛr-ésí-kᵃ	bud-ésí-a	bud-ésí-kᵃ
DAT	bɛr-ésí-ɛ	bɛr-ésí-kᵋ	bud-ésí-e	bud-ésí-kᵉ
COP	bɛr-ésɔ́-ɔ	bɛr-ésú-kᵓ	bud-ésí-o	bud-ésú-kº

Like the intransitive infinitive, the transitive infinitive can also be used to express perfective aspect in a subordinate clause, for example in (52). This is one of the language's several subordination strategies (see §10.5):

(52)   *Enesa ntie toimenaa ityoonukota imanona,...*

en-és-á   ńtí-e   toimena-a   ityóón-uƙot-á-a
see-INF-NOM   they-GEN   COMPL-ACC   difficult-COMP-REAL-PRF
Upon their seeing that it had become difficult,...

7.2.3 Abstractive

The verbal suffix {-ásí-} turns an intransitive stative verb into an abstract noun expressing a quality or characteristic. It seems to be closely related to the Turkana abstract nominalizer -sɪ̥ (Dimmendaal 1983:270), despite the difference in tone. The Ik suffix is one of the language's opaque recessive [-ATR] suffixes: [+ATR] harmony cannot spread from the root through /a/ to /ɪ/. Its tone is HH but is susceptible to root-induced tone changes (T7). The table below depicts the abstractive nominalization of ten stative verbs:

(53)   *Abtractively nominalized verbs*

Stative			Abstract	
do-oni-	'to be nice'	→	da-así-	'niceness'
ɛf-ɔnɪ-	'to be tasty'	→	ɛf-ásí-	'tastiness'
gaan-óni-	'to be bad'	→	gáán-asɪ-	'badness'
háb-oni-	'to be hot'	→	háb-asɪ-	'heat'
ɪɛ̠k-ɔnɪ-	'to be far'	→	ɪɛ̠k-ásí-	'farness'
kom-oni	'to be many'	→	kom-ásí-	'manyness'
maráŋ-óni-	'to be good'	→	maráŋ-ásɪ-	'goodness'
ŋɪʃ-ɔnɪ-	'to be strong'	→	ŋɪʃ-ásí-	'strength'
ŋwaʃ-ɔnɪ-	'to be lame'	→	ŋwaʃ-ásí-	'lameness'
ʃɛɓ-ɔnɪ-	'to be afraid'	→	ʃɛɓ-ásí-	'fear'

By all appearances, the abstractive nominalizer {-ásí-} is a productive morpheme in today's Ik. However, there is another abstractive nominalizer that is not productive. This suffix, *-ísí-, has been found on only two lexemes: *tsekísí-* 'bushes, thicket' from the root *tsek-* 'be bushy, hairy' and *zeísí-* 'importance, greatness' from the verb root *ze-* 'big'. This suffix would seem to be an older Eastern Nilotic morpheme now semi-lexicalized in Ik. Like {-ásí-}, *-ísí- has parallels in the Teso-Turkana abstract deverbative -sɪ̥ and the Didinga (Surmic) nominalizer -ɪð (De Jong 2004:151).

Just like the infinitive suffixes described above, the abstractive nominalizer inflects fully for case, as shown in (54) for the word *ʃɛɓ-ásɪ́-* 'fear, timidity':

(54)   *Case declension of {-ásɪ́-}*

	Non-final	Final
OBL	ʃɛɓ-ásɪ́	ʃɛɓ-ás
NOM	ʃɛɓ-ás-á	ʃɛɓ-ás-∅
INS	ʃɛɓ-ás-ɔ́	ʃɛɓ-ás-ˀ
ABL	ʃɛɓ-ásɔ́-ɔ	ʃɛɓ-ásʊ́-∅
GEN	ʃɛɓ-ásɪ́-ɛ	ʃɛɓ-ásɪ́-∅
ACC	ʃɛɓ-ásɪ́-a	ʃɛɓ-ásɪ́-kᵃ
DAT	ʃɛɓ-ásɪ́-ɛ	ʃɛɓ-ásɪ́-kᵉ
COP	ʃɛɓ-ásɔ́-ɔ	ʃɛɓ-ásʊ́-kˀ

The abstractive nominalizer differs from the two infinitivizers in that it can again take verbal affixes, specifically subject-agreement pronominals. So far this has only been heard with the word *háb-as* 'heat', which has the metaphorical meaning of 'stinginess'. If one refuses a request in a way deemed ungenerous, one may hear the phrase *háb-as-íd*ᵃ 'You are stingy!'.

7.2.4 Patientive

The patientive suffix {-amá-} nominalizes verbs—mostly transitive ones but also intransitive ones. Etymologically, it may be related to the word *ámá-* 'person'—perhaps as the semi-grammaticalized agentive (§4.3.4)—and/or the human singulative {-Vma-}. The patientive suffix's LH tone melody is invariable, regardless of the preceding root. It is also one of the language's opaque [+ATR] morphemes and as such can be represented as {-amá⁺-}. This means that the case suffixes that follow it will also be [+ATR].

This morpheme {-amá-} is called the 'patientive' here because in most cases it encodes the semantic Patient of a transitive verb. Elsewhere it has been described as expressing the notions of 'potentiality' or 'feasability' (Heine &

König 1996:98). With this suffix, the patient is given a rather stative passive role that is not easy to gloss in English. One strategy is to use the English suffix '-able' in the gloss, as in an 'X-able thing'. As a nominalizer, this suffix attaches to a verb stem and creates a noun that combines the meaning of the transitive verb stem and its patient. Examples of patientives formed from transitive verbs include the following:

(55)   *Patientive nominalizer*

Transitive			Patientive	
abut-i-és	'to sip'	→	abut-i-amá-	'sippable thing'
dzíɠw-es	'to sell'	→	dzíɠw-amá-	'buyable thing'
erég-es	'to use'	→	erég-amá-	'useable thing'
isuɗ-es	'to lie'	→	isuɗ-amá-	'nonsense'
me-et-és	'to give'	→	me-et-amá-	'gift'
ŋƙ-ɛ́s	'to eat'	→	ŋƙ-amá-	'eatable thing'
ógoɗ-és	'to keep'	→	ógoɗes-amá-	'leftovers'
tɔkɔ́b-ɛs	'to farm'	→	tɔkɔb-amá-	'arable land'

In addition to the examples in (55), other nouns formed with the patientive nominalizer fall into two peculiar semantic groups: 1) food items and 2) small objects. These groups are exemplified in (56) and (57):

(56)   *Patientive food items*

íbots-amá-	'milk cream'
ízot-amá-	'solid food with gravy'
ɪlɪr-amá-	'food without gravy'
ɹul-amá-	'chunks of leftover meat'
ƙɛƙɛr-amá-	'mixture of honey and pounded white-ants'
tɔƙ-amá-	'pure white ants'
tʊɗʊt-amá-	'solid food'

(57)   *Patientive small objects*

bɪtɪt-amá-	'product'
botet-amá-	'splinter'
gúɗús-amá-	'burnt piece of wood'
ɪlʊlʊŋ-amá-	'fist'
ipelet-amá-	'wood chip'
iyom-amá-	'work of art'
mʊkʊt-amá-	'fist'
kíɓɛz-amá-	'splinter'
pɛsɛl-amá-	'small piece'

Although for some of these examples, the corresponding verbs have been found (e.g. *kɛ́kɛ́r-* 'mix honey and white-ants' and *bɪtɪt-* 'produce'), for most others, no independent transitive verb has yet been identified. But this could be a gap in research. There is also one example where an intransitive verb takes this suffix: *ɓar-* 'to be sour' nominalized as *ɓar-amá-* 'sour porridge'. So although the term 'patientive' seems to reasonably represent this morpheme today, in the past its meaning and usage could have been more diverse.

As a nominalizing suffix, {-amá-} is inflected fully for case, as shown below for the word *ŋk̓-amá-* 'eatable thing':

(58)   *Case declension of {-amá-}*

	Non-final	Final
OBL	ŋk̓-ama	ŋk̓-am´
NOM	ŋk̓-am-a	ŋk̓-am-∅´
INS	ŋk̓-am-ɔ	ŋk̓-am-ʷ´
ABL	ŋk̓-amó-ó	ŋk̓-amá-ᵒ
GEN	ŋk̓-amé-é	ŋk̓-amá-ᵉ
ACC	ŋk̓-amá-á	ŋk̓-amá-kᵃ
DAT	ŋk̓-amé-é	ŋk̓-amá-kᵉ
COP	ŋk̓-amó-ó	ŋk̓-amá-kᵒ

7.2.5 Substantive

The rare suffix {-VɓV-} is both a nominalizer and a verbalizer. As a nominalizer, it gives a verb the meaning 'substance of X verb'. As a verbalizer, it gives a noun the meaning 'to issue X substance'. That both vowels (V) in {-VɓV-} should be the same seems like a heuristic for tracking down instances of the suffix in the lexicon. So far the only unambiguous cases contain either /a/ or /o/. The suffix's tone is L but may bear H tone spread from the verb root (T7). Here are the only four clear examples:

(59) *Substantive nominalizer/verbalizer {-VɓV-}*

Verb			Deverbal noun	
ɗas-	'to be flat'	→	ɗas-oɓo-	'flatland'
ŋɓ-	'to eat'	→	ŋɓ-áɓá-	'food'
Noun			Denominal verb	
ets'í-	'feces'	→	nts'-áɓá-	'to defecate'
kwatsí-	'urine'	→	kʊts-áɓá-	'to urinate'

The data in (59) show that in its verbalizing function, {-VɓV-} accompanies some morphological variation, i.e. /e/→/n/ in *nts'-áɓá-* 'feces' and /w(a)/→/ʊ/ in *kʊts-áɓá-* 'urine'. This variation, plus the rarity of the suffix at all, suggests that the substantive is a very old morpheme within Ik.

Other lexemes ending in the sequence *-VɓV* include those in (60). Whether they involve the substantive suffix or not is not known because corresponding roots without the suffix have not yet been identified:

(60) *Ambiguous instances of the sequence -VɓV-*

bɔrɔɓɔɓɔ-	'tobacco cone'
karoɓo-	'burnt land'
ɔfɔrɔɓɔ-	'dry honeycomb'
tʊfɛrɛɓɛ-	'Black Jack weed'

7.2.6 Behaviorative

Besides the nominalizers described in the last five sections, Ik also has one strictly verbalizing derivative. This verbalizer, the 'behaviorative' {-nanesi-}, creates a verb out of a noun and has the meaning of 'to behave with the characteristics of X noun'. The suffix is complex, consisting of *-nan* on the one hand and *-esi-* on the other. The latter is probably a distinct grammaticalization of the Ik proto-morpheme *-ɛsɪ* that has led to the 1) transitive infinitive suffix, 2) the imperfective aspect suffix, and 3) the intentional modality suffix. Because {-nanesi-} conveys an ongoing, habitual sense to the denominal verb, it seems more closely related to the meaning of the imperfective aspectual instantiation of the proto-morpheme. Since nothing more is known about *-nan*, the behaviorative verbalizer is treated as a historically complex but synchronically composite verbal suffix.

The behaviorative suffix's tone is L, but a H tone may spread to its first syllable from the nominal stem (T7). Because it contains /a/, {-nanesi-} prevents its own [+ATR] harmony from spreading back to a [-ATR] stem. The following table presents a sample of nouns verbalized by {-nanesi-}:

(61) *The behaviorative verbalizer {-nanesi-}*

Noun			Verbalized noun	
badirétí-	'wizardry'	→	badirétí-nanesi-	'to do wizardry'
cekí-	'woman'	→	cekí-nánesi-	'to act womanly'
dzúú-	'theft'	→	dzú-nánesi-	'to do thievery'
ẹakwá-	'man'	→	ẹakwá-nánesi-	'to act manly'
imá-	'child'	→	imá-nánesi-	'to act childishly'
ƙʊts'á-	'worm'	→	ƙʊts'á-nánesi-	'to be corrupting'
lɔŋɔ́tá-	'enemies'	→	lɔŋɔ́tá-nanesi-	'to be hostile'
lejée-	'madness'	→	lejé-nánesi-	'to be mad'
ɲót-íkó-	'friends'	→	ɲót-íkó-nanesi-	'to be friendly'
ŋókí-	'dog'	→	ŋókí-nanesi-	'to be poor'

7.4   Directionals

Directional suffixes in Ik include the andative {-ʊkɔtí-} and venitive {-ɛt}. The andative denotes motion away from a deictic center, while the venitive denotes motion toward it. The deictic center is usually the speaker but can be another place, provided the speaker and hearer share the reference. Directionals are an integral and important part of Ik verbal semantics but as much so as aspectual markers as directional (§7.9.2-7.9.3). The directionals and their aspectual counterparts are highly but not fully productive; speakers have an intuition for which combinations are natural. In nearby Turkana, directional suffixes are only found on dynamic verbs (Dimmendaal 1983:110). Not so in Ik: They are found on all verb types. The table below illustrates the directional nuances expessed by these two suffixes:

(62)   *Ik directional suffixes*

ɪlá-	'go somewhere'
ɪlɔ́-ɔ́n	'to go somewhere'
ɪlɛ́-ɛ́t-ɔn	'to come here'
ɪlɔ́-ɔ́n-ʊƙɔt[a]	'to go there'
raɟ-	'return (trans.)'
raɟ-és	'to return'
raɟ-et-és	'to return here'
raɟ-és-úƙot[a]	'to return there'

7.4.1 Andative

The suffix {-ʊƙɔtí-} communicates motion away from a deictic center. It is called 'andative' here in keeping with Kuliakist tradition, but 'itive' would be another appropriate lable. The Ik andative has a promising parallel in the Surmic language Didinga's itive suffix *-oð* (De Jong 2004:150). The sequence /-ʊƙ-/ within {-ʊƙɔtí-} calls to mind the substantive suffix {-VƙV}, but at present there is nothing obvious linking the two semantically.

The andative suffix has a LL(H) melody but is susceptible to several tonal alternations. For example, the depressor consonant /d/ in the 2SG suffix {-ídɪ-} repells H tone back onto the andative (T4), as in the verb *hɔn-ʋƙɔ́-íd^a* 'You drive (it) away.' Then, H tone may spread onto its first syllable as the preceding morpheme completes its tonal melody (T7), as in the verb *ŋʋr-ɛ́s-ʋ́ƙɔt^a* 'to cut'. Lastly, a particular verb paradigm, like the sequential aspect, can totally replace the tones of the andative (T8), for example in the verb form *hɔn-ʋ́ƙɔ́-ɛsɛ* 'And it was driven away.' In terms of vowel harmony, the andative has the allomorph /-ʋƙotí-/ after [+ATR] stem. In a verb infinitive, {-ʋƙɔtí-} usually comes last, after the root and infinitive suffix. But it can also come before the infinitive suffix with no change in meaning. The following examples show the two positions of the andative:

(63)   *Position of {-ʋƙɔtí-} within a verb*

ár-ón-uƙot^a	ár-úƙot-on	'to cross over'
ep-on-uƙot^a´	ep-uƙót-on	'to lie down'
ŋʋr-ɛ́s-ʋ́ƙɔt^a	ŋʋr-ʋƙɔt-ɛ́s	'to cut'
itútú-és-uƙot^a	itútú-úƙot-és	'to beat out dust'

As already mentioned, the andative communicates motion away from a deictic center. This semantic enhancement is further demonstrated (64):

(64)   *Verbs with the andative suffix {-ʋƙɔtí-}*

ár-ón	'to cross'	→	ár-ón-uƙot^a	'to cross over (away)'
bʋr-ɔn	'to fly'	→	bʋr-ɔn-uƙot^a	'to fly away'
hɔn-ɛ́s	'to drive'	→	hɔn-ɛ́s-ʋ́ƙɔt^a	'to drive away'
raɟ-és	'to return'	→	raɟ-és-úƙot^a	'to take back'
zéb-es	'to toss'	→	zéb-es-uƙot^a	'to toss away'

Although the andative is not a nominalizer *per se*, it is forced to inflect for case on verbal infinitives because it usually occurs stem-finally between the nominalizers {-ɔnɪ-} and {-ɛ́sí-} and case suffixes. (65) depicts the full case inflection of the verb *bʋr-ɔn-ʋƙɔt^a* 'to fly away':

(65) *Case declension of {-ʊkɔtí-}*

Case	Non-final	Final
OBL	bʊr-ɔn-ʊkɔtɪ	bʊr-ɔn-ʊkɔtˡ́
NOM	bʊr-ɔn-ʊkɔt-a	bʊr-ɔn-ʊkɔt-áˊ
INS	bʊr-ɔn-ʊkɔt-ɔ	bʊr-ɔn-ʊkɔt-ɔˊ
ABL	bʊr-ɔn-ʊkɔtɔ́-ɔ́	bʊr-ɔn-ʊkɔtú-∅
GEN	bʊr-ɔn-ʊkɔtí-ɛ́	bʊr-ɔn-ʊkɔtí-∅
ACC	bʊr-ɔn-ʊkɔtí-á	bʊr-ɔn-ʊkɔtí-kᵃ
DAT	bʊr-ɔn-ʊkɔtí-ɛ́	bʊr-ɔn-ʊkɔtí-kᵉ
COP	bʊr-ɔn-ʊkɔtɔ́-ɔ́	bʊr-ɔn-ʊkɔtú-kᵓ

The andative suffix undergoes haplology (§2.5.1) when followed by certain suffixes. For example, the /t/ in {-ʊkɔtí-} is dropped before the second person singular {-ídɪ-}, the second person plural {-ítí-}, and the first person plural inclusive {-ísínɪ-} subject-markers, making /-ʊkɔ-/ an allomorph. For some reason, haplology fails to apply to 3PL. This allomorphy is so common that it appears to be obligatory, but some speakers claim it is grammatically 'incorrect'. The following paradigm illustrates this type of haplology:

(66) *Andative haplology with subject-agreement suffixes*

1SG	hɔn-ʊkɔt-í	'I drive (it) away.'
2SG	hɔn-ʊkɔ́-ídᵃ	'You drive (it) away.'
3SG	hɔn-ʊkɔt-áˊ	'S/he drives (it) away.'
1PL.EXC	hɔn-ʊkɔt-ím	'We (exc.) drive (it) away.'
1PL.INC	hɔn-ʊkɔ-ísín	'We (inc.) drive (it) away.'
2PL	hɔn-ʊkɔ-ítᵃ	'You all drive (it) away.'
3PL	hɔn-ʊkɔt-átᵃ	'They drive (it) away.'

The final /t/ in the andative {-ʊkɔtí-} is dropped before a variety of other suffixes as well, including the imperative singular {-ɛ́}, the sequential impersonal passive {-ɛsɛ́}, and the dummy pronoun {=́(d)ɛ}. With the imperative singular, haplology only occurs in non-final environments, as in:

(67)   *Andative haplology with other suffixes*

	Non-final	Final	
IMP.SG	hɔn-ʊƙɔ-ɛ	hɔn-ʊƙɔt-ᵋ	'Drive away!'
SPS	hɔn-úƙɔ́-ɛsɛ	hɔn-úƙɔ́-ɛs	'And it was driven away.'
DP	hɔn-ʊ-kɔ́=ɛ	hɔn-ʊ-kɔ́=dᵋ	'He drove it away with it.'

7.4.2 Venitive

The venitive (or 'ventive') suffix has the form {-ɛt-} with a [+ATR] allomorph /-et-/ on [+ATR] stems. As the andative's counterpart, the venitive communicates motion toward a deictic center, usually but not always the speaker. (Once a speaker was heard shouting the question *ŋát-ét-ɪa* 'Should I run there?' to someone, indicating that the motion of his running would be toward the hearer rather than toward the speaker.) No clear etymological parallels for this suffix have been found in languages of the region. But one clue comes from the Kuliak language So: Just as the So venitive suffix *-ac* is related to the verb *ac-* 'to come' (Carlin 1993:50), the Ik ventive {-ɛt-} could potentially be related to the Ik verb *ats-*, also meaning 'come'. Granted, this is a stretch given the tonal and segmental differences.

The verbs in (68) illustrate three key properites of the venitive: 1) its position between the root (or stem with preceding suffixes) and the infinitive suffix, 2) the 'this way' directional nuance added to the basic meaning of a verb, and 3) its two tonal allomorphs, /-ét/ and /-ɛt/:

(68)   *Verbs with the venitive suffix {-ɛt-}*

ár-óni-	'to cross'	→	ar-ét-óni-	'to cross (over here)'
ŋat-ɔnɪ-	'to run'	→	ŋat-ét-ɔ́nɪ-	'to run (this way)'
ɗʊr-ɛ́sí-	'to pull'	→	ɗʊr-ɛt-ɛ́sí-	'to pull out'
gon-ésí-	'to look'	→	gon-et-ésí-	'to look here'
raɟ-ésí-	'to return'	→	raɟ-et-ésí-	'to return here'

Because verbs like *dʊr-ɛt-ɛ́sɪ́* 'to pull out' pattern tonally with L-toned verbs like *ɪdak-ɛ́sɪ́* 'to lack', the underlying tone of {-ɛt-} is posited as L. But even so, it may bear H tone in several contexts. For instance, H tone may spread to it from a preceding root (T7), as in *fút-ét-u-kᵒ* 'And he blew (this way)'. But also, a general tendency is observed in the venitive paradigms—the preference for a HH tonal peak within the word (T8). For example, the verb *ŋat-ét-ɔ́n* 'to run this way' in (68) exhibits a HH peak despite the absence of underlying H on any of the three morphemes. Another example comes from words like *ŋús-ét-ineˊ* 'Let me grab (it) (this way)' in which the first two morphemes are underlyingly L-toned. Also, high-tone suppression (T6) is operative with the venitive, as in the verb *fut-et-ím* 'We are blowing (this way)', where the H tone of the verb *fút-* 'blow' has been suppressed. The venitive paradigms in (69) below compare verbs with and without {-ɛt-} their non-final, realis, non-past forms to better show the tonal complexity:

(68)　　*Venitive tonal behavior*

	fút-ési- 'to blow'	fut-et-ésí- 'to blow this way'
1sg	fút-í-a	fut-et-í-á
2sg	fút-íd-a	fut-é-íd-a
3sg	fút-á	fut-et-aˊ
1pl.exc	fút-ím-a	fut-et-ím-á
1pl.inc	fút-ísin-a	fut-e-ísín-a
2pl	fút-ít-a	fut-e-ít-á
3pl	fút-át-a	fut-et-át-a
	ŋus-ésí- 'to grab'	ŋus-et-ésí- 'to grab this way'
1sg	ŋus-í-á	ŋus-et-í-á
2sg	ŋus-íd-a	ŋus-é-íd-a
3sg	ŋus-a	ŋus-et-aˊ
1pl.exc	ŋus-ím-á	ŋus-et-ím-á
1pl.inc	ŋus-ísín-a	ŋus-e-ísín-a
2pl	ŋus-ít-á	ŋus-e-ít-á
3pl	ŋus-át-a	ŋus-et-át-a

Unlike the andative, the venitive comes before infinitive suffixes in a nominalized verb. For that reason, case suffixes never attach to {-ɛt-} directly. But like the andative, the venitive undergoes haplology in the 2SG, 1PL.INC, and 2PL members of its paradigms, as shown in (69):

(69) *Venitive haplology with subject-agreement suffixes*

1SG	ŋat-ɛt-í	'I run this way.'
2SG	ŋat-ɛ́-íd[a]	'You run this way.'
3SG	ŋat-ɛt-a´	'S/he runs this way.'
1PL.EXC	ŋat-ɛt-ím	'We (exc.) run this way.'
1PL.INC	ŋat-ɛ-ísín	'We (inc.) run this way.'
2PL	ŋat-ɛ-ít[a]	'You all run this way.'
3PL	ŋat-ɛt-át[a]	'They run this way.'

It also undergoes haplology before the imperative singular (non-final only) and sequential impersonal passive suffixes as shown below in (70):

(70) *Venitive haplology with other suffixes*

	Non-final	Final	
IMP.SG	hɔn-ɛ-ɛ	hɔn-ɛt-ɛ´	'Drive (it) (this way)!'
SPS	hɔ́n-ɛ́-ɛsɛ	hɔ́n-ɛ́-ɛs´	'And it was driven (this way)'

7.5 Subject-agreement pronominals

Ik subject-agreement pronominal suffixes mark the grammatical person (1-2-3) and number (SG and PL) of the subject. Like in neighboring Teso-Turkana and Kuliak languages, these suffixes make a distinction in the 1PL between exclusive (excluding the addressee) and inclusive (including the addressee). The sex of the subject is not specified in the third person singular. The underlying forms of these suffixes are posited as [-ATR] with [+ATR] allomorphs in the presence of dominant [+ATR] stems or affixes. Lastly, the suffixes are also subject to a range of tonal phenomena including high-tone suppression (T6) and melodic template completion (T7).

The Ik subject-agreement pronominals were already described in §5.1.4, and the reader is referred there for details not repeated in this section. The table in (71) presents the subject-agreement suffixes as they are analyzed here:

(71)   *Ik bound pronominal suffixes*

1SG	-íí
2SG	-ídɪ
3SG	-ɪ
1PL.EXC	-ímí
1PL.INC	-ísínɪ
2PL	-ítí
3PL	-áti

The realis modality morpheme {-a} subtracts the final vowel of the pronominals shown in (71). This means practically that 3SG is zero-marked in the realis modality: The realis morpheme {-a} subtracts the 3SG morpheme {-ɪ} making 3SG zero-marked. To avoid the cumbersome usage of ∅ in place of the subtracted 3SG pronominal, no morpheme gloss is given for 3SG in the realis modality. Whenever a given verb in the realis has no subject-agreement marker, it is understood that subject marking is for 3SG.

First and second person subjects (S/A) are always cross-referenced on the verb by means of personal pronominal suffixes. 3SG subjects are too, even if only by a zero-morpheme. But as pointed out by König, 3PL subjects are inconsistenly cross-referenced on verbs (2008:84). The 3PL suffix is only obligatory when 1) no independent subject is present, 2) when the subject is the 3PL personal pronoun *ńt-á*, and 3) when the subject is preposed before the verb like in a subordinate clause with simultaneous aspect.

For example, in (72) below, no overt subject is present, so the 3PL suffix must be present, while in (73) the 3PL personal pronoun *ńt-á* (in the NOM case) also requires the suffix. The preverbal subject in (74), *gwágwaicéá*, also requires the 3PL suffix on the verb coming after it:

(72) *Saɓukotataa Fetiicek.*

    sáɓ-úƙot-át-a-a   fetí-ícé-kᵃ

    kill[PL]-COMP-3PL-REAL-PRF   sun-AGT.PL-ACC

    They have killed the Jie ('sun people', i.e. from the East).

(73) *Saɓukotataa nta Fetiicek.*

    sáɓ-úƙot-át-a-a   ńt-á   fetí-ícé-kᵃ

    kill[PL]-COMP-3PL-REAL-PRF   they-NOM   sun-AGT.PL-ACC

    They have killed the Jie ('sun people', i.e. from the East).

(74) *Na Gwagwaicea saɓukotatie Fetiicek,...*

    na = gwágwa-icé-á   sáɓ-úƙot-áti-e   fetí-ícé-kᵃ

    CONJ = Dodoth-AGT.PL-ACC   kill[pl]-COMP-3PL-SIML   sun-AGT.PL-ACC

    When the Dodoth killed the Jie,…

However, the 3PL pronominal suffix is ungrammatical if an independent nominal (postverbal) subject is present in the clause. Unlike examples (72)-(74), example (75) contains the nominal plural postverbal subject *gwágwaika*, resulting in the verb being zero-marked as 3SG:

(75) *Saɓukotaa Gwagwaika Fetiicek.*

    sáɓ-úƙot-á-á   gwágwa-ik-a   fetí-ícé-kᵃ

    kill[PL]-COMP-REAL-PRF   Dodoth-AGT.PL-NOM sun-AGT.PL-ACC

    The Dodoth have killed the Jie.

3rd-person marking on verbs in relative clauses is optional, but not so much as to be in complete free variation. With some exceptions, the trend among Ik speakers is to use a 3SG verb in a relative clause modifying a plural noun. This is true whether the plural noun is overtly marked with a plurative or whether it is lexically specified as plural. The following two examples compare number marking in a relative clauses modifying the lexically plural *mɛná-* 'issues' and the morphologically plural *mɛná-ícík* 'various things':

(76) *Itetia noo menee ni maraŋ.*

it-et-í-á=noo   mɛné-é=[ni   maráŋ-∅]_{REL}

come-VEN-1SG-REAL=PST3   issues-DAT=REL.PL   good[3SG]-REAL

I found good things/circumstances.

(77) *Menaicika ni ƙama tasapeti.*

mɛná-ícík-a=[ni   ƙám-á   tasapetí-∅]_{REL}

issues-PL-NOM=REL.PL   be.like[3SG]-REAL   initiation-GEN

Things like initiation

However, the suppletive plural of *ƙɔ́rɔ́ɓádɪ-* 'thing'—*ƙúrúɓádi-* 'things'—and the plural pronoun *ɗi-* 'ones' provide some counter-examples:

(78) *Kuruɓaa ni ƙamata dziberikae.*

kúrúɓá-a=[ni   ƙám-át-a   dzibér-íka-^e]_{REL}

things-NOM=REL.PL   be.like-3PL-REAL   axe-PL-GEN

Things (that are) like axes

(79) *Ɗa sini boluƙotat.*

ɗ-a=[sini   bol-uƙot-át-^a]_{REL}

ones-NOM=PST2.REL.PL   stop-COMP-3PL-REAL

The ones that stopped (yesterday)

But nouns that are lexically specified with a general or neutral numeric value can go either way in terms of relative clause marking. Example (80) shows the general noun *dáŋá-* 'white ant(s)' taking singular marking in a relative clause, while in (81), the noun *tóda-* 'speech' take plural marking:

(80) *Kutese hakwesie daŋee ni kom.*

kʊt-ɛsɛ hakw-ésí-e   dáŋé-e=[ni   kom-∅]_{REL}

say-SPS harvest-INF-DAT   white.ant-GEN=REL.PL   many[3SG]-REAL

It was decided to harvest a lot of white ants.

(81)   *Toda ni ƙamata ɗie njini.*

    tód-a = [ni   ƙám-át-a   ɗi-é   ɲjíní-∅]_REL
    speech-NOM = REL.PL   be.like-3PL-REAL ones-GEN   we.INC-GEN
    Speech that is like ours.

7.6   Dummy pronominal clitic

The particle {=´dɛ} is used to mark the absence of a peripheral argument from its usual post-verbal position. It was already treated under §5.10 due to its having a pronominal function, and the reader is referred there for more details on its meaning and syntactic function. Heine was the first to recognize this particle, which he called the 'dummy pronoun' (1983:119). He also pointed out that the dummy pronoun may be a grammaticalization of the singular anaphoric demonstrative =ᵀdɛ́ɛ́ described ahead in §8.2.3. The dummy pronoun is analyzed as an enclitic in this grammar because no verbal affixes—no matter which or how many—can come after it.

An initial survey of regional languages indicates that {=´dɛ} can be linked most strongly to the Afroasiatic language family. From within Cushitic, Afar has a 'positional indicator' *eda-* (Mahaffy n.d., p. 29), while the 'locative postpositioned clitic' of Saho has the form *-dde* or *-d* (Banti & Vergari 2005:14). Switching subgroups, the South Omotic language Dime's ablative marker *-de* has the meaning 'from' or 'out of' (Mulugeta 2008:57). If the Ik dummy pronoun is related historically to the Dime ablative suffix, this could mean that {=´dɛ} in Ik developed into a purely grammatical morpheme.

The dummy pronoun enclitic has a L tone on its vowel but a preceding floating H tone. This floating H is posited on the basis of the H tone that usually appears on the preceding tone-bearing unit. Since the /d/ in {=´dɛ} is a depressor consonant, the floating H may have been lexicalized in order to compensate for the depressing effect of the depressor consonant. The dummy pronoun is a recessive morpheme that has the allomorph /=´de/ when attached to [+ATR] stems. The dummy pronoun is also subject to

vowel assimilation, segment loss in non-final forms, and final-form devoicing, giving it the numerous allomorphs presented in (82). The final-form allomorphs, with devoiced vowels and segments, sound a lot like [t̪]. And the allomorphs /=ˊɛ/ and /=ˊe/ have at times been confused with the dative case non-final allomorph /ɛ,e/ (e.g. Heine & König 1996:25).

(82)   *Allomorphs of the dummy pronoun {=ˊdɛ}*

	Non-final	Final
{=ˊdɛ}	=ˊɛ	=ˊdᵉ [t̪ɛ̥]/[t̪˞]
	=ˊe	=ˊdᵉ [t̪e̥]/[t̪˞]
	=ˊɪ	
	=ˊi	
	=ˊɔ	
	=ˊo	
	=ˊde	

As noted above, the dummy pronoun (DP) always occurs last on the verbal stem, regardless of other preceding verbal suffixes. The trio of examples in (83) show its position, even as more and more suffixes are added:

(83)   *Stem-final position of the dummy pronoun*

ats-át-a=dᵉ	come-3PL-REAL=DP
ats-áti-ké=dᵉ	come-3PL-SIML=DP
ats-i-áti-ké=dᵉ	come-PLUR-3PL-SIML=DP

When found clause-medially, however, the dummy pronoun can be hard to identify because of its many allomorphs (shown in 82 above). Each of the non-final allomorphs listed in (84) is given one example below:

(84)   *Naita noo mitee ayi...*
naítá=noo   mɪt-ɛ́=ɛ   ai   {=ˊdɛ}→/=ˊɛ/
degree=PST3   be-REAL=DP   side[OBL]
Since ('the degree to which') it was the side...

(85) *Noo iyanee Mayee Ɗiw,…*

noo   i-an-é=e   mayé-e   ɗiw-∅   {=ˈdɛ}→/=ˈe/
PST3 be-IPS-REAL=DP   reedbuck-DAT   red-REAL

When people were at Red Reedbuck,…

(86) *Naiꝁotinii ɗemʊs.*

na-ɪꝁɔt-ɪní=ɪ   ɗɛmʊs   {=ˈdɛ}→/=ˈɪ/
get.used-COMP-SEQ=DP   fast

So they get used to it quickly.

(87) *Toɗoini ɲapanꝁaik.*

toɗó-íní=i   ɲápaŋꝁá-ik-°   {=ˈdɛ}→/=ˈi/
start-SEQ=DP   machete-PL-INS

And they fell on him with machetes.

(88) *J'ejiakoo ja nk.*

ɟɛɟ-ɪa-kó=o=ja   ŋk-ª   {=ˈdɛ}→/=ˈɔ/
stay-1SG-SEQ=DP=ADV   I-NOM

So then I stayed there.

(89) *Keesukoo ja roɓa budesik.*

ꝁe-ésú-kó=o=ja   roɓ-a   bud-ésí-kª   {=ˈdɛ}→/=ˈo/
go-IPFV-SEQ=DP=ADV   people-NOM   hide-INF-ACC

So then the people went there to hide (themselves).

But on a 1SG verb, the unreduced allomorph of the dummy pronoun is found clause-medially, as shown in (90). This is apparently to avoid an interrupted sequence of three vowels, each belonging to a distinct morpheme:

(90) *Ntsʊo naa imoɗiade bik.*

ntsú-ó=naa   ɪmɔ́ɗ-í-a=de   bi-kª   (**ɪmɔ́ɗ-í-a=e)
it-COP=PST1   trick-1SG-REAL=DP   you.SG-ACC

That's why I tricked you.

7.7   Modals

Ik grammar specifies the non-spatial setting of utterances with a varity of modality and aspect-marking suffixes, as well as tense-marking and epistemic clitics and particles. This section examines the verbal affixes that express sentential modality, that is, how speakers perceive the predication in terms of its actuality, likelihood, or relevance. The modal notions conveyed by these affixes include reality, necessity, and desire.

In the Teso-Turkana languages surrounding Ik, the most basic verbal distinction is perfective versus imperfective aspect. Not so in Ik: Instead, the most basic distinction is a modal one between irrealis and realis. Heine was the first to take note of this, though he called the realis the 'aorist'—"the most unmarked tense…that denotes actions or states in the past, present, or without reference to time…" (1983:132). König also recognized this modal distinction, claiming that "the morphologically unmarked realis form is used for present and past contexts, the derived irrealis form (expressed by the suffix -es-) covers future" (2008:83). So up to now, realis was thought to be unmarked, and irrealis was through to be marked by the suffix -és/és.

Contrary to Heine and König (1996:84 [typed as 73]), it is claimed here that the irrealis, rather than the realis, is the morphologically unmarked member of the pair. It is also claimed that neither irrealis nor realis have anything to do with time or tense *per se*. Though realis forms cooccur with tense clitics far more often than irrealis ones, irrealis verb forms can also cooccur with tense clitics. Finally, the suffix -és/és which König posits as the irrealis suffix is analyzed in this grammar as a marker both of 'intentional' modality (cf. Serzisko 1992) and imperfective aspect.

The verb form that Heine termed 'the most unmarked tense' and König called 'the morphologically unmarked realis' is identified by the suffix {-a}. The meaning and function of this vowel has long perplexed researchers studying Ik. Crazzolara deemed this vowel 'meaningless' (1967:9), while

Tucker called it a 'complemental suffix' without further explanation (1971:349). Heine labeled it the 'thematic final vowel', which he recognized as also characteristic of his 'absolute' nominal case (1983:132). Because this vowel was found on verbs in basic declarative sentences in past, present, and future tenses, it was assumed to be an unmarked realis form, e.g.:

(91)   *Atsida nak.*
      ats-íd-a = nak[a]
      come-2SG-? = PST1
      You came (earlier today).

(92)   *Atsidak.*
      ats-íd-a-k[a]
      come-2SG-?-PRF
      You have come.

(93)   *Atsesid.*
      ats-és-íd-[a]
      come-INT-2SG-?
      You will come.

By contrast, verb forms without {-a}, like those in the sequential and simultaneous aspects, were assumed to be marked irrealis forms:

(94)   *Atsiduk.*
      ats-idu-k[oʼ]
      come-2SG-SEQ
      And you come.

(95)   *atsidik.*
      ats-ídi-k[e]
      come-2SG-SIML
      ...as you come.

In light of these examples, a fundamental distinction emerges from Ik verbs between forms that manifest the vowel /-a/ and those that do not (but rather retain the subject-agreement suffixes' underlying final vowels). Thus the starting point for the irrealis-realis division posited here is this very morphological distinction, rather than a primarily semantic one. Unquestionably, the morphological distinction is there, yet the semantic bases for it have not yet fully come to light. The table below presents the two groups of verb forms defined by whether they contain /-a/ or /-ɪ,i/:

(96) *A morphological division of Ik verb forms*

With /-a/		
Past	atsíd-a=nak[a]	'You came.'
Present perfect	ats-íd-a-k[a]	'You've come.'
Intentional	ats-és-íd-[a]	'You will come.'
Prohibitive	máá ats-íd-[a]	'Don't come.'
With /-ɪ,i/		
Sequential	ats-idu-k[o']	'And you come/came.'
Simultaneous	ats-ídi-k[e]	'As/when you come/came,'
Optative	ats-idí′	'May you come.'
Negated past	máá=naa ats-íd[i]	'You haven't come.'
Negated non-past	ńtá ats-íd[i]	'You don't come.'

As argued in §5.1.4, the underlying forms of the subject-agreement suffixes end in the vowel /ɪ,i/, including the 2SG suffix {-ídɪ-} shown in (96). So the 2SG suffix in the first four verbs in (96) must have had its final vowel substracted by a morpheme {-a}. The subtractive behavior shown by {-a} in those examples is identical to that of the nominative case suffix which subtracts a noun's final vowel. Since the nominative case is marked rather than unmarked in Ik, the forms containing {-a} in (96) are also analyzed here as marked. Similarly, just as the oblique case preserves the lexical form of a noun (i.e. is unmarked), so the last five verbs in (96) preserve the underlying form of the 2SG suffix {-ídɪ-} leaving them unmarked also.

The verb forms in (96) with a 2sɢ suffix ending in /i/ are vaguely irrealis-like, if irrealis is "used to refer to an event...possible or imagined, as opposed to one that is actually happening or has happened (Matthews 2007:204). (Even though the sequential and simultaneous aspects can be modified by tense clitics, historical actuality does not seem to be their main meaning.) By contrast, if realis is used "to distinguish events...that actually happened or are happening (Matthews 2007:334)," then only the first two verbs in (96) clearly qualify for this definition. But if the intending of the intentional and the prohibiting of the prohibitive can be considered already actualized, then their membership in that category becomes more plausible.

In summary, Ik irrealis and realis modalities can be defined as follows:

- Irrealis—modality used for predications whose temporal realization is not grammatically encoded.
- Realis—modality used for predications:
  a. Whose temporal realization *is* grammatically encoded, or
  b. That are not irrealis, or
  c. That are characterized by some yet unknown feature.

7.7.1 Irrealis

The irrealis modality in Ik is zero-marked. When pertinent, the zero-marking may be glossed in square brackets as [ɪʀʀ], but otherwise it will not be reflected in the glossing of examples (as opposed to realis). As mentioned above, the irrealis modality is reserved for predications whose temporal realization is not grammatically encoded. Irrealis is the base form for a variety of modal and aspectual categories, including the following:

(97)   Negative past: *Maa atsid.*

má-á   ats-íd[i]

not-REAL   come-2sɢ[ɪʀʀ]

You haven't come.

(98) Negative non-past: *Nta atsid.*
    ńt-á   ats-íd^i
    not-REAL   come-2SG[IRR]
    You don't come.

(99) Optative: *Talake atsidi.*
    talák-é   ats-idi´
    let.go-IMP.SG   come-2SG.OPT[IRR]
    And then you came.

(100) Subjunctive: *Demusu atsid.*
    ɗɛmʊsʊ   ats-íd^i
    before   come-2SG.SUBJ[IRR]
    Unless/until you come.

(101) Sequential: *Atsiduk.*
    ats-idu-k^oʹ
    come-2SG[IRR]-SEQ
    And then you come.

(102) Simultaneous: *Na atsidik,...*
    na = ats-ídi-k^e
    CONJ = come-2SG[IRR]-SIML
    When you came,…

In (97) and (98), the negating verbs *ma-* and *ńt-* act as the main verb and are marked with the realis suffix {-a}. As verbs, these negators negate the clause, taking the irrealis verb form *atsíd^i* as a complement. Since the event in question—'your coming'—did not or does not take place, the complement falls under the domain of the irrealis modality.

When it comes to the optative, a wish is by definition something that has not been fulfilled, that is, temporally realized—hence the irrealis modality. The subjunctive, too, is used to code something contingent and unrealized.

Both the sequential and simultaneous aspectuals are used in clause chains, where the actuality of the chain is established by an initial verb (on clause chaining, see §10.2). Though tense particles can be used with these aspectuals, it is rarely encountered. The main function of these suffixes is to convey the relative rather than absolute timing of events. So whether the predication in the clause chain really happened depends on the initial verb.

7.7.2 Realis

The realis modality in Ik is marked by the suffix {-a} which subtracts the final vowel of the morpheme to which it attaches. As discussed above, the realis modality is posited largely on the basis of morphology (i.e. the presense of /a/). The semantic cohesion unifying the following instances of the realis modality is at least remotely conceivable but not totally satisfying:

(103)   Non-past/gnomic: *Atsida awao.*
ats-íd-a   awá-°
come-2SG-REAL   home-ABL
You come from home.

(104)   Past: *Atsida noo awao.*
ats-íd-a = noo   awá-°
come-2SG-REAL = PST3   home-ABL
You came from home.

(105)   Intentional: *Atsesida taa.*
ats-és-íd-a   táa
come-INT-2SG-REAL   FUT2
You will come next time.

(106) Prohibitive: *Maa atsid.*

                                  má-á   ats-íd-[a]

                                  not-REAL   come-2SG-REAL

                                  Don't come.

As evident from (103)-(104), the realis modality coincides with the straightforward expression of temporally realized states or events in the present or past. The intentional and prohibitive instances of the realis modality may be admitted on the basis of some kind of cognitive actuality whereby intention and prohibition are happening at the time of speech.

7.7.3 Intentional

Strictly speaking, Ik has no inflectional marker of future tense. It is the future tense adverbial particles (§7.10.2) along with the realis modality marker on verbs that allows the notion of futurity to be expressed. However, the suffix {-és-} is also usually employed alongside these other components. The suffix is here called 'intentional', a term borrowed from Serzisko 1992.

The intentional suffix has H tone, but it may take a L tone as a result of high-tone suppression (T6), melodic template completion (T7), or replacive morphological tone (T8). In terms of vowel harmony, it is a recessive suffix with /-és-/ as an allomorph when affixed to a [+ATR] stem.

The intentional suffix and the imperfective suffix (§7.9.1) are formally identical (homophonous). Their meaning and function are also very close. For these reasons, they are thought to have arisen from a single morpheme diachronically. In some usages, the interpretation of {-és-} is truly ambiguous, while in others, either intentionality/imminency or imperfectivity makes more sense in the local context. Neither intentionality/imminency nor imperfectivity adequately accounts for all the uses of {-és-}. That is why, with some tentativeness, the two functors are treated in this grammar as synchronically separate morphemes.

The intentional suffix {-ɛ́s-} expresses intentionality with animate subjects and imminency with inaminate ones. When added to a non-past realis verb like the one in (107) below, the {-ɛ́s-} gives the verb a sense of unrealized latent potentiality or 'about-to-ness'. As such, the sentence in (108) could be more insightfully glossed as 'I am going to/about to be thirsty (lit. 'The sun is about to/going to eat me'). Nevertheless, native Ik speakers consistently translate {-ɛ́s-} verbs with the English future 'will' (keeping in mind that 'will' is also a grammaticalization of a verb of intentionality in English):

(107) *Nƙa feta ncik.*

  ŋƙ-a   fet-á   ɲci-kᵃ

  eat-REAL sun-NOM I-ACC

  I am thirsty (lit. 'The sun is eating me').

(108) *Nƙesa feta ncik.*

  ŋƙ-ɛ́s-á   fet-á   ɲci-kᵃ

  eat-INT-REAL sun-NOM I-ACC

  I will get thirsty (lit. 'The sun will eat me').

The sentence in (109) is a simple past-tense statement. The subject's coming is viewed as a once-off, completed action. But when {-ɛ́s-} is added to the verb in (110), it signifies that the subject merely intends to come. Whether or not the intention was realized is not grammatically encoded:

(109) *Atsia nak.*

  ats-í-á=nakᵃ

  come-1SG-REAL=PST1

  I came earlier today.

(110) *Atsesia nak.*

  ats-ɛ́s-í-a=nakᵃ

  come-INT-1SG-REAL=PST1

  I was about to come earlier today.

The sentence in (111) is a particularly interesting example of the intentionality encoded by {-ɛ́s-}. It is a sentence that was uttered by an Ik child just waking up from a nap. It was made as an announcement of intention, with a pragmatic sense of asking permission. The child had not begun moving to get down but was sitting still, waiting for a response:

(111)   *Atsesia kiɟak.*

       ats-és-í-a   kíɟá-kᵉ

       come-INT-1SG-REAL l and-DAT

       I intend/want/will (to) come down.

With regard to the analytical ambiguities of {-ɛ́s-}, a strictly imperfective interpretation of (111) would entail that the process of coming had already begun and had internal temporal duration. This is clearly not the case because the child was sitting motionless. The only way to keep an imperfective interpretation would be to assume that the child's mental process of intending to come down is already part of the coming. But encoding the temporal duration of cognitive processes (as precursors to action) does not seem to be the normal function of an imperfective aspect. That is why examples like (111) point to something more like intentionality.

A final comment: As Serzisko recognized (1992:205), there are verbs in which {-ɛ́s-} occurs twice in sequence. It is not known whether these are a) instances of the intentional and imperfective occuring together (which would be evidence of two separate morphemes) or b) instances of the doubling of either suffix. Nor is it clear how this dilemma could be resolved:

(112)   *Dzuesesa bats.*

       dzu-es-és-á = batsᵉ

       steal-?-?-REAL = PST2

       He was going to steal (and did?) (yesterday).

7.7.4 Optative

The optative mood is encoded grammatically in three concurrent ways: 1) a floating H tone (often with high-tone suppression of preceding H's) 2) neutralization of pre-pause devoicing, and 3) a handful of suppletive suffixes occuring unevenly throughout the paradigm. The floating H tone gives even L-toned verbs mid-pitch, even before a pause. The neutralization of pre-pause vowel devoicing can be represented by an autosegmental morpheme like {-[+voice]}. And so the following table summarizes the two autosegmental markers together with the segmental ones:

(113) *Optative mood markers*

	Tonal	Vowel quality	Segmental
1SG	V́→V́	V_[+voice]#	-ɪnɛ́
2SG	V́→V́	V_[+voice]#	
3SG	V́→V́	V_[+voice]#	
1PL.EXC	V́→V́	V_[+voice]#	-ɪma´
1PL.INC	V́→V́	V_[+voice]#	-ano´
2PL	V́→V́	V_[+voice]#	
3PL	V́→V́	V_[+voice]#	

The three segmental optative morphemes all have a LL tone melody with a floating H tone. Their tone may change to HL after a H-tone verb (T7) or to LH before the dummy pronoun { =´dɛ}. The suffixes {-ɪnɛ´} and {-ɪma´} are susceptible to vowel harmony when affixed to [+ATR] stems. The suffix {-ano´}, on the other hand, is an opaque dominant morpheme that therefore does not change [ATR] categories. It is, moreover, the only one of the three for which areal (Cushitic) parallels have been found, namely the Saho 1PL 'subjunctive' suffix *-no* (Banti & Vergari 2005:4) and the Somali 1PL.INC 'jussive' suffix *-no* (Lamberti 1984:5)—both obviously related to each other.

The table in (114) illustrates the complex optative-marking strategy with full optative paradigms for the verbs *fút-és* 'to blow' and *bɛr-ɛ́s* 'to build':

(114) *Optative mood paradigm*

	'blow'	'build'
1SG	fút-íné´	bɛr-ɪnɛ´
2SG	fút-ídi´	bɛr-ɪdɪ´
3SG	fút-í	bɛr-ɪ´
1PL.EXC	fút-íma´	bɛr-ɪma´
1PL.INC	fút-áno´	bɛr-ano´
2PL	fút-íti´	bɛr-ɪtɪ´
3PL	fút-áti´	bɛr-áti´

The optative mood is used to express a wish, even an ironic negative wish in the form of a resignation. And with the appropriate auxiliary verb, the optative has been grammaticalized into use as an irrealis narrative mood.

Besides the morphological markers presented in (113), optative verbs are also commonly recognized by the auxiliary verbs *ógo-* 'leave/let' or *talák-* 'let go' occuring in the imperative mood, for example:

(115) *Ogoyuo ƙaati.*
       ógo-íó   ƙá-áti´
       leave-IMP.PL g   go-3PL[OPT]
       Let them go.

(116) *Talake atsati.*
       talák-é   ats-áti´
       let.go-IMP.SG   come-3PL[OPT]
       Let them come.

The optative mood has been grammaticalized into use as a sort of narrative mood alongside the sequential aspect. In this usage, it must be preceded by the imperative *talák-é* 'let go' (sometimes shortened to *aláké*), which is related to the Teso-Turkana *-lak* 'let go', a synonym of the Ik *ógo-* 'let/leave':

(117) *Talake atsati, talake koŋatii toboŋ.*

talák-é   ats-átíˊ   talák-é   kɔŋ-átí=i   tɔbɔŋˀˊ

let.go-IMP   come-3PL[OPT] let.go-IMP cook-3PL[OPT]=DP posho[OBL]

And then they came, and then they cooked posho with it (a pot).

[Lit: 'Let them come, let them cook posho with it.]

(118) *Talake daŋadidi toɗoi.*

talák-é   dáŋá-didí   toɗó-iˊ

let.go-IMP   white.ant-rain[OBL] fall-3SG[OPT]

And then the white-ant rain fell.

[Lit: 'Let the white-ant rain fall.']

In Ik, both overt subjects and objects of imperatives take the oblique case. Note that in (117) and (118), every clausal argument is zero-marked: Nouns are in the oblique case, and verbal complements are in the optative (an irrealis) mood. This type of argument-marking can be explained by positing the optative-narrative mood as a grammaticalization of the optative mood and the optative mood as a grammaticalization of an imperative clause.

As a narrative mood marker, *taláké* can be followed by verbs in the sequential and simultaneous aspects as well as the optative:

(119) *Talake ƙanetia takwiak.*

talák-é   ƙan-ét-i-a   takw-i-a-kºˊ

let.go-IMP   take-VEN-1SG-SEQ   step.on-1SG-SEQ

And then I took (it) and stepped on (it).

(120) *Talake ƙotuo komitik.*

talák-é   ƙó-tu-o   kom-ítí-kᵉ

let.go-IMP   go-2PL-SEQ many-2PL-SIML

And then you go when you are many.

As indicated in (113), Ik has {-ɪnɛ́} as a special 1SG optative suffix. Heine &
König point out that the suffix could also be analyzed as {-nɛ́} (1996:82).
Without further information, it is difficult to know which analysis is better.
The following two sentences exemplify the use of {-ɪnɛ́}. Note that the form
ƙóne 'Let me go' in (121) is irregular in the paradigm for the verb *ƙa-* 'go':

(121)   *Tebetine ɲemeleku awoo ne.*
        tέb-ɛt-ɪnɛ   ɲémɛlɛkú   awó-ó = ne
        get-VEN-1SG[OPT]   hoe[OBL]   home-ABL = MED.DEM.SG
        Let me get a hoe from that home.

(122)   *Kone sabak.*
        ƙó-ne   saba-kᵉ
        go-1SG[OPT]   river-DAT
        Let me go to the river.

The 1PL.INC optative, marked with the invariable suffix {-anó}, could also
be called the 'hortative'. The optative-hortative mood is used to encourage
or command a group of people of which the speaker is a part. Since it is
inherently 1ˢᵗ person, it is usually translated into English as 'Let us…':

(123)   *Idimano ɲamiili na.*
        ɪɗɪm-ano   ɲámɪɪlɪ = na
        fix-1PL.INC[OPT] bicycle[OBL] = DEM.SG
        Let's fix this bicycle.

(124)   *Atsuo ƙaano beɗetano ƙakaaƙo.*
        ats-úó   ƙá-áno   bέɗ-έt-ano   ƙaƙa-aƙɔ-∅
        come-IMP   go-1PL.INC[OPT] want-VEN-1PL.INC[OPT]   hunt-inside-ABL
        Come let's go, let's look for (it) while hunting.

7.7.5 Subjunctive

The subjunctive mood (along with negative polarity) is the quintessential irrealis mood in that it is zero-marked. That is, it is recognized morphologically by the subject-agreement suffixes surfacing in their underlying forms. Syntactically, it is recognized by a couple of conjunctions.

The subjunctive mood is used to encode propositions that are contingent and temporally unrealized. Note that the 'subjunctive' as intended here differs from that found in previous Ik studies (e.g. Heine & König 1996, König 2002) which is called the 'simultaneous' aspect in this grammar.

The following table presents the subjunctive mood paradigms for the verbs *fút-és* 'to blow' and *bɛr-és* 'to build':

(125) *Subjunctive mood paradigm*

	Non-final	Final	Non-final	Final
1SG	fút-íí	fút-í[i]	bɛr-íí	bɛr-í[ᵗ]
2SG	fút-ídi	fút-íd[i]	bɛr-ídɪ	bɛr-íd[ᵗ]
3SG	fút-í	fút-[i]	bɛr-ɪ	bɛr-∅
1PL.EXC	fút-ímí	fút-ím	bɛr-ímí	bɛr-ím
1PL.INC	fút-ísíni	fút-ísín	bɛr-ísínɪ	bɛr-ísín
2PL	fút-ítí	fút-ít[i]	bɛr-ítí	bɛr-ít[ᵗ]
3PL	fút-áti	fút-át[i]	bɛr-áti	bɛr-át[i]

Verbs in the subjunctive mood are found in subordinate clauses introduced by the words *ɗɛmʊsʊ* 'unless, until, before' and *damu* or *damu koja* 'may':

(126) *Xeikweese cua ɗemusu fetia pelemet.*

ʃɛ-íƙw-ɛ́ɛse   cu-a   [ɗɛmʊsʊ fetí-á   pɛlɛ́m-ɛ́t-ᵗ]ₛᵤᵦₒᵣ𝒹
sprinkle-AND-SPS water-NOM before   sun-ACC appear-VEN-3SG[SUBJ]
And water is sprinkled before the sun comes up.

(127) *Demusu Pakoicea deti riyaa,*

[ɗɛmʊsʊ   pakó-íce-a   det-i   rié-á]_{SUBORD}

until   cave-AGT.PL-ACC bring-3SG[SUBJ] goat(s)-ACC

Until the Turkana brought goats,

isio noo ŋabian?

isi-o=noo   ŋáb-i-an-∅

what-COP=PST3   wear-PLUR-IPS-REAL

what was usually worn?

(128) *Damu soreimaa na mituɓoti ɗi ɦyoos.*

damu soréím-a=na   mɪt-ʊƙɔt-ɪ   ɗɪ   ɦyo-ós-∅

may boy-NOM=DEM.SG be-COMP-3SG[SUBJ] one[OBL] know-PASS-REAL

May this boy become (a) famous (one).

(129) *Damu koja maidi ntsik.*

damu koja ma-ídi   ntsí-kᵉ

may   give-2SG[SUBJ] s/he-DAT

May you give (it) to her.

7.7.6 Imperative

The imperative mood in Ik is marked by the suffix {-ɛ́} for singular and {-íɔ́} for plural. A likely parallel for the singular imperative suffix is the singular imperative suffix *-e* found in the Cushitic languages Boni and Gidole (Lamberti 1984:5). As for the plural suffix, it recalls the Cushitic language Dhaasanac's imperative plural suffix *-é* which has the assimilated allomorph *-ó*, as in *kosol-ó* 'Laugh (pl.)!' (Tosco 2001:114).

The floating H tone of {-ɛ́} is posited on the basis of the isolation forms of L-toned imperative verbs that surface with mid instead of low pitch. The plural suffix {-íɔ́} may bear L tones when following a H-toned stem ending in a depressor consonant, as in the command *ƙád-u* 'Shoot (pl.)!'. Both

suffixes are recessively [-ATR] but have /-eʹ/ and /-íó/ as [+ATR] allomorphs. The plural suffix is also particularly susceptible to vowel assimilation, as when the command *ats-íó* 'Come (pl.)!' becomes *ats-úó* or when the command *bɛr-íɔ́* 'Build (pl.)!' becomes *bɛr-úɔ́* or even *bɛr-ɔ́ɔ́*.

The imperative mood is used to issue direct commands, for example:

(130) *Ats.*　　　　　　　*Atse nayee na.*
　　　ats-eʹ　　　　　　　ats-e　　　　naí-é=na
　　　come-IMP.SG　　　　come-IMP.SG　here-DAT=DEM.SG
　　　Come.　　　　　　　Come here.

(131) *Atsu.*　　　　　　　*Atsuo nayee na.*
　　　ats-úº　　　　　　　ats-úó　　　　naí-é=na
　　　come-IMP.PL　　　　come-IMP.PL　here-DAT=DEM.SG
　　　Come.　　　　　　　Come here.

Any core arguments in an imperative clause take the oblique case. This includes subjects and direct objects. Imperative subjects are also claimed to exist in Turkana (Dimmendaal 1983:179), but they could also be vocatives. And as König noted, the use of the oblique for core arguments in the imperative mood is another example of case neutralization in Ik (2008:7):

(132) *Kaidee ɗi nak.*
　　　ƙái-d-e-e　　　　　　ɗɪ=nákª
　　　go-bring-VEN-IMP.SG　　one[OBL]=DEM.SG.PST1
　　　Go bring the earlier one.

(133) *Ogoyuo biti ati na.*
　　　ógo-íó　　　　biti　　　　átí=na
　　　leave-IMP.PL　you.PL[OBL]　FILL[OBL]=DEM.SG
　　　You (pl.) leave this whatcha-ma-callit!

The imperative verb in (132) is a fusion of two verbs, *ƙa-* 'go' and *d-et-* 'bring' that have been reanalyzed as a single verb. This is evident from phrases spoken by children, like *ƙáidetineˊ* 'Let me go-and-bring'. The object of this transitive verb in (132) is *dɨ* in the oblique case. As for (133), both the subject *biti* 'you (pl.)' and the object *átí* 'filler word' are in the oblique.

On an imperative verb stem, the imperative suffixes are usually the last morpheme. Only the dummy pronoun enclitic { =ˊdɛ} can follow them:

(134)   *Irimitete nc.*
        ɪrím-ít-ɛt-ɛ́   ɲcⁱ
        spin-CAUS-VEN-IMP.SG   I[OBL]
        Spin me around.

(135)   *Tsaituƙotuo kwetik.*
        tsá-ít-uƙot-úó   kwɛt-ɪkᵃ
        dry-CAUS-COMP-IMP.PL   hand-PL[OBL]
        Dry your hands.

(136)   *Yanuod.*
        ɪ̧án-úɔ́=dᵉ
        talk-IMP.PL=DP
        Talk to them.

Polite imperatives are made with the soliticive intonational tune which consists of vowel lengthening and a boundary H tone (§3.3.5), for example:

(137)   *Maxane biroɓakee!*
        máʃán-ɛ   bi-róɓá-keé
        greet-IMP.SG   you.SG-people-DAT
        Say 'hi' to your people, okay?

The neighboring Turkana language reportedly does not allow double imperatives (Dimmendaal 1983:183), but Ik does, as in the following:

(138) *Atse zeƙwete karatsik.*

ats-e   zɛƙw-ɛt-ɛ   káratsi-kᵉ

come-IMP.SG s   it-VEN-IMP.SG   stool-DAT

Come sit down on the stool.

Negated imperatives—prohibitives— are significantly different in form from the affirmative ones. They involve the highly irregular negating verbs *ma-/na-* and the particle *ejá* plus the negated verb as a complement in the realis mood with subject-agreement suffixes. Prohibitives are touched on in the next section and more fully treated ahead in §10.13.

7.7.7 Negative

Negative polarity in Ik depends on the irrealis-realis distinction for morphological manifestation. In other words, there is no independent marking for polarity, in particular for negative polarity. Negation is expressed in Ik with a combination of highly irregular negating verbs and modal suffixes (irrealis or realis). This section presents only a brief summary; see §10.13 for a more complete discussion of negation.

The following table introduces the Ik negating verbs, the modality of their negated complements, the types of clauses they can negate:

(139) *Ik negating verbs*

Negator	Verb type	Complement	Clause type
ńt-	Non-past realis	Irrealis	Main
ma- (na-)	a) Past realis	Irrealis	Main
	b) Imperative	Realis	Main
mo- (SEQ)	Irrealis	Irrealis	Subordinate

The negating verbs in (139) fill the syntactic slot for a clause's main verb. Then the negated main verb follows in the irrealis mood (or realis mood, in the case of prohibitives) as a kind of complement clause, for example:

(140)   *Nta ƙod.*
        ńt-á   ƙó-dⁱ
        not-REAL   go-2SG[IRR]
        You don't go.

(141)   *Maa naa ƙod.*
        má-á=naa   ƙó-dⁱ
        not-REAL=PST1 go-2SG[IRR]
        You didn't go (earlier today).

(142)   *Maa ƙod.*
        má-á   ƙó-d-ᵃ
        not-REAL   go-2SG-REAL
        Don't go.

(138)   *Moo ƙod.*
        mo-o   ƙó-dⁱ
        not-SEQ   go-2SG[IRR]
        And you don't go.

7.8   Aspectuals

The aspectual suffixes in Ik provide further details as to the non-spatial setting of a clause. In the sense that it is used here, 'aspect' covers the temporal composition of a verb but also its temporality relative to another verb, its phase of activity, degree of completion, and frequency (Dixon 2012:30-36). This broader definition of 'aspect' contrasts it with mood and modality (§7.7), voice and valency (§7.9), and markers of pure temporality (§7.11). Ik employs the following seven functors of aspectuality: sequential

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(§7.8.1), simultaneous (§7.8.2), imperfective (§7.8.3), inchoative (§7.8.4), completive (§7.8.5), present perfect (§7.8.6), and pluractional (§7.8.7).

7.8.1 Sequential

The Ik sequential aspect is marked in two concurrent ways: 1) a floating H tone (in all but the 3SG and 3PL paradigm members) and 2) a handful of suppletive suffixes making up an irregular paradigm. The floating H tone is posited because a) some sequential verbs with L-tones surface with mid instead of low pitch in isolation or before a pause and b) words following a sequential verb often get a H tone on their first syllable.

The suffix used to mark all members of the sequential paradigm except 3PL is {-kɔ}. As discussed back in §6.4.1, this morpheme is most likely a grammaticalization of the copulative case, or otherwise, both the sequential and copulative evolved from a precursor such as a focus marker. For comments on the origin of the cross-categorial morpheme {-kɔ}, the reader is referred back to §6.3.8. The 3PL sequential suffix is {-ını} or /-ini/. Also, the 1SG and 1PL.EXC subject-markers in the sequential paradigm are irregular in that they end with /a/ instead of the expected irrealis /ı,i/.

The sequential suffix {-kɔ} is [-ATR] with /-ko/ as an allomorph on [+ATR] stems. Its tone is L but may bear H tone spread from the stem. Before a pause, the suffix has the further allomorphs /-kʼ/, /-kº/, or /-kʷ/. And then in clause-medial positions, it has the reduced allomorphs /-ɔ/ or /-o/. Heine & König analyzed the sequential ('narrative' in their terminology) as composed of an optative -i and the copulative -ko (1996:77). This was presumably to account for the high-frequency sequence -ʊkʼ or -ukº. But in this grammar, the form -ʊkʼ or -ukº is analyzed as made of the underlying 3SG suffix {-ı-} followed by the sequential {-kɔ}.

The 3PL sequential suffix {-ɪnɪ} is reduced to /-ɪn/ before a pause. In terms of tone, it has a LL melody but may surface as HL after a H tone on the preceding stem or as LH before the dummy pronoun enclitic {=ˊdɛ}.

The table in (139) presents the sequential aspect paradigm for the verbs *fút-és* 'to blow' and *bɛr-és* 'to build':

(139)   *Sequential aspect paradigm*

	NF	FF	NF	FF
1SG	fút-ia-a	fút-ia-k°ˊ	bɛr-ɪa-a	bɛr-ɪa-kɔˊ
2SG	fút-ídu-o	fút-ídu-k°ˊ	bɛr-ɪdɔ-ɔ	bɛr-ɪdʊ-kɔˊ
3SG	fút-ú-o	fút-ú-k°	bɛr-ɔ-ɔ	bɛr-ʊ-kɔ
1PL.EXC	fút-íma-a	fút-íma-k°ˊ	bɛr-ɪma-a	bɛr-ɪma-kɔˊ
1PL.INC	fút-ísini-o	fút-ísinu-k°ˊ	bɛr-ɪsɪnɔ-ɔ	bɛr-ɪsɪnʊ-kɔˊ
2PL	fút-ítu-o	fút-ítu-k°ˊ	bɛr-ɪtɔ-ɔ	bɛr-ɪtʊ-kɔˊ
3PL	fút-íni	fút-ín	bɛr-ɪnɪ	bɛr-ɪn

As seen in (139), the final /ɪ/ of the subject-agreement suffixes is partially assimilated to /ʊ/ before the sequential suffix. The degree of assimilation is gradient in phonetic realization: a form like *bɛrɪdʊɔˊ* 'and you build' can just as often surface as *bɛrɪdɔɔˊ* with total assimilation of the subject-agreement suffix's final vowel. In [+ATR] stems, the assimilation gradient varies between /i/ and /u/, as in *suɓánídio* ~ *suɓáníduo* 'and you (sg.) got ready'.

Up to now, the sequential has been called the 'narrative' (Serzisko 1992, Heine & König 1993, König 2002, König 2008). It seemed an appropriate label since the verb forms in (139) are by far the predominant ones observed in narrative texts. However, given that they are also predominant in procedural, exhortative, explanatory, and just about any other type of discourse, the term 'narrative' is just not suitable. That the sequential is found in narratives is just coincidental to the fact that it is used express simple verbal sequences. The sequential aspect simply indicates that a state or event follows in sequence after one or more previous states or events.

Sequential verbs are found in both main and subordinate clauses. Main clauses with the sequential are always subordinate or 'co-subordinate' (medial or chained) to a previous controlling clause (see §10.2). Subordinate clauses with the sequential only come before the main clause and are used for hypothetical or conditional predications. The sequential aspect in main clauses is by far the most frequently occurring verb type in the whole language. It is used in narratives, instructions, explanations, descriptions, and everyday conversations. The following two sentences illustrate its narrative (140) and gnomic (141) uses:

(140) *Atsini koketini ɦyekesia bi.*

  ats-ini   kɔk-ɛ́t-ɪnɪ ɦyek-esí-á   bi-∅

  come-SEQ shut-VEN-SEQ live-INF-ACC you.SG-GEN

  And they come and shut off your livelihood.

(141) *Kïdzesoo bia kwaeo, ceiꝁotuk.*

  ꝁídz-ɛs-ɔ-ɔ   bi-a   kwaě-ˀ cɛ-ɪꝁɔ́t-ʊ-kˀ

  bite-INT-3SG-SEQ you.SG-ACC tooth-INS kill-COMP-3SG-SEQ

  And it tries to bite you with (its) tooth, and it kills (you).

And then the next two sentences illustrate the hypothetical (142) and the conditional (143) usages of the sequential in subordinate clauses:

(142) *Na ꝁanaa ɲarema birayoo, maraŋa ꝁanak.*

  na = ꝁánaa ɲárɛ́m-a   bɪra-ɪ-ɔɔ́   marán-á ꝁanak[a]

  CONJ = COND insecurity-NOM not.be-3SG-SEQ good-REAL COND

  If insecurity were not there, it would be good.

(143) *Na eniduo ntsaa, kute ntsie 'Ats'.*

  na = én-idu-o   nts-aá   kʊt-ɛ   ntsí-é ats-ᵉˊ

  CONJ = see-2SG-SEQ she-NOM say-IMP.SG she-DAT come-IMP.SG

  If you see her, tell her 'Come'.

The sequential aspect is also used for a series of polite commands, instructions, or requests. Often the controlling verb (on which the clause chain is built) is a simple imperative, but it may also be another sequential verb. In the latter case, a controlling verb is implied:

(144)　*Kae ƙaneiduo cemera egiduo ikak.*
　　　　ƙa-e　　ƙan-é-idu-o　　　cɛmɛr-a　　eg-idu-o　　iká-kᵉ
　　　　go-IMP take-VEN-2SG-SEQ herb-NOM　put-2SG-SEQ head-DAT
　　　　Go get medicine and put it on (your) head.

(145)　*Maxanidoo roɓee awooo?*
　　　　máxán-ɪdɔ-ɔ　　roɓe-e　　　awó-oó
　　　　greet-2SG-SEQ　people-DAT　home-ABL
　　　　Please great people at home, okay?

In addition to the polite imperative usage, the sequential is also used in a deontic or 'should/must' sense. The controlling verb, *ɪtámáán-* 'behoove' may or may not be present:

(146)　(*Itamaana) atsiduo taa barats.*
　　　　(ɪtámáán-á)　　ats-idu-o　　　táa　　barats-ᵒ
　　　　behoove-REAL　come-2SG-SEQ　next　morning-INS
　　　　You should come tomorrow (lit: 'It behooves, (and) you come…').

Though not reflected in (139), the sequential paradigm also has its own passive form: {-ɛsɛ́} (/-ese´/ on [+ATR] stems). The sequential passive (SPS) is impersonal like the non-sequential impersonal passive (§7.9.3); neither type involve demoting a known agent or promoting the object to subject. Any inferred agent is vague or impersonal, and they are both normally translated into English with an agent like 'people' or 'one' or are left in the passive. The sequential impersonal passive is discussed more under §7.9.4, but the next two sentences provide an intial picture of how it works:

(147)   *Epuƙwes, na baratso ƙeese daŋaaƙok.*

       ep-úƙó-es^e   ná = barats-o   ƙe-ese   dáŋá-aƙɔ-k^ɛ

       sleep-COMP-SPS CONJ = morning-INS   go-SPS   white.ant-inside-DAT

       People sleep and in the morning go for white ants.

(148)   *Itamaana ogweese ti.*

       ɪtámáán-á   ógo-ese   tí

       behoove-REAL leave-SPS   ADV

       It must be left like that.

A variety of 'narrative' or 'subsecutive' verb forms are found scattered throughout the East African region, for example: Lango and Nuer (Western Nilotic); Toposa, Turkana, Maasai (Eastern Nilotic), and So (Kuliak). As a result of the long-term contact between Ik and Teso-Turkana languages, one wonders whether the Ik sequential aspect is a grammatical replication of the Teso-Turkana 'subsecutive' mood. The two have similar functions, but the morphological resources used for them are quite different. In pursuit of this question, the following comparison may provide some clues. Data on Teso-Turkana are taken from Dimmendaal's description of Turkana (1983):

(149)   *Comparison of Ik 'sequential' with Teso-Turkana 'subsecutive'*

	Ik	Turkana
After a temporal controlling verb?	Yes	Yes
Has special agreement markers?	Partly	No
After an auxiliary verb?	Optional	Obligatory
Can cooccur with tense marking?	Optional	No
As hortative & jussive?	Optional	Obligatory
In double imperatives?	Optional	Obligatory
In simultaneous clauses	Optional	Obligatory
After a quotative complementizer?	No	Yes
Has different aspect marking?	No	Partly
Indentical to imperative?	No	Yes

7.8.2 Simultaneous

The suffix {-kɛ} marks the 'simultaneous' aspect in Ik. As discussed back in §6.4.1, the accepted analysis is that this suffix is a grammaticalization of the homophonous dative case suffix. Or otherwise, both suffixes arose from a common proto-morpheme. The reader is referred to §6.4.1 for more details. The simultaneous suffix attaches directly to the underlying forms of the subject-agreement markers. This combination resulted in the high-frequency sequence /-ɪkᵉ/ or /-ikᵉ/ that has often been interpreted as an optative *-i* together with the dative case suffix {-kɛ} (e.g. Heine & König 1996:77). In this grammar, however, the ambiguous sequence /-ɪkᵉ/ or /-ikᵉ/ is treated as a combination of the 3SG morpheme {-ɪ-} and the simultaneous {-kɛ}.

The suffix {-kɛ} is recessively [-ATR] with /-ke/ as an allomorph on [+ATR] stems. Before a pause, the suffix is reduced to /-kᵉ/ or /-kᵉ/, and in clause-medial contexts, it surfaces as /-ɛ/ or /-e/. Its tone is L, but it may receive H tone from the stem to which it attaches or from the clitic {=´dɛ}. The following table presents the simultaneous paradigm for the verbs *fút-és* 'to blow' and *bɛr-és* 'to build'. Note that the pre-pause allomorph of the suffix is retained for the non-final 1sg form. This is apparently to prevent a three-vowel sequence spanning two morphemes:

(150)   *Simultaneous aspect paradigm*

	NF	FF	NF	FF
1SG	fút-íi-ke	fút-íi-kᵉ	bɛr-íí-kɛ	bɛr-íí-kᵉ
2SG	fút-ídi-e	fút-ídi-kᵉ	bɛr-ídɪ-ɛ	bɛr-ídɪ-kᵉ
3SG	fút-í-e	fút-í-kᵉ	bɛr-ɪ-ɛ	bɛr-ɪ-kᵉ
1PL.EXC	fút-ími-e	fút-ími-kᵉ	bɛr-ímí-ɛ	bɛr-ímí-kᵉ
1PL.INC	fút-ísini-e	fút-ísini-kᵉ	bɛr-ísínɪ-ɛ	bɛr-ísínɪ-kᵉ
2PL	fút-íti-e	fút-íti-kᵉ	bɛr-ítí-ɛ	bɛr-ítí-kᵉ
3PL	fút-áti-e	fút-áti-kᵉ	bɛr-áti-e	bɛr-áti-kᵉ

The verbal suffix {-kɛ} has been called the 'subjunctive' up to now (e.g. Heine & König 1996, König 2002). But the term 'simultaneous' is preferred because a) it pairs with 'sequential' which, by one typology, is the other aspect found in clause chains (Kroger 2004:243), and b) it more clearly communicates what the suffixes actually does: indicate that a state or event temporally coincides with or accompanies another state or event.

Clauses with simultaneous verbs are always subordinate and may come before or after the main clause. If one comes before the main clause, it is often introduced by the conjunction *na* (past) or *náa* (hypothetical or future). Example (151) shows the simultaneous suffix on the verb *iryámétaní-ɛ́* 'when gotten' in a subordinate clause before the main clause. The subordinate clause is introduced by *náa*, while the preposed subordinate clause in (152) illustrates the simultaneous in use without a subordinating conjunction. Lastly, in (153) the subordinate clause with the simultaneous verb *wati-kᵉ* 'raining' comes after the main clause it modifies:

(151) *Naa iryametanie gwasak, ŋweese ɲaɓalaŋit.*

náa	iryám-ét-aní-ɛ	gwasá-kᵉ	ŋʋ-ɛsɛ	ɲaɓáláŋɪt-ᵃ
CONJ	get-VEN-IPS-SIML	stone-DAT	grind-SPS	soda.ash-NOM

When a stone is gotten, soda ash is ground.

(152) *Koŋesia ŋabuƙotie kutini 'ƙae'.*

kɔŋ-ɛsí-a	ŋáb-ʋƙɔtɪ-ɛ	kʋt-ɪnɪ	ƙa-eʼ
cook-INF-ACC	end-COMP-3SG-SIML	say-SEQ	go-IMP.SG

When cooking was done, they said 'Go!'.

(153) *Mita noo kiɟa odow, didia watik.*

mɪt-a＝noo	kíɟ-á	ódoᵘ	didi-a	wat-i-kᵉ
be-REAL＝PST3	land-NOM	day[OBL]	weather-ACC	rain-3SG-SIML

It was daytime, (and) raining.

Although the simultaenous aspect is in principle found only in subordinate clauses, simultaneous clauses can also be used as pragmatically independent in everyday conversation. This usage is grammatical only if the matrix clause for the stand-alone subordinate clause is implied by the discourse context. And this is true whether the matrix clause was actually spoken or is just part of the cognitive environment shared by the speech-act participants. This use of the simultaneous is often heard in friendly bantering in response to comments or questions, for example:

(154) *Biraa cemerik.*   *Iyatie!*

     bɪra-a   cɛmɛ́r-ík-ᵃ   →   i-áti-e

     lack-REAL   herb-PL-NOM   be-3PL-SIML

     There aren't any drugs.   They're there!

(155) *Maa ƙoti?*   *Sarimie!*

     má-á   ƙó-ti   →   sár-ími-e

     not-REAL   go-2PL[IRR]   still-1PL.EXC-SIML

     Haven't you gone (yet)?   We still haven't!

In both (154) and (155), the two independent clauses on the lefthand side can be seen as the matrix clauses for the two simultaneous clauses on the right, even though the speakers are different.

Lastly, when paired with the interrogative pronoun *nˈdɛ́ɛ́* 'from where', the simultaneous aspect can be used elliptically to form a negative statement:

(156) *Otsiike ndee?*

     ots-íí-ke   nˈdɛ́ɛ́

     climb-1SG-SIML from.where

     I'm not climbing (lit. 'I climbing from where?).

7.8.3 Imperfective

The same form—{-ɛ́s-}—encodes both intentional modality and an imperfective aspect. Phonological and morphophonological details of this suffix are discussed back in §7.7.3. Although they are related semantically and probably historically, the two uses are viewed here as too far apart to be treated as two functions of the same suffix. The Ik imperfective marked by {-ɛ́s-} is contrasted with the perfect aspect which is the default and unmarked aspect. In other words, without {-ɛ́s-} the meaning of many verbs does not have the internal temporal composition of the activity or state in view (though some verbs are lexically imperfective, such as *tsuwa-* 'run'). This does not mean that the activity or state has no temporal duration, only that any temporal duration is not grammatically encoded. By contrast, the imperfective aspect highlights the ongoing and unfinished nature of the predicated situation. On this score, compare the following examples:

(157)   *Kayuo awak.*

      ƙa-i-o   awá-kᵉ

      go-3SG-SEQ home-DAT

      And he goes/went home.

(158)   *Keesuo awak.*

      ƙe-es-ú-o   awá-kᵉ

      go-IPFV-3SG-SEQ home-DAT

      And he was/kept going home.

(157)-(158) illustrate the straightforward use of the imperfective, adding a nuance of duration to the sense of a verb. But the imperfective can also function in a way similar to the simultaneous, by modifying a sequential clause with a sense of temporal duration. The sequential aspect is inherently tenseless and perfective in aspect, so the imperfective prolongs a temporal situation long enough for it to be simultaneous or accompanying. Consider, for example, the imperfective verbs in the following sentences:

(159) *Atsiata noo dzigwaa lotoɓae,*

ats-í-át-a=noo   dzígw-aa   lɔ́tɔ́ɓa-ᵋ

come-PLUR-3PL-REAL=PST3   buying-ACC tobacco-GEN

They used to come to buy tobacco,

iyesini tumede.

i-és-íni   tʊmɛˡdɛ́-ɛ́

be-IPFV-SEQ   there-DAT

(and) they were (continuously) there.

(160) *Mitesoo Loyoro.*

mɪt-ɛ́s-ɔ́-ɔ   loyóro

be-IPFV-3SG-SEQ Loyoro[OBL]

It was Loyoro (i.e. as a continual state of affairs).

ntsú-ó=noo   mit-i-a   kíʝá   ɲʝíní-∅

it-COP=PST3   be-PLUR-REAL   land[OBL]   we.INC-GEN

It is what used to be our homeland.

(161) *Saresuo Pakoika*

sár-és-u-o   pakó-ík-a

still-IPFV-3SG-SEQ   cave-AGT.PL-NOM

And the Turkana were still (being good),

ɗemusu gaanaakotat nda roɓ.

ɗɛmʊsʊ gaan-áá-ƙot-átⁱ   ńda   roɓᵃ

until   bad-DISTR-COMP-3PL[SUBJ]   with   people[OBL]

until they became bad (i.e. hostile) with people.

(162) *Cemesoo didia wat.*

cɛm-ɛ́s-ɔ́-ɔ   didi-a   wat-ᵓ

fight-IPFV-3SG-SEQ   weather-NOM   raining-INS

And it was (continuously) raining.

Note that in (159) and (160) the pluractional aspect is used alongside the imperfectivized sequentials, giving the complex sentences further nuances of protracted activities or states. In (161), though the pluractional aspect is absent, the veb *sár-* 'still' is present instead; this auxiliary verb is inherently lexically imperfective in aspect (see §9.2.1 for more details). And then in (162), the imperfective adds a degree of temporal composition to the inherently imperfective 'occupative' auxiliary verb *cɛm-* (§9.2.3).

Some actions are seen as so inherently imperfective that the verbs expressing them can only occur with the imperfective suffix {-és-}. Among these are *ɓɛk-és* 'walk', *dzú-és* 'steal', and *gón-és* 'be awake'. Yet other verbs are only typically (but not obligatorily) found in the imperfective. These include verbs like *itiŋ-és* 'cook (in general)' and *kɔ́ŋ-és* 'cook by stirring'.

7.8.5 Inchoative

The same morpheme—{-ét-}—encodes both the venitive directionality and inchoative aspect. The etymological and allomorphic details of this suffix are covered above in §7.4.2 and so are not repeated here.

The directionals described in §7.4.1 and §7.4.2 have been grammaticalized into use as aspectuals (assuming the grammaticalization did not happen in the other direction). For the venitive, the notion of directionality toward an egocentric point of reference was extended over time to mean the starting up of an action or state. A similar aspectual sense is called the 'prospective' in Turkana (Dimmendaal 1983:112). In that language, both venitive and andative (or itive) are used in a 'dynamic inchoative sense'; the choice of venitive or andative for aspectual meaning depends on root structure (Dimmendaal 1983:168). In Ik, root structure has nothing to do with it. Instead, the venitive-as-inchoative denotes the beginning of a state or action, while the andative-as-completive denotes the end of it. The following two sentences introduce the inchoative {-ét-}'s basic function:

(163) *Buɗama kiɟ.*

buɗám-á   kíɟ-ᵃ

dark-REAL   land-NOM

The land is dark (i.e. 'It's dark outside').

(164) *Buɗametaa kiɟ.*

buɗam-et-á-á   kíɟ-ᵃ

dark-INCH-REAL-PRF land-NOM

The land has started getting dark (i.e. 'It's now getting dark').

Some uses of the suffix {-ét-} are clearly directional (venitive), as in *me-et-és* 'to give (this way)' and *ɪlé-ét-ɔn* 'to travel (this way)'. And others are clearly aspectual (inchoative), as in *bɔr-ét-ɔ́n* 'to get tired' and *kɔ-ɛt-és* 'to await'. But for many other verbs with this suffix, it is not entirely clear whether they carry a mainly directional or aspectual meaning. Consider the following verbs in their nominalized infinitive forms:

(165) *Ambiguous instances of {-ét-}*

an-ɛt-és	'to remember'
ɦyɛn-ét-ɔ́n	'to vomit'
ɪɗɪm-ɛt-és	'to make'
ɪwír-ét-ɔn	'to shine'
ŋaʃ-ét-ɔ́n	'to be startled'
ŋʊr-ɛt-és	'to judge'
ʃɔ́b-ɛt-és	'to choose'
tsam-ét-ɔ́n	'to agree'
zɛƙw-ét-ɔ́n	'to sit down'
zɪk-ɛt-és	'to tie up'

For some such examples, a directional meaning can be imagined, like for *ɦyɛn-ét-ɔ́n* 'to vomit' and *ʃɔ́b-ɛt-és* 'to choose', though it is not obvious how they can be construed as 'motion toward speaker'. Perhaps the usage here is aspectual, 'to vomit' being viewed as 'to enter a process of vomitting' and 'to

choose' as 'to enter a state of preference'. So, though there are prototypical cases of directional and aspectual uses of {-ɛ́t-}, the boundary between the two semantic categories seems to be rather fuzzy (at least to a non-Ik).

As both a directional and aspectual suffix, {-ɛ́t-} provides one way for the language to enrich its verbal semantics. Often the inchoative suffix is optional and may be added to elaborate the meaning of the verb stem:

(166) *Inchoative use of {-ɛ́t-}*

aĕ-on	'to be lit'	→	aĕ-ét-ón	'to catch fire'
bɛ́ɗ-ɛ́s	'to want'	→	bɛɗ-ɛt-ɛ́s	'to look for'
bɔ́r-ɔ́n	'to be tired'	→	bɔr-ét-ɔ́n	'to get tired'
cɛm-ɔn	'to fight'	→	cɛm-ét-ɔ́n	'to begin fighting'
hoɗ-és	'to free'	→	hoɗ-et-és	'to set free'

For a few verbs with the inchoative suffix, a corresponding shorter form without the suffix is not found. Most of these were borrowed for Teso-Turkana where they also have the venitive/inchoative suffix *-un*, e.g.:

(167) *Invariably inchoative verbs*

iryám-ét-on	'to get'	(Teso-Turkana *a-ryam-un*)
itúm-ét-on	'to spend time with'	(Teso-Turkana *aki-tum-un*)

Although not obligatory, the inchoative suffix is often used with transitive or intransitive verbs that have been causativized:

(168) *Inchoative causative verbs*

bɪt-ɪt-ɛt-ɛ́s	'to multiply'
dim-it-et-és	'to forbid'
en-it-et-és	'to clarify'
fek-it-et-és	'to amuse'
idĩk-it-et-és	'to solidify'

For causative verbs like these, it cannot be gathered from English translations what semantic nuance the inchoative aspect adds to the verb. So based on other clearer uses, it is assumed that the added nuance is one of the beginning of the action. As such, a verb like *fek-it-et-és* 'to amuse' (lit. 'to make laugh') may be more colloquially glossed as 'to get someone laughing' or even more colorfully 'to crack someone up'.

The following sentences illustrate the inchoative in discourse context:

(169)   *Na koto tezetie ƙayuo koto amed.*

      na = kótó   téz-ɛt-ɪ-ɛ   ƙa-i-o = koto   ám-ɛ́d-ᵃ

      CONJ = then end-INCH-3SG-SIML go-3SG-SEQ = then person-OSS.SG-NOM

      So when it ended, the owner then went.

(170)   *Gametuo roɓa dii cikamak.*

      gam-ét-u-o   roɓ-a = ꜝdíí   cɪkámá-kᵉ

      kindle-INCH-3SG-SEQ people-NOM = ANPH.PL   women-DAT

      And those people started up a fire for the women.

Ik words for animal colors and the shapes of animal horns (both important aspects in pastoralist culture, of which the Ik used to be part) have the form of intransitive adjectival verbs. In many instances, these terms contain the suffix {-ét-}, though neither a venitive nor an inchoative interpretation makes much sense of it. Take the following, for example:

(171)   *The suffix {-ét-} in animal color/horn shape verbs*

Colors	ɓokó-án-et-on	'to be purple'
	kɪpúr-án-et-on	'to be red-brown'
Horn shapes	ilúk-án-et-on	'to be pointed downward'
	top-ét-ón	'to slant outward'

Perhaps the inchoative aspect is used with these terms to communicate that the color or horn shape is an incipient (and then ongoing) state.

7.8.6 Completive

The same morpheme—{-ʊƙɔtí-}—encodes both the andative directionality and the completive aspect. The etymological and allomorphic details of this suffix are covered above in §7.4.1 and so are not repeated here.

Just as the inchoative is the aspectual extension of venitive directionality, so the completive is the aspectual extension of andative directionality. As a marker of completive aspect, {-ʊƙɔtí-} signifies that an activity or state is complete. This is a semantic extension of the directional andative that refers to a motion away from a deictic center (usually the speaker). A near-equivalent to completive aspect is the Turkana 'retrospective' aspect, also conveyed by the same suffix as the itive/andative (Dimmendaal 1983:112).

The next two examples illustrate the completive aspect marked by {-ʊƙɔtí-}:

(172)   *Buɗama ƙwaz.*
      buɗám-á   ƙwaz-∅
      dark-REAL   clothing-NOM
      The piece of clothing is dirty.

(173)   *Buɗamuƙotaa ƙwaz.*
      buɗam-uƙot-á-á   ƙwaz-∅
      dark-COMP-REAL-PRF   clothing-NOM
      The piece of clothing has become dirty.

Compared to the venitive-inchoative pair, it is generally easier to distinguish the directional use of {-ʊƙɔtí-} from the aspectual use. However, this is not always the case, for example with a verb like *ŋáɲ-és-uƙot*[a] 'to open up'. Does the suffix {-ʊƙɔtí-} give the verb a directional nuance ('Open up away from me!') or an aspectual nuance ('Open up it right up!')?

Like the inchoative, the completive aspect enriches Ik verbal semantics in ways similar to the English phrasal particles like 'up', 'out', and 'off', as in 'break up', 'break out', and 'break off'. And with stative verbs like *gaan-ón* 'to be bad', the completive aspect has the additional sense of process or becoming, as in *gaan-ón-uƙotᵃ* 'to become bad' (Heine & König 1996:96):

(174) *Aspectual usage of {-ʊƙɔtí-}*

aě-on	'to be ripe'	→	aě-on-uƙotᵃˊ	'to ripen (up)'
bad-on	'to be dead'	→	bad-on-uƙotᵃˊ	'to die (off)'
ep-on	'to sleep'	→	ep-on-uƙotᵃˊ	'to fall asleep'
kɔk-ɛ́s	'to shut'	→	kɔk-ɛ́s-úƙɔtᵃˊ	'to shut (out)'
ŋííɗ-ɛ́s	'to rub'	→	ŋííɗ-ɛ́s-úƙɔtᵃˊ	'to rub (off)'

Also like the inchoative, the completive suffix is often found on causativized transitive and intransitive verbs like the following:

(175) *Completive causative verbs*

ɓúƙ-ít-és-uƙotᵃˊ	'to stick sth. in'
ɗɔƙ-ít-ɛ́s-ʊƙɔtᵃˊ	'to make sth. wet'
ep-ít-és-uƙotᵃˊ	'to put down to sleep'
ts'íts'-ít-ɛ́s-ʊƙɔtᵃˊ	'to sharpen up'

The following sentences illustrate the completive in discourse context:

(176) *Isiamoo kawuƙota rijaa nci?*

isi-amo-o	kaw-uƙot-a	ríjá-a	ɲci-∅
what-person-COP	cut-COMP-REAL	forest-ACC	I-GEN

What kind of person cuts down my forest?

(177) *Naa ts'agusuƙotatik, tuduƙotin.*

náa	ts'agus-uƙot-áti-kᵉ	tud-uƙót-in
CONJ	four-COMP-3PL-SIML	five-COMP-SEQ

When they get to be four, then they'll get to be five.

7.8.7 Present perfect

The suffix {-ˊka} marks present perfect aspect in Ik. This morpheme has parallels in both Southern Nilotic (Nilo-Saharan) and South Omotic (Afroasiatic): Kalenjin has a 'perfectivizer' prefix *ka-* (Hall et. al 1974:247), while in Dime, the perfective marker is *-ˊka* (Mulugeta 2008:134). Given its preceding floating H tone and suffixing nature, the Dime morpheme is the most promising link, though the directionality of influence is undetermined.

The tone of the present perfect {-ˊka} is L, but it may take a H tone imposed by the preceding stem or the dummy pronoun {=ˊdɛ}. Its own floating H is posited on the basis of the tone changes it causes on preceding syllables. It is one of the language's opaque dominant [+ATR] morphemes: It spreads harmony to the right but not to the left due to the presence of /a/. Before a pause, {-ˊka} has the allomorph /-ˊkᵃ/, and in clause-medial positions, /-ˊa/.

The Ik present perfect has both temporal and aspectual values. But since it is not really a tense in and of itself, it is treated here as primarily an aspect but with a tense component. Specifically, it signifies that an action or state is complete (aspect) with ongoing relevance in the present (tense), e.g.:

(178)   *Atsaa ɲomotoka!*
      ats-á-á   ɲómotoká-∅
      come-REAL-PRF   vehicle-NOM
      A vehicle has come! (a phrase Ik children often call in excitement)

(179)   *Komaa ɟa.*
      ƙó-m-á-a=ɟa
      go-1PL.EXC-REAL-PRF=ADV
      We're gone then (i.e. 'We're leaving now').

(180)   *J'alanuⱪoidak.*
        ɟalan-uⱪó-íd-a-kᵃ
        different-COMP-2SG-REAL-PRF
        You've become different.

(181)   *Dubak! Dubak! Dubak!*
        dúb-a-kᵃ   dúb-a-kᵃ   dúb-a-kᵃ
        grab-REAL-PRF   grab-REAL-PRF   grab-REAL-PRF
        It has grabbed! It has grabbed! It has grabbed! (Yelled out when an
        Augur buzzard was swooping down toward some chickens.)

The present perfect aspect interacts with the realis modality and the semantics of motion verbs in interesting ways. For example, when one wants to part company with someone, it is proper to say *ⱪóíakᵃ* 'I have gone' rather than *ⱪeésí* 'I will (intend to) go' even if you have not yet started leaving. According to how it is expressed in the grammar, once you have decided to go, you have more or less already gone, hence the present perfect. So perhaps a better translation of *ⱪóíakᵃ* would be 'I'm on my way' or much more colloquially 'I'm outta here!'. And to take another example, if you call someone in another location to tell them you are leaving to come, you would say *atsíakᵃ* 'I have come' rather than *atsésí* 'I will come'. This implies that coming and going are seen from the point of view of beginning rather than ending as they are in English (where 'I have come' means that the coming is complete; you have arrived at your destination.)

7.8.8 Pluractional

The suffix {-í-} marks the pluractional aspect in Ik. A likely areal parallel comes from Northern Turkana, where the 'habitual' suffix *-een/-aan* has the dominantly [+ATR] allomorph *-yeen* (Dimmendaal 1983:107). The Ik pluractional {-í-} is also dominant, harmonizing the stem as far as possible in both directions. Its tone is H, but it can take a L tone in the tonal environment of stem, especially as a result of high-tone suppresion (T6).

The Ik pluractional aspect is an expression of grammatical number in the verbal system. Broadly speaking, it signals that the meaning of a given verb *applies more than once*. This could be because the subject is plural, the object is plural, or simply that the action or state occurs more than once. Such grammatical plurality has various finer nuances that have elsewhere been called 'distributive, 'habitual', 'iterative, 'frequentative', etc.—the term 'pluractional' is therefore intended to cover all of them.

The Ik pluractional is versatile in that it can take singular or plural subjects and/or objects. This means that it does not conform to the prototypical African pluractional verb described by Dimmendaal as those that "express the involvement of a plural (as against as singular) subject in the case of intransitive verbs and repetition of some action as applied to plural objects (as against a singular object) in the case of transitive verbs..." (2010:10).

The following first examples of the pluractional show how it spreads [+ATR] harmony to the preceding root:

(182) ƙɔɗ- 'cry' → *Koɗiya ɟiik.*
                                 ƙoɗ-í-á ɟíik[i]
                                 cry-PLUR-REAL always
                                 She's always crying.

(183) ınɔ́m- 'beat' → *Inomiyata ncik.*
                                 inom-í-át-a ɲci-k[a]
                                 beat-PLUR-3PL-REAL I-ACC
                                 They usually beat me.

Then the following sentences are given to illustrate each of the different nuances of the pluractional {-í-} is capable of expressing:

(184) *Dayaakit.*

da-i-aak-ít-ᵃ   DISTRIBUTIVE

nice-PLUR-DISTR-2PL-REAL

You all are lovely.

(185) *Wetiyida lotoɓa?*

wet-í-íd-a   lɔ́tɔ́ɓ-a   HABITUAL

drink-PLUR-2SG-REAL   tobacco-NOM

Do you snuff tobacco?

(186) *Deyeetu!*

de-í-et-ú   REPETITIVE

bring-PLUR-VEN-IMP.PL

Be bringing (repeatedly)!

Some uses of the pluractional suffix are fairly clear-cut semantically, like the ones shown above. However, in many situations, the interpretation of the sufffix's meaning relies on the pragmatic context. Take this example:

(187) *Na ƙanaa ɲarema birayoo,*

na = ƙánaa   ɲárɛ́m-a   bɪra-í-ɔ́ɔ

CONJ = COND   insecurity-NOM lack-3SG-SEQ

ƙaiisina ƙanak.

ƙa-í-ísin-a   ƙanakᵃ

go-PLUR-1PL.INC-REAL   COND

The sentence in (187) could be given any of the following three interpretations depending on the context in which it was spoken:

   a) If insecurity were not there, each one of us would go.
   b) If insecurity were not there, we would go more than once.
   c) If insecurity were not there, we would go often.

7.9 Voice and valency-changers

Ik has a three-way grammatical voice contrast: {active/middle/passive}. The unmarked active voice covers transitive clauses with A and O, as well as intransitive clauses with S. The middle voice covers intransitive clauses that are derived from transitive clauses but fall semantically somewhere between a reflexive and a passive. The passive voice covers all other intransitive clauses with S derived from transitive clauses. Unlike So and Turkana, Ik has no applicative. This function is handled by the dative case in Ik (König 2008:86). The Ik voice contrast differs from Turkana for which is claimed an {active/middle/impersonal-active} contrast (Dimmendaal 1983:97).

In the Ik passive voice, the original O of the transitive clause is promoted to S, and the A is absent (all Ik passives are syntactically agent-less). Ik has three types of passive: the 'true' passive (§7.9.2), the impersonal passive (§7.9.3), and the sequential impersonal passive (§7.9.4). All three types of passive are also occur with intransitive verbs, and the PASS suffix is even found marking the A of a transitive clause. In this latter non-canonical usage, the passive simply emphasizes a characteristic of the subject.

The only valency-increasing suffix in Ik is the causative (§7.9.1). It increases valency by introducing the causer as the agent, demoting the original A to O and the original O to E (or O_2). Applied to an extended transitive clause, the causative creates two peripheral arguments (in the dative case). Valency-decreasing operations include the passives (§7.9.2-§7.9.4), the middle (§7.9.4), and the reciprocal (§7.9.6). All three convert transitive or extended transitive clauses to intransitive ones by either eliminating A (passive and middle) or combining A with O (reciprocal).

The six voice-marking or valency-changing suffixes are presented in (188):

(188) *Ik voice-marking or valency-changing suffixes*

{-ɪt-}	CAUS	Causative	§7.9.1
{-ɔ́sɪ́-}	PASS	Passive	§7.9.2
{-anɪ́-}	IPS	Impersonal passive	§7.9.3
{-ɛsɛ́}	SPS	Sequential impersonal passive	§7.9.4
{-V́m-}	MID	Middle	§7.9.5
{-ínɔ́sɪ́-}	RECIP	Reciprocal	§7.9.6

7.9.1 Causative

The suffix {-ɪt-} is Ik's morphological marker of causality. It is apparently related to the Teso-Turkana causative *-itV*, which can be traced back to the proto-Teso-Turkana verb root **-ito* 'send' (Dimmendaal 1983:196). The Ik causative is a recessive suffix with the allomorph /-it-/ on [+ATR] stems. Its tone is L, but H tone may spread to it if imposed by the preceding stem (T7). After high back vowels, the vowel in {-ɪt-} may be assimilated for backness, as in *itúr-út-és* 'to praise (cause to be proud)'.

The syntax and grammatical relations of causative clauses are described ahead in §9.2 and so are not dealt with here in detail. But in short, the causative is a valency-increasing morpheme, introducing an agent to intransitive clauses or a second agent into transitive clauses. As such, it can be added to intransitive, transitive, or ditransitive base verbs like those in (189). These data also show that the causative is often further extended by the aspectual completive {-ʊƙɔtí-} and inchoative {-ɛ́t-} suffixes:

(189) *Derived causative verbs*

Intransitive			
cɪ-ɔn	'to be satiated'	cɪ-ɪt-ɛ́s-ʊƙɔt[a´]	'to satiate'
do-on	'to be nice'	da-it-es´	'to make nice'
ep-on	'to sleep'	ep-ít-és-uƙot[a´]	'to lay down'
fek-on	'to laugh'	fek-it-et-és	'to make laugh'
tsó-ón	'to be dry'	tsá-ít-és	'to dry'

Transitive			
dim-es	'to reject'	dim-it-és	'to make reject'
naƙw-ɛ́s	'to suckle'	naƙw-ɪt-ɛt-és	'to make suckle'
ŋáb-es	'to wear'	ŋáb-it-et-és	'to dress'
tam-ɛs´	'to think'	tam-ɪt-ɛt-és	'to remind'
tɔkɔ́b-ɛs´	'to farm'	tɔkɔ́b-ɪt-ɛt-és	'to make farm'
Ditransitive			
maƙ-és-úƙot	'to give'	maƙ-it-és-uƙotª´	'to make give'

Besides the morphological causative {-ɪt-}, Ik also has periphrastic causatives. These involve specific lexical verbs and constructions whose semantic range is much narrower than the causative suffix. One of the periphrastic causatives consists of the verb *ɪtɪ́ŋ-* 'force' in a clause where the causer is the transitive subject (A) and the causee the object (O). Since this lexical causative means 'force s.b. to do sth.', the verbal complement follows the object in the form of a nominalized verb in the dative case, as in:

(190) *Itiŋida nka ƙoonik.*

ɪtɪ́ŋ-íd-a   ŋk-a   ƙo-oni-kᵉ

force-2SG-REAL   I-NOM   go-INF-DAT

You force me to go.

Semantically, the periphrastic causative in (190) communicates directness and intention on the part of the causer, and lack of control or volition on the part of the causee. The causer must also be animate (Dixon 2013:269).

The second type of periphrastic causative consists of the verb *bɛ́ɗ-* 'want' plus a complemental subordinate clause. The causer is the transitive subject (A) in this construction. The causee is both the object of the matrix clause and the subject of the subordinate clause whose verb is a simultaneous one:

(191)　*Beɗa ncia ƙoiik.*

  béɗ-á j́ci-a ƙo-íí-kᵉ

  want-REAL I-ACC go-1SG-SIML

  He wants me to go.

The semantics of this periphrastic causative are quite different than the one in (190). In this one, an animate causer is intending or hoping for an outcome, but the causee has considerably more control over it. He or she can decide whether or not to comply with the wishes of the causer.

Finally, the Ik lexicon contains a few verbs that are known lexicalizations of morphological causatives in Teso-Turkana. As lexicalizations, though, they are used in Ik as normal verbs, not as causatives *per se*. The table in (192) presents the known representations and any non-Teso-Turkana equivalents:

(192)　*Lexicalized Teso-Turkana causatives in Ik*

(isí)kwáán-	'compare'	ƙám-ít-	'make to be like'
(isí)sá-	'practice'		
(isí)tíya-	'use'	erég-	'use, employ'
(ɪtá)máán-	'behoove'		
(ɪtá)tám-	'teach'		

7.9.2 Passive

It has been claimed that Ik has no productive passive, that even the suffix {-ɔ́sɪ́-} (called 'passive' in this grammar) is just an 'intransitivizer' since no agent can be expressed (Serzisko 1989:400). If by definition an agentless passive is no passive at all, then the above claim is true for Ik. But in other typologies, one can speak of canonical and non-canonical passives. For example, in Dixon's typology (2012:206), cross-linguistically canonical passive constructions have all the properties presented in (193). Note how the three Ik passives check out in reference to these properties:

(193) *Ik passives compared to the cross-linguistically canonical passive*

	Canonical passive	Ik passive(s)?
1	It applies to an underlying transitive clause and forms a derived instransitive.	All three
2	The underlying O becomes the S of the passive.	Only one fully; the other two in main clauses only
3	The underlying A goes into a peripheral function, being marked by a non-core case…; this argument can be omitted, although there is always the option of including it.	None; the Agent cannot be included.
4	There is some explicit (that is, non-zero) formal marking of a passive construction…	All three

So, when examined in light of (193), the Ik passives check out as canonical in some regards and non-canonical in others. On point 2 from (193), only the passive {-ɔsí-} derives an S from an underlying O. The other 'impersonal passives' derive an S-like argument in main clauses (marked in the NOM case), but in subordinate clauses this argument is still encoded as the O. On point 3, despite prior claims (e.g. Heine & König 1996:33), all of the Ik passives are strictly agentless—there is no option of including an agent syntactically, although an agent may be implied. These properties of Ik passives are demonstrated in each relevant section below.

The suffix {-ɔsí-} is analyzed in this grammar as a morphological passive. A potential etymological parallel for it is the Surmic language Didinga's passive suffix *-ooðɪk* (De Jong 2004:150). It also does not seem coincidental that {-ɔsí-} closely resembles {-ésí-}, the Ik transitive nominalizer. Indeed, {-ɔsí-} is the only Ik passive morpheme that can also nominalize a verb.

The passive {-ɔ́sí-} is recessively [-ATR] but has /-ósí-/ as an allomorph on [+ATR] stems. It has a H(H) tone melody but may undergo tonal changes depending on the tonal environment. For example, after a depressor consonant, its tone is L(L), as in *tắb-osi-* 'to be touched. The passive suffix is the last derivational morpheme on a stem but may be followed by one or more inflectional suffixes, as in *iw-ót-ós-át-ᵃ* 'They are locked'.

In its usual function as a detransitivizer, the passive (PASS) passivizes a transitive verb by deriving a stative intransitive verb from it. Examples of this include those in (194). The parentheses are meant to account for the fact that the passive can also nominalize a stem into of passive infinitive:

(194)   *Derived passive verbs*

Active			Passive	
búd-esi-	'to hide'	→	búd-osi-	'(to be) hidden'
ɗɔts-ɛ́sí-	'to join'	→	ɗɔts-ɔ́sí-	'(to be) joined'
ɪlam-ɛsí-	'to curse'	→	ɪlam-ɔsí-	'(to be) cursed'
ŋáɲ-ɛ́sɪ-	'to open'	→	ŋáɲ-ɔ́sɪ-	'(to be) opened'
tsáŋ-ési-	'to annoint'	→	tsáŋ-ósi-	'(to be) annointed'

The passive suffix is found with both unaccusative verbs like *kɔk-* 'close' and highly transitive verbs like *ŋk-* 'eat':

(195)   *Kokosa asak.*
        kɔk-ɔ́s-á   asak-ᵃ
        close-PASS-REAL door-NOM
        The door is closed.

(196)   *Nkosa toboŋ.*
        ŋk-ɔ́s-á   tɔbɔŋ-∅
        eat-PASS-REAL   posho-NOM
        The posho is eaten.

The grammatical relations involved with the Ik passive differ from those in Teso-Turkana. For example, in Toposa, bordering Ik to the north, the normal nominative-accusative marking system changes to ergative-absolutive in the passive: The subject of an intransitive passive sentence is encoded with the accusative case rather than the nominative (Schröder 2008:59). While a similar situation obtains for the Ik impersonal passives, for the passive marked by {-ɔ́sí-}, the sole verbal argument is treated syntactically as S, not O. This is shown by the syntax of subordinate clauses, as explained next.

In most types of Ik subordinate clauses, any overt subject comes before the verb in the ACC case, and any overt direct object follows the verb, also in the ACC case. (197) shows the passive clause in (195) as a complement to the verbless copulative clause *isio* 'It is what... (i.e. 'why?')'. In the subordinate complement clause, the word *asak* 'door' is put before the verb, indicating that it is viewed as the syntactic subject (S) of (197). If *asak* is put after the verb, as if it were an object, the result is ungrammatical (198). The same process is seen taking place between (196) and (199)-(200) as in:

(197)   *Isio asakaa kokosad?*

        isi-o   ásaka-a   kɔk-ɔ́s-á = dᵉ

        what-COP   door-ACC   close-PASS-REAL = DP

        Why is the door closed?

(198)   ***Isio kokosee asakak?*

        **isi-o   kɔk-ɔ́s-ɛ́ = ɛ   asaka-kᵃ

        **what-COP close-PASS-REAL = DP door-ACC

        **Why is the door closed?

(199)   *Isio toboŋoa nkosad?*

        isi-o   tɔbɔŋɔ́-á   ŋk-ɔ́s-á = dᵉ

        what-COP   posho-ACC   eat-PASS-REAL = DP

        Why is the posho eaten?

(200) ****Isio nkosee toboŋok?*

    **isi-o   ŋk-ɔ́s-ɛ́=ɛ   tɔbɔŋɔ́-kᵃ

    **what-COP eat-PASS-REAL=DP   posho-ACC

    **Why is the posho eaten?

Unexpectedly, the suffix {-ɔ́sí-} is also found on transitive verbs still acting in transitive clauses. That is, the passive does not have a solely detransitivizing function. In its non-detransitivizing function, the Ik passive adds the stative nuance 'habitually characterized by X' to the meaning of verb X. In the next few sentences, the passive suffix is used even though the clauses remain transitive with an A and O (though O may be dropped):

(201) *Tubiida nka ɟiik.*

    túb-i-íd_A-a   ŋk-a_O   ɟíikⁱ

    follow-PLUR-2SG-REAL   I-NOM   always

    You always follow me.

(202) *Tubosiida nka ɟiik.*

    túb-os-i-íd_A-a   ŋk-a_O   ɟíikⁱ

    follow-PASS-PLUR-2SG-REAL   I-NOM   always

    You always make a point of following me.

(203) *Beɗetia naa bia baratso nak.*

    béɗ-ɛ́t-í-a=naa   bi-a   barats-o=nákᵃ

    want-VEN-1SG-REAL=PST1   you.SG-NOM   morning-INS=DEM.SG.PST1

    I looked for you this morning.

(204) *Beɗetosia bia napei nak.*

    béɗ-ɛ́t-ɔ́s-í-a   bi-a   napei=nákᵃ

    want-VEN-PASS-1SG-REAL   you.SG-NOM   since=PST1

    I've been all about looking for you since earlier.

The sentences in (201) and (203) are normal, simple transitive clauses with A and O. These then are modified by the passive suffix {-ɔ́sí-} in (202) and (204) without causing a decrease in clausal valence. In this sense, {-ɔ́sí-} can apparently be used in a non-passivizing way to draw attention to how a transitive situation characterizes the subject as well as affecting the object.

The story does not end there: The suffix {-ɔ́sí-} is also found on intransitive verbs like the ones in (205). When occuring with intransitive verbs, the {-ɔ́sí-} is obviously not behaving as a canonical passive, since there is no change in transitivity. Instead, it basically turns a merely intransitive verb into a stative one. In this function, the verb root is usually reduplicated to express the stative notions of habitual or repetitive characteristicness:

(205)   *Stative passives derived from intransitives*

Intransitive			Stative	
ɓɛ́ƙ-ɛ́s	'to walk'	→	ɓɛ́ƙ-ɛs-ɔs´	'(to be) 'walkative''
bot-on	'to migrate'	→	botibot-os´	'(to be) migratory'
cɛm-ɔn	'to fight'	→	cɛmɪcɛm-ɔs´	'(to be) combative'
ep-on	'to sleep'	→	epop-os´	'to sleep around'
fek-on	'to laugh'	→	fekifek-os´	'(to be) cheerful'
ƙɔɗ-ɔn	'to cry'	→	ƙɔɗɪƙɔ́ɗ-ɔ́s	'to be tearful'

In summary then, the suffix {-ɔ́sí-} has the following three functions:

(206)   *Functional summary of the Ik passive {-ɔ́sí-}*

1	To passivize a transitive clause by omitting its subject (A) and promoting the object (O) to subject (S).
2	To impute stative characteristicness to a transitive subject (A).
3	To stativize an otherwise merely intransitive verb.

To account for these three functions of the passive {-ɔ́sí-}, it can be said that more abstractly, this suffix conveys the meaning 'characterized by X verb'.

7.9.3 Impersonal passive

The suffix {-aní-} acts as the marker of an 'impersonal passive' construction. At first glance, {-aní-} seems to be related to the 'stative' suffix {-án⁺-} (§7.10.3). This superficial resemblence led to {-aní-} being analyzed as stative as well (Serzisko 1992:202). But the two suffixes differ crucially in their underlying tones and [ATR] values and thus cannot easily be linked. The impersonal passive {-aní-} is an opaque recessive suffix that blocks [+ATR] harmony spread from a dominant stem. Its tone is LH, but that can change in the tonal environment of the stem, as seen in examples below.

The construction marked by {-aní-} is called 'passive' because it syntactically omits any subject (A/S), leaving it to be inferred pragmatically. And it is called 'impersonal' because a verb with {-aní-} invariably has 3SG zero-marking, regardless of the person and number of any implied subject.

The impersonal passive can occur with transitive or intransitive verbs. With transitive verbs, the A is omitted, and the O is promoted to S only in terms of surface grammatical relations (marked by case suffixes). That is, the subject of an impersonal passive verb is marked with the NOM case in main clauses. This contrasts it with the So 'impersonal' (Carlin 1993:85), the Toposa 'passive' (Schröder 2008:59), and the Turkana 'impersonal active' (Dimmendaal 1983:72)—all of which retain object-marking for the patient.

However, in most types of subordinate clauses, the patient of an Ik impersonal passive is also encoded as the object (O). So there is a mismatch in alignment between main and subordinate clauses. This seems to indicate transitional forms—the impersonal passive/active being a Kuliak calque from Teso-Turkana (or earlier) that is now being reanalyzed in Ik due to a prohibition against marked objects without subjects in main clauses.

The examples below illustrate these properites of the impersonal passive. First, in (207), presents a normal impersonal passive construction: No agent

is encoded (except an impersonal one), and the patient is encoded as an S in the NOM case. Then in (208), an ungrammatical clause shows that nothing but an impersonal subject can be marked on the impersonal passive verb:

(207) *Inomesana bi.*
       ɪnɔ́m-ɛ́s-an-a   bi-∅
       beat-INT-IPS-REAL   you.sg-NOM
       You will be beaten (Lit. 'It will be beaten you.').

(208) ***Inomesanida bi.*
       **ɪnɔ́m-ɛ́s-án-íd-a   bi-∅
       **beat-INT-IPS-2SG-REAL you.SG-NOM
       **You will be beaten.

Second, the sentence in (209) shows an impersonal passive construction as a subordinate clause acting as the complement to the verbless copulative *ntsúó* 'It is...'. Note that the patient now receives double object-marking: 1) It is postverbal, whereas most subordinate clause subjects are preverbal, and 2) it has the ACC case. Then compare it with (210), where the patient is cast as the subject of the impersonal passive verb—the result is ungrammatical:

(209) *Ntsuo inomanee bik.*
       ntsú-ó   [ɪnɔ́m-án-é = e   bi-kᵃ]_CC
       it-COP   beat-IPS-REAL = DP   you.SG-ACC
       That's why you are beaten (Lit. 'It is (why) it is beaten you.').

(210) ***Ntsuo bia inomanad.*
       **ntsú-ó   [bi-a   ɪnɔ́m-án-á = dᵉ]_CC
       **it-COP   you.SG-ACC   beat-IPS-REAL = DP
       **That's why you are beaten.

Semantically, it can be said that in impersonal passive clauses, the point is not 'who did what' but only that something got done. This would help

explain why the impersonal passive is also used with intransitive verbs. The point is to be as indirect as possible about the agents/people involved and focus only on the fact that something has taken place. The following three examples are fairly common sayings heard among speakers in daily social interaction. The impersonal passive construction serves the Ik well in their proclivity to be curious and inquiring without being direct and rude:

(211)   *Atsana awoo?*
        ats-an-a   awó-o
        come-IPS-REAL   home-ABL
        Are you coming from home (lit. 'Is it come from home')?

(212)   *Kutana is?*
        kʊt-an-a   is
        say-IPS-REAL   what[OBL]
        What do you say/what are people saying (lit. 'It is said what')?

(213)   *Epesana ndaik?*
        ep-és-án-a   ndaí-kᵉ
        sleep-INT-IPS-REAL   where-DAT
        Where will you/people sleep (lit. 'It will be slept where')?

And finally, a few examples from other natural discourse contexts:

(214)   *Cemana emutik.*
        cɛm-an-a   emút-ík-ᵒ
        fight-IPS-REAL   story-PL-INS
        We/people are telling stories (Lit. 'It is fought with stories.').

(215)   *Maa noo iyi ikametanie ntsik.*
        má-á=noo   i-i   ɪkám-ɛ́t-aní-ɛ́   ntsí-kᵃ
        not-REAL=PST3 be-3SG   catch-VEN-IPS-SIML   s/he-ACC
        He wasn't there when he was caught.

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7.9.4 Sequential impersonal passive

The suffix {-ɛsɛ́} is the morphological marker of the 'sequential impersonal passive'. Absolutely no etymological parallels for this suffix have been found. This suffix is recessively [-ATR], having /-ese/ as an allomorph on [+ATR] verbs stems. Before a pause, {-ɛsɛ́} is reduced to /-ɛs/ or /-es/. Its underlying tone is LL(H), the floating H tone being posited on the basis of the H tone it places on a following L-tone-bearing unit. Its own tone melody can change, for example to HL on stems ending in H (T7) or LH before the dummy pronoun { =´dɛ}, as in *ats-esé=dᵉ* 'And people came from there.'

In terms of meaning and function, the sequential impersonal passive (SPS) is a marriage between the sequential aspect and the impersonal passive described in the previous section. It does for the sequential aspect what the impersonal passive does for every other non-sequential clause type. Briefly, it eliminates any subject (A/S) and promotes any object (O) to subject (S). One might say that the SPS takes impersonalness a step further than the impersonal passive in that its morpheme (-ɛsɛ́) is so suppletive in contains no 3SG marker—nor any subject-marker at all. It is an agentless passive *par excellence*, having neither a syntactic nor morphologically encoded agent.

The SPS differs from the impersonal passive in one other way: Even in subordinate clauses where the patient assumes an object's postverbal syntactic slot, the case-marking on that argument remains NOM, for example:

(216) *Na enuƙweese bi, ceiƙweese bi.*
       na = en-úƙó-esé   bi-∅   cɛ-íƙɔ́-ɛsɛ́   bi-∅
       CONJ = see-AND-SPS   you.SG-NOM kill-COMP-SPS   you.SG-NOM
       When you are seen, you are killed.

Like the impersonal passive, the SPS also occurs with intransitive verbs, e.g.:

(217)   *Keese waa loɗiwei.*
    ƙe-ese   wa-a   lóɗíwéí-∅
    go-SPS   harvest-NOM   plant.sp-GEN
    And then one goes to harvest the *Maerua angolensis* plant.

As part of the sequential aspect paradigm, the SPS is used in long strings of discursively (co-)subordinate clauses such as the following:

(218)   *Itsuŋkweese rijika tokobimak.*
    ɪtsóŋ-ƙɔ-ɛsɛ   ríȷ-ík-a   tɔkɔ́b-ɪma-kᵒ˅
    burn-COMP-SPS   forest-PL-NOM   cultivate-1PL.EXC-SEQ
    The forest areas are burned, and we cultivate,

    tokobeese eɗ, ɗwaanetimak,
    tɔkɔ́b-ɛ-ɛsɛ   eɗ-ᵃ   ɗwaan-ét-ɪma-kᵒ˅
    cultivate-INCH-SPS   grain-NOM   weed-INCH-1PL.EXC-SEQ
    and grains begin to be cultivated, and we start weeding,

    aiƙotini weetimak,
    aĕ-íƙót-ini   wé-ét-ima-kᵒ˅
    ripen-COMP-SEQ harvest-VEN-1PL.EXC-SEQ
    and they get ripe, and we harvest,

    ipese ɗipook, beruƙweese loɗuru.
    ip-<u>ese</u>   ɗípɔɔ-kᵉ   bɛr-úƙɔ́-ɛsɛ   lóɗúrú-∅
    thresh-SPS threshing.floor-DAT build-COMP-SPS granary-NOM
    and they are threshed on the threshing floor, and a granary is built.

The sequential impersonal passive cannot be negated in and of itself. If a clause with the SPS needs to be negated, the sequential aspect negator *moo* is employed with the second (negated) verb in the impersonal passive voice. To illustrate this, (219) presents an affirmative sequential impersonal passive sentence, followed by its negative version in (220):

(219) *Honetiakoo ragw, ceiƙweesed.*

    hɔ́n-ɛ́t-ɪa-kɔ́ = ɔ   rágw-ᵃ   cɛ-íƙɔ́-ɛsɛ́ = dᵋ

    drive-VEN-1SG-SEQ = DP   ox-NOM   kill-COMP-SPS = DP

    With that I drove an ox, and it was killed (from that).

(220) *Honetiakoo ragw, moo koto ceiƙotan.*

    hɔ́n-ɛ́t-ɪa-kɔ́ = ɔ   rágw-ᵃ   mo-o = koto   cɛ-íƙɔ́t-an

    drive-VEN-1SG-SEQ = DP   ox-NOM not-SEQ = ADV   kill-COMP-IPS[IRR]

    With that I drove an ox, but it was not killed.

7.9.5 Middle

The suffix {-V́m-} marks what is called the 'middle' construction in Ik. It has another form {-ím-} that occurs exclusively with the inchoative aspect suffix {-ét-} as in {-ím-ét-}. Particularly this latter form ties the Ik middle suffix to the Cushitic language Afar's passive suffix *-im* (Mahaffy n.d., p. 18). The morpheme {-V́m-} also functions in an adjectival role (see §7.10.2).

In most instances, the underspecified vowel in {-V́m-} is a copy of the vowel in the preceding root. This links it formally with the Turkana resultative construction that copies the root final vowel (and consonant if there is one) (Dimmendaal 1983:159). Only with the Ik inchoative middle {-ím-ét-} is the vowel predetermined as /i/. In terms of vowel harmony, {-V́m-} falls into whichever [ATR] class the preceding root belongs to. The suffix, {-ím-ét-}, on the other hand, is dominant, harmonizing to [+ATR] in both directions. The tone of both suffixes remains H(H) unless altered by the stem.

As a marker of middle voice, {-V́m-} applies to transitive verbs and derives intransitive verbs from them. Because an agent is not in view, and because there is an emphasis on process, another label for this morpheme could have been 'perfective impersonal passive'. And because after undergoing a process, the subject enters a resulting state, another lable could be 'resultative', similar to what is in Turkana (Dimmendaal 1983:158).

Despite terminological ambiguity, the following definition of 'middle' is an apt characterization of what the Ik suffix {-V́m-} does: It "expresses a semantically transitive situation in terms of a process undergone by a PATIENT, rather than as an action carried out by an AGENT" (Payne 1997:216). The middle voice in Ik is formed when a transitive clause is detransitivized, conflating the A and O into an S that is both agent and patient in a process. In this sense, the middle is closer in meaning to a reflexive: Among the next three examples, the middle in (221) is said to be closer in meaning to the reflexive in (223) than the transitive in (222):

(221)　*Ŋurumaa dakw.*　　　　　　　　　MIDDLE

　　　ŋʊr-ʊ́m-á-a　　　　dakw-ᵃ

　　　break-MID-REAL-PRF　tree-NOM

　　　The wood has broken.

(222)　*Ŋuraa kona amee dakuk.*　　　　　TRANSITIVE

　　　ŋʊr-á-á　　　　kɔn-a　　　ámé-e　　　dakú-kᵃ

　　　cut-REAL-PRF　one-NOM　person-GEN　tree-ACC

　　　Someone has broken the wood.

(223)　*Ŋuraa dakwa asik.*　　　　　　　REFLEXIVE

　　　ŋʊr-á-á　　　dakw-a　　　así-kᵃ

　　　cut-REAL-PRF　tree-NOM　self-ACC

　　　The wood has broken itself.

The table in (224) gives examples of lexical, detransitivized middle verbs:

(224)　*Middle verbs derived with {-V́m-}*

ɓɛl-ɛ́s	'to crack'	→	ɓɛl-ɛ́m-ɔ́n	'to crack'
ɓil-és	'to burst'	→	ɓil-ím-ón	'to burst'
hoɗ-és	'to loosen'	→	hoɗ-óm-ón	'to loosen'
ŋáɲ-ɛ́s	'to open'	→	ŋáɲ-ám-on	'to open'
ŋʊr-ɛ́s	'to break'	→	ŋʊr-ʊ́m-ɔ́n	'to break'

And here are a couple of examples of the middle voice in everyday speech:

(225)   *Hoɗomaa ƙwaz*
        hoɗ-óm-á-a   ƙwaz-∅
        loosen-MID-REAL-PRF clothing-NOM
        (My) clothing came off.

(226)   *Teremata nak.*
        ter-ém-át-a = nakᵃ
        divide-MID-3PL-REAL = PST1
        They (got) separated (i.e. husband and wife).

The most commonly occuring form of the middle voice marking is {-ím-ét-}. It is the required allomorph with polysyllabic verb roots and possibly those with a depressor consonant (further study is need on this score). As a composite morpheme with [+ATR] vowels, this 'inchoative middle' harmonizes the preceding stem to [+ATR] if no opaque /a/ intervenes. In addition to middle voice, and the often coinciding present perfect aspect, the inchoative middle gives this composite morpheme a further sense that a process has been initiated with ongoing consequences. Below are some lexical examples with the inchoative middle composite morpheme:

(227)   *Middle verbs derived with {-ím-ét-}*

iɓélé-és	'to change'	→	iɓélé-imet-on	'to change'
isómé-és	'to read'	→	isómá-imet-on	'to be read'
kán-ɛ́s	'to wipe'	→	kan-ímét-on	'to be wiped out'
réb-es	'to withold'	→	réb-imet-on	'to go without'
tawan-ɛs´	'to afflict'	→	tawan-ímét-on	'to suffer'

In Ik's sister Kuliak language So, the form *-mɛt* is the marker of an 'intransitive state' (Carlin 1993:47). It is analyzed there as being derived from the copula verb *mɛt-* (*mɨt-* in Ik), but more likely it is an eroded morphological remnant of the Ik inchoative middle suffix {-ím-ét-}.

To conclude, here are a few examples of is {-ím-ét-} in natural contexts:

(228) *Isio noo itiyaimeta kaino noo Lopiaari?*
       isi-o=noo   itíyá-im-et-a   kaɪn-ɔ=nɔɔ   lopíáarí-∅
       what-COP=PST3 do-MID-INCH-REAL year-INS=REL.SG.PST3 lopiar-GEN
       What happened in the year of Lopiar?

(229) *Inakwiimetaa tokoba kainiko ni.*
       ináꞥwí-im-et-á-á   tɔkɔb-a   kaín-ík-o=ni
       ruin-MID-INCH-REAL-PRF farming-NOM   year-PL-INS=DEM.PL
       Farming is ruined these years.

(230) *Tawanimetiaak.*
       tawan-im-et-í-a-kᵃ
       afflict-MID-INCH-1SG-REAL-PRF
       I'm hurt/I'm suffering.

7.9.6 *Reciprocal*

The suffix {-ínɔ́sí-} communicates reciprocity. It is morphologically complex, consisting of the plural possessive suffix -íní- (from which the reciprocity component is probably derived; see §4.2.5) plus the passive suffix {-ɔ́sí-} (§7.9.2). But it is treated here as one suffix. A frequent variant of the 'reciprocal' is {-ímɔ́sí-}. It is not known whether this allomorph developed along different lines historically or whether it is just a phonological variant. Both variants are recessively [-ATR], with allomorphs */-ínósí-/* or */-ímósí-/* on [+ATR] stems. Their tone is HHH, or LHH after a depressor consonant.

When applied to a transitive or extended transitive verb, the reciprocal suffix decreases the valency of the verb by one. It does this by combining A and O (or A and E in the case of an extended transitive) into a single subject (S). However, when applied to an intransitive verb, the reciprocal does not alter the valency of the verb. The original plural S remains an S. On

intransitive verbs, the reciprocal conveys notions of togetherness. The following are example of the reciprocal on verbs with different valencies:

(231) *Derived reciprocal verbs*

Transitive verbs (A + O → S)	
én-ímósí-	'to see each other (i.e. visit)'
ɦye-imósí-	'to know each other (i.e. be related)'
iɓól-ínósí-	'to promise each other (make a pact or covenant)'
ɪkát-ínɔ́sí-	'to try each other (i.e. compete)'
ɪríts-ínɔ́sí-	'to care for each other'
mín-ínɔ́sí-	'to love each other'
torík-ínósí-	'to lead each other (i.e. walk together)'
Extended transitive verbs (A + E → S)	
tód-inósí-	'to speak to each other'
Intransitive verbs (S → S)	
ɓɛkɛ́s-ínɔ́sí-	'to walk together'
naruét-ímósí-	'to be neighbors'

A verb inflected with the reciprocal suffix can function in the clause as a noun or a verb. That is, the reciprocal is also a nominalizer. When used as a noun, a reciprocal stem takes case suffixes, and when used as a verb, it takes the appropriate verbal suffixes. A commonly used example of the reciprocal stem-as-noun is *ɦyeínós*: Formed by the verb *ɦye-* 'know' and the reciprocal suffix, this verb stem means 'relative'. But even it can function as a noun or verb, as in *ɦyeínósím* 'We know/are related to each other'.

Some examples of the reciprocal in natural discourse include the following:

(232) *Iritsinosu.*
ɪríts-ínɔ́s-ʊ́
keep-RECIP-IMP.PL
Take care of each other.

(233) *Enimosined.*

én-ímós-íné = d^e

see-RECIP-1SG[OPT] = DP

Let me visit (with her).

(234) *Esetinosio cikama kutatik,...*

eset-ínós-í-o   cıkám-á   kʊt-áti-k^e

ask-RECIP-3SG-SEQ   women-NOM   say-3PL-SIML

And the women asked themselves saying,…

(235) *Ɗemusu roɓaa ɦyeitimosat.*

ɗɛmʊsʊ   roɓa-a   ɦye-it-ímós-át^i

before   people-ACC   know-CAUS-RECIP-3PL[SUBJ]

Before people recognize each other.

(236) *Roɓa ni biraa morinosia iyad.*

roɓ-a = ni   bıra-a   mór-ínósí-a   i-á = d^e

people-NOM = REL.PL   not.be-REAL   fear-RECIP-ACC   be-REAL = DP

People in whom there is no mutual respect.

7.10 Adjectivals

Dixon asserts that every language has an adjectival word class, regardless of how similar it may be to either nouns or verbs (2010:62). Cross-linguistically, 'adjectives' tend to be distinguished as a distinct word class based on relative similarities or differences between them and nouns or verbs. The following diagram presents a typology of 'adjectives' in which similarity and difference are modeled as spatial distance (Dixon 2010:66):

(237) a) NOUN   ADJECTIVE   VERB

b) NOUN   ADJECTIVE   VERB

c)   NOUN   ADJECTIVE   VERB

d) NOUN   ADJECTIVE   VERB

According to this typology, Ik is a type (a) language whose adjectives exhibit many verb-like characteristics. So many that, despite Dixon's assertion, 'adjectives' are treated here as an 'adjectival' subset of intransitive verbs instead of their own, separate word class. This is because, morpologically and syntactically, they are just like other intransitive verbs. Nonetheless, their semantics do cover categories traditionally handled by adjectives, as shown below. And a handful of suffixes are found only on 'adjectival' verbs, also as described in the following sections.

The semantic properties encoded by adjectival verbs include the following:

(238) *Dimension*

ɓoɓ-	'deep'
ɪ́ɗǐŋ-	'narrow'
ɪkár-	'thin'
kik-ím-	'medium build'
kúɗ-	'short'
kwáts-	'small'
tɛ́ɬɛ́z-ɛm-	'shallow'
ze-	'big'
zikíɓ̀-	'tall, long'
zíž̀-	'fat'

(239) *Shape*

ɗap-ál-ám-	'flat'
kaɗ-ús-úm-	'small-bodied'
laɓ-áɲ-ám-	'expansive'
lɪk-íɗ-ím-	'hour-glass shaped'
paɗ-ók-óm-	'sunken'
pʊŋ-úr-úm-	'short and stubby'
sem-él-ém-	'oval'
sʊl-út-úm-	'conical'
zaɗ-íɗ-ím-	'arched'

(240)   *Age*

dun-ét-	'ageing'
erúts-	'new, recent'
kɔw-	'old'
kwáts-	'young'

(241)   *Value*

da-	'nice'
gaan-	'bad'
maráŋ-	'good'

(242)   *Color*

bós-án-	'blue, gray'
buɗám-	'black'
ɓets'-	'white'
ɗiw-	'red'
ɪlíɓ-	'green'
meriʃ-án-	'colorful'
muƙí-án-et	'brown'
ɔŋɔ́r-án-et-	'dark red'

(243)   *Physical property*

bɔf-ɔ́d-	'puffy'
dul-áts'-ám-	'fat and juicy'
ɟa-ʋl-ím-	'sleek'
lɪw-íd-	'smooth'
mɪt-ír-ím-	'withered'
ŋar-úd-	'crunchy'
ɲɔŋ-ɔ́r-ɔ́m-	'dirty'
ts'al-íd-	'oily'

(244)   *Behavioral propensity*

batán-	'kind'
fiyɛt-	'fierce'
nɔ-ós-án-	'wise, clever'
ɪráká-án-	'jealous'
ɪtsán-án-	'irritating'

(245)   *Speed*

inípón-	'slow'
itírón-	'fast'

(246)   *Difficulty*

bat-án-	'easy'
itíón-	'difficult'

(247)   *Difference*

ɟal-án-	'different'

First, just like other intransitive verbs, Ik adjectival verbs encode these semantic properties by being the head of a clause's predicate. In (248), the intransitive verb *i-* 'be (somewhere)' fills the clause-initial slot for main verbs, as does the adjectival verb *maráŋ-* 'good'. This syntactic slot reserved for verbs (in unmarked clauses) as well as the verbal realis affix {-a} show that *maráŋ-* is functioning as the predicate head in example two of (248):

(248)   *Iya Ɲakuɟ.*   *Maraŋa Ɲakuɟ.*

i-a	ɲakuɟ-ᵃ	maráŋ-á	ɲakuɟ-ᵃ
be-REAL	god-NOM	good-REAL	god-NOM
God is there.		God is good.	

Secondly, Ik adjectival verbs help specify a noun's referent by acting as a modifier within the relevant noun phrase. To do this, they occur as stative verbs within restrictive relative clauses following the modified NP, as in:

(249)   *Ama na da.*
        ám-á = [ná   da-∅]_{RC}
        person-NOM = REL.SG   nice-REAL
        A person who is nice/a nice person

(250)   *Roɓa ni dayaak.*
        roɓ-a = [ni   da-i-aák-ᵃ]_{RC}
        people-NOM = REL.PL   nice-PLUR-DISTR-REAL
        People who are nice/nice people

So just like in (248), the adjectivals in (249)-(250) fill the slot that a verb would normally fill. Compare those with the following non-adjectival verbs:

(251)   *Ama na beɗa ƙoonik.*
        ám-á = [na   bɛɗ-á   ƙo-oni-kᵃ]_{RC}
        person-NOM = REL.SG   want-REAL   go-INF-ACC
        The person who wants to go.

(252)   *Roɓa ni beɗa ƙoonik.*
        roɓ-a = [ni   bɛɗ-á   ƙo-oni-kᵃ]_{RC}
        people-NOM = REL.PL   want-REAL   go-INF-ACC
        The people who want to go.

Thirdly, Ik adjectival verbs function as the parameter in comparative constructions, of which Ik has two types (see §9.12). One involves the ablative case, and the other verb *ilɔ-* 'defeat' as the comparative index:

(253) *Kwatsa bu.*

kwáts-á   bu-∅

small-REAL   you.SG-ABL

He's smaller than you (lit. 'He's small from you').

(254) *Kwatsa iloie bik.*

kwáts-á   ɪlɔ́-í-ɛ   bi-kᵃ

small-REAL   defeat-3SG-SIML   you.SG-ACC

He's smaller than you (lit. 'He is small defeating you').

Fourthly, Ik adjectival verbs can function like adverbs in modifying a verb's referent. They do this in conjunction with the simultaneous aspect suffix {-kɛ} in a postverbal simultaneous clause, as in:

(255) *Epuƙwee maraŋidik.*

ep-uƙo-e   maráŋ-ídi-kᵉ

sleep-COMP-IMP.SG   good-2SG-SIML

Sleep well (lit. 'Sleep you being good')!

(256) *Imeɗetaa ɓets'ik.*

ɪmɛɗ-ɛt-á-á   ɓets'-i-kᵉ

sparkle-INCH-REAL-PRF   white-3SG-SIML

It's sparkling brightly (lit. 'It has sparkled being white').

In the predicate slot, adjectival verbs and other intransitive verbs differ only slightly. For obvious semantic reasons, adjectivals do not cooccur with either directional suffixes or the various passive suffixes. But other than these, adjectivals can take all the other inflectional and derivational suffixes found on other verbs. Even so, semantics and pragmatics may eliminate some adjectival-suffix combinations from the realm of possibility. For example, though the adjective *da-* 'nice' can be made into an imperative like *daᵉ* 'Be nice!' or an optative like *dayaákáno* 'Let's be nice', it is hard to imagine a color or a other involuntary physical property being commanded.

Ik adjectivals are less distinguishable by what suffixes they share with other verbs (almost all) than by the suffixes they do not share. The adjectival verbs exhibit a handful of suffixes found only on adjectivals. These include the two 'physical property' suffixes (§7.10.1-§7.10.2), the stative suffix (§7.10.3), the plural adjective suffix (§7.10.4), and the distributive suffix (§7.10.5). Each of these are described in their respective sections below.

7.10.1 Physical property I

The adjectival suffix {-V́d-} is a called the 'physical property I' marker. It is potentially related to the final VC sequence in Turkana words like *jʊrʊt* 'callow' (Dimmendaal 1983:143). But regardless, it is most likely a retention of the proto-Nilo-Saharan 'adjective suffix' *-d/-od?* (Ehret 2001:154). The suffix usually (but not always) copies the root-final vowel, and thus takes whatever [ATR] value the copied vowel has. Its tone is invariably H(L): Since it contains the depressor /d/, the next vowel always bears L tone.

The physical property I suffix is used to express real physical properties of the clause's subject. These properties include things like size, shape, appearance, texture, consistency, and other such tangible attributes. The meaning of this suffix often coincides with that of English adjectives ending in *-y*, like gooey, gummy, gushy, squashy, squishy, etc.

Physical property I (PHYS1) adjectivals function as the heads of intransitive predicates, such that they are nominalized with the infinitivizer {-ɔnɪ-}, as in *ɔf-ɔ́d-ɔnɪ-* 'to be light'. The PHYS1 suffix immediately follows the root but can precede any number of other verbal affixes, such as in *ol-ód-uƙot-u-kɔ́=dᵉ* 'And from that it became light' or *ol-ód-aak-ít-ᵃ* 'You (pl.) are light'.

The table in (257) presents some physical property I lexical adjectivals. In the first four examples, the suffix's underspecified vowel a copy of the preceding root-vowel. While in the second four, the vowel is different:

(257)   *Vowel patterns in physical property I adjectivals*

CV₁C-V₁C-	
bɛɗ-ɛ́d-	'delicate'
lɪw-íd-	'smooth'
lyam-ád-	'powdery'
ŋʊɓ-ʊ́d-	'brittle'

CV₁C-V₂C-	
bɛf-ʊ́d-	'hefty'
ɓal-íd-	'glistening'
ŋar-ʊ́d-	'crunchy'
pɪl-ɔ́d-	'slippery'

The reason for this discrepancy in vowel patterns is not clear. Any possible explanation will hinge on a broader analysis of Ik verbal roots. In modern Ik, many lexical items can function as either nouns or verbs, depending on the suffixes they are given. When functioning as verbs, such lexemes are analyzed as ending in a consonant. When functioning as nouns, they are analyzed as ending in a vowel, as in *tɔkɔb-* 'farm (v.)' versus *tɔkɔba-* 'farming (n.)'. So it could be that adjectival forms in (257) preserve an older morphology in which verbal roots also ended in vowels. This could mean that these roots are actually bisyllabic and the physical property I suffix is really just {-d-}. Then it would be coincidental that some roots have the same vowel in both syllables while others did not.

But a) in keeping with the broader analysis of Ik verbal roots in this grammar, and b) given that in the majority of instances of the physical property I suffix the vowel is identical with the root vowel, this morpheme is analyzed as having the structure {-V́d-}. This conclusion, of course, does not preclude further investigation into this issue.

So more examples of physical property I adjectival verbs are given below to illustrate the semantic vividness it expresses:

(258) *Physical property I adjectivals*

bɔf-ɔ́d-	'puffy'
buf-úd-	'spongy'
dab-úd-	'mushy'
dɛɟ-ɛ́d-	'squat'
gɔk-ɔ́d-	'stiff'
gwid-íd-	'limber'
ɟam-úd-	'velvety'
kwits'-íd-	'juicy'
mɪl-íd-	'shiny'
na-úd-	'flimsy'
nɛr-ɛ́d-	'wobbly'
tsak-ád-	'watery'
ts'al-íd-	'oily'
tuɗ-ád-	'leathery'
wɪɲ-íd-	'syrupy'
wuɟ-úd-	'jiggly'
ʃa-úd-	'paper-thin'

In most cases, a corresponding noun root cannot be found for adjectivals like the ones in (258), but there are a few exceptions. For, example, the noun root *bɛfá-* 'puff adder' is clearly related to *bɛf-ʊ́d-* 'hefty' since the puff adder is quite a hefty snake. The noun root *ɗosi-* 'gum, sap' seems related to *ɗɔs-ɔ́d-* 'gummy', despite a change in [ATR] value. One can speculate for others, for example if and how *gɔka-* 'larynx' is related to *gɔk-ɔ́d-* 'stiff'.

An interesting feature of adjectivals with the physical property I suffix is that the adjectival root can be repeated as a sort of emphatic particle, as in:

(259) *Liida lii.*

lí-íd-a	lii
quiet-PHYS1-REAL	EMPH

It's totally quiet.

(260) *Maŋada maŋ.*

maŋ-ád-a   maŋ

thick-PHYS1-REAL   EMPH

It's extremely thick.

(261) *Kwexeduꝅotaa kwex.*

kwɛʃ-ɛ́d-ʊꝅɔt-á-á   kwɛʃ

be.thin-PHYS1-COMP-REAL-PRF   EMPH

It has become extremely thin.

7.10.2 Physical property II

The physical property II suffix—{-V́m-}—is identical to the middle voice marker described above in §7.9.5. Historically, both these morphemes most likely arose from the same proto-morpheme. Synchronically, the middle suffix occurs with transitive verbs, while the physical property II suffix occurs with intransitive adjectival verbs. Particularly as an adjectival morpheme, {-V́m-} resembles the final *Vm* sequence in Turkana adjectivals like *ŋalom* 'missing front teeth' (Dimmendaal 1983:143-144). The suffix {-V́m-} takes whatever [ATR] value is supplied by the copied vowel. Its tone is invariably H unless preceded by a depressor as in *téꝅέz-ɛm-* 'shallow'.

The physical property II suffix also expresses the physical properties of a subject in conjunction with the verbal root to which it is affixed. Like the physical property I suffix, PHYS2 can convey tangible attributes like shape, posture, texture, color, consitency, appearance. But it can also communicate less tangible features like weakness, strength, and other internal states.

Physical property II adjectivals function as intransitive predicates, so they are nominalized with the infinitivizer {-ɔnɪ-} as in *gak-ím-óni-* 'to be too weak to move'. Often between the root and the PHYS2 suffix there is an intervening archaic morpheme consisting of an underspecified vowel and a consonant, for example, *-Vl, *-Vk, *-Vɲ, *-Vr,* or *-Vs.* More comparative

research is required to trace the origin of these underspecified morphemes. However, they are likely retentions of the series of derivational suffixes posited for proto-Nilo-Saharan, many of which contain underspecified vowels in various Nilo-Saharan daughter languages (Ehret 2001:145-165).

The physical property II suffix's underspecified vowel is almost always a copy of the preceding vowel, whether directly from the root or from an intervening archaic morpheme like *-Vr* or *-Vs*. The first ten words in (262) exhibit root-vowel copying, while the last two show different vowels:

(262)   *Vowel patterns in physical property II adjectivals*

$CV_1CV_1C\text{-}V_1C$	
bɛlɛ́r-ɛ́m-	'bulging'
ɗapál-ám-	'flat'
duláts'-ám-	'fat and juicy'
kik-ím-	'stout'
lɪkíɗ-ím-	'hour-glass shaped'
ŋɔrɔ́ɲ-ɔ́m-	'dirty'
pʊŋʊ́r-ʊ́m	'stumpy'
semél-ém-	'oval'
toróŋ-óm-	'ridged'
tuɗús-úm-	'naked'

$CV_1(C)V_2C\text{-}V_3C$	
ʝul-ím-	'sleek'
ɲaŋál-óm-	'gap-toothed'

The following table gives more examples of physical property II adjectivals to illustrate the semantic vividness they can express:

(263) *Physical property II adjectivals*

bulúƙ-úm-	'abnormally big-headed'
ɗatáɲ-ám-	'flat on top and bottom'
heɓúl-úm-	'pot-bellied'
kaɗús-óm-	'small-bodied'
kweel-ém-	'big and pointed (of ears)'
laɓáɲ-ám-	'expansive'
mɪtír-ím-	'withered'
paɗók-óm-	'sunken'
pɪlír-ím-	'squinty-eyed'
rɛƙéɲ-ém-	'stunted'
sʋlút-úm-	'conical'
taɓóɲ-óm-	'flat-buttocked'

For most of the PHYS2 adjectivals, corresponding verb roots have not been identified in other lexemes. However, there are clues that these adjectivals can be built from nouns. For example, the verb *karúts'-úm-* 'be crunchy like a carrot' is obviously related to *káruts'a-* 'carrot', and the verb *paɗók-óm-* 'be sunken' can likely be linked to *paɗo-* 'small cave'. A few others have identifiable bases in other lexemes, for example, *ɟʋrút-úm-* 'slippery' from *ɟúr-* 'rub, massage' and *olól-óm-* 'eager' from *ol-ód-* 'light, eager'.

7.10.3 Stative

The 'stative' adjectival suffix {-án-} expresses an ongoing state or condition characterized by the meaning of a transitive verb, an intransitive verb, or even a noun. It is certainly related to the Turkana 'habitual stative' suffix *-aan/-oon* (Dimmendaal 1983:107) as can be seen in cognate forms *á-pég-áán-a* (Turkana) and *nɛpɛk-án-ón* (Ik) 'be argumentative'. Reflexes are also found in Cushitic languages: the Afar 'customary/habitual' *ene* (Mahaffy, n.d., p. 31) and the Dhaasanac 'adjective focus form' *-áan/-éen/-óon* (Tosco 2001:209). The cross-phyletic presence of these parallels suggests areal movement, though the directionality of borrowing has yet to be established.

The tone of the stative adjectival {-án-} is H, though it may bear L tone after a depressor consonant, for example in *ságo-an-* 'be ensnared'. It is one of the language's opaque dominantly [+ATR] suffixes and as such can also be represented as {-án⁺-}. Being dominant, it harmonizes any recessive suffixes following it, and being opaque, prevents harmony spread leftward. This suffix superficially resembles the impersonal passive suffix {-aní-}, but their different tones and [ATR] value make a shared history less than likely.

An adjectival verb with {-án-} derived from a transitive verb communicates a passive situation focusing not on the direct result of an action but rather on the ongoing state of the passivized patient. Consider these examples:

(264)   *Stative verbs derived from transitive verbs*

Transitive			Stative	
dzɛr-	'tear'	→	dzɛ́rɛ́dzɛr-án-	'be all torn up'
ɗɔts-	'join'	→	ɗɔts-án-	'be joined'
ɪraŋ-	'spoil'	→	ɪráŋún-án-	'be spoiled'
ɪtal-	'forbid'	→	ɪtál-í-án-	'be taboo'
ógo-	'let go'	→	ógo-an-	'be let go'
raɟ-	'return'	→	raɟ-án-	'be returned'
zík-	'tie'	→	zíkízɪk-án-	'be all tied up'

Less commonly, the stative can characterize the agent of a transitive situation rather than the patient, for example in the verb *ɪtsán-án-* 'be irritating' (rather than 'irritated' or 'irritable') from *ɪtsán-* 'to irritate'.

Contrary to the verbs in (264), most stative adjectival verbs do not have independently identified basic verb roots. Therefore it is difficult (if not impossible) to tell whether they are derived from underlyingly transitive or intransitive verbs. And this makes it doubly difficult to discern the semantic changes {-án-} makes to a base verb stem. Perhaps the basic roots of verbs like these below in (265) will come to light with further in-depth research:

(265) *Stative verbs without independent basic roots*

aɓúlúk-án-	'fall off, roll down'
alámáár-án-	'sway'
ɓaaɓ-án-	'be cracked'
bós-án-	'be blue'
bu-án-	'disappear'
ɗɛɗɛ-án-	'pitter-patter'
ɗutúɗút-án-	'be disintegrated'
erut-án-	'low (of cows)'
firifír-án-	'come and go'
gaga-án-	'laugh while talking'
hádaad-án-	'be a poor shot'
iɟúŋá-án-	'be confused'
ƙoƙo-án-	'stretch'
ŋoróts-án-	'drain bloody liquid'
rúgurug-án	'be rough, bumpy'
soƙol-án-	'curved frontwards'

Lastly, stative adjectival verbs can be derived with {-án-} from nouns. In this way, the verb's subject is attributed with the noun's core characteristics:

(266) *Stative verbs derived from nouns*

Noun			Stative	
cɛmá-	'fight'	→	cɛm-ɛk-án-	'be a fighter'
céŋá-	'joke'	→	ceŋ-án-	'be joking'
cué-	'water'	→	cu-án-	'be liquid'
ésá-	'drunkenness'	→	ɛs-án-	'be drunk'
ɪ̯ʊɛ́-	'lie'	→	ɪ̯ʊ-án-	'be a liar'
ɟáká-	'elders'	→	iɟáká-án-	'be wealthy'
kirotí-	'sweat'	→	kirot-án-	'be sweaty'
ɲɛƙɛ-	'hunger'	→	ɲɛƙ-án-	'be hungry'
ŋókí-	'dog'	→	iŋókí-án-	'be poor'
ságo-	'snare'	→	ságo-an-	'be ensnared'

In closing, the following examples of the stative suffix {-án-} in discourse contexts illustrate how it is inflected for subject-agreement on the verb:

(267)   *Muɗʊkanid.*
        múɗúk-án-íd-∅
        blind-STAT-2SG-REAL
        You are blind.

(268)   *...iɗoɗokanatie tumedoo jik.*
        iɗóɗók-án-áti-e   tʊmɛˈdɔ́-ɔ́   ɟík
        pile-STAT-3PL-SIML   there-ABL   ADV
        ...(they being) piled up all over there.

(269)   *Iteisinoo wicee tutukanatie ho.*
        ɪté-ísɪnɔ-ɔ   wicé-é   tutuk-an-áti-e   ho-∅
        reach-1PL.INC-SEQ   children-DAT   curl-STAT-3PL-SIML   house-ABL
        And we found the children curled up in the house.

7.10.5 Plural

The 'plural adjectival' suffix {-ɪk-} is only rarely attested. It is most likely related to the plurative III suffix {-ɪka-} (§4.2.3). These morphemes have parallels in Surmic (e.g. Murle) and Teso-Turkana which are of "considerable antiquity" (Dimmendaal 1983:333). The suffix {-ɪk-} is recessive but harmonizes to /-ik-/ on [+ATR] stems. It has a L tone.

The plural adjectival suffix obligatorily marks a tiny subset of adjectival verbs as plural. Only two examples are known: *ze-* 'big' and *kwáts-* 'small':

(270)   *roɓa ni zeik*
        roɓ-a = ní   ze-ik-[a]
        people-NOM = REL.PL   big-ADJ.PL-REAL
        big people (i.e. adults or persons in charge)

(271)   *wika ni kwatsik*

       wik-a＝ni   kwáts-ik-ᵃ

       children-NOM＝REL.PL   small-ADJ.PL-REAL

       small children

The plural adjectival suffix often occurs with the distributive adjectival suffix {-aák-} (described in the next section):

(272)   *Beɗata zeikaakonuƙotik.*

       béɗ-át-a   ze-ik-aak-ón-uƙotí-kᵃ

       want-3PL.REAL   big-ADJ.PL-DISTR-INF-COMP-ACC

       They are (each) about to get big.

(273)   *Kwatsikaakit.*

       kwats-ik-aak-ít-ᵃ

       small-ADJ.PL-DISTR-2PL-REAL

       You (each one of you) are small.

7.10.6 Distributive

The 'distributive' adjectival suffix {-aák-} gives a plural adjectival verb a sense of distributiveness. It is probably related historically to the Turkana plural habitual stative *-aak* that conveys 'iterativity' and 'regularity' (Dimmendaal 1983:107). The Ik suffix has a LH tone melody but is often flattened to LL in stems due to high-tone suppression (T6). It can also surface as HH as a result of high-tone anticipation (T5). Since it is an opaque dominantly [+ATR] suffix, it can also be represented as {-aák⁺-}. It harmonizes recessive suffixes rightward but not leftward because of /a/.

Being a marker of distributiveness, {-aák-} highlights that each member of a group is equally characterized by a plural verb's meaning. As such, the suffix can occur with first, second, and third-plural subjects, for example:

(274) *Distributive adjectival verbs*

1PL.EXC	maraŋ-aak-ím	'We are all good.'
1PL.INC	maraŋ-aak-ísin	'We are all good.'
2PL	maraŋ-aak-ítᵃ	'You are all good.'
3PL	maraŋ-aak-átᵃ	'They are all good.'

Because {-aák-} ends in the segment /k/, haplology occurs when the suffix is followed by the completive aspect morpheme {-ʊ́ƙɔtí-} containing /ƙ/. This results in a /-áá-/ being a haplologized allomorph of the distributive:

(275) *Zeikaaƙotatak.*

ze-ik-áá-ƙot-át-a-kᵃ

be-ADJ.PL-DISTR-COMP-3PL-REAL-PRF

They've each grown big.

(276) *Maa xeɓiaaƙoit.*

má-á   ʃeɓ-i-áá-ƙo-ít-ᵃ

not-REAL   afraid-PLUR-DISTR-COMP-2PL-REAL

Don't (each of you) be afraid!

The following are some more instances of the distributive in discourse:

(277) *Itaaka niyee ɲi.*

it-aak-á   nié-é = ɲi

be.a.size-DISTR-REAL place.PL-DAT = DEM.PL

They each reach this size (lit. 'these sizes').

(278) *Atsimaa ɓets'aakimie pak.*

ats-ima-a   ɓets'-aak-ími-e   pakⁱ

come-1PL.EXC-SEQ   white-DISTR-1PL.EXC-SIML   IDEO

And we came (each of us being) totally white.

7.11 Tense markers

Tense in Ik is a grammatical category that is not reflected in verbal morphology *per se* but rather in a group of tense particles. The past tenses are expressed by a class of particles analyzed as enclitics because a) they participate in vowel harmony and b) are also in the second position of the clause (§7.11.1). By contrast, the non-past tense particles are treated as free, syntactically mobile adverbial words (§7.11.2).

In the Ik tense system, there is a three-term past tense and three-term non-Past tense distinction. These six terms are presented in (279) along with the enclitics and adverbial particles that encode them:

(279) *Ik six-term tense system*

Past		Non-final	Final
Remote past	PST3	=nɔɔ	=nɔkˀ
Removed past	PST2	=bɛɛ	=batsᵉ
Recent past	PST1	=náa	=nákᵃ
Non-Past			
Distended present	PRES	ts'ɔɔ	ts'ɔɔ
Removed future	FUT2	táa	táa
Remote future	FUT3	fara	far

These tense particles are usually found with verbs in the realis modality, but they can also less commonly occur with irrealis verbs in the simultaneous or sequential aspects, for example here in (280):

(280) *Tense enclitics with different TAM types*

Realis:	gaan-át-a=batsᵉ	'They were bad yesterday.'
Simultaneous:	gaan-áti-e=batsᵉ	'they being bad yesterday.'
Sequential:	gaan-iní=i=batsᵉ	'And from there they were bad yesterday.'

7.11.1 Past tense clitics

As noted above, the past tense particles shown in (279) are analyzed as enclitics for two reasons: 1) They participate in vowel harmony within the phonological word, and 2) they are usually the second element in the clause. Vowel harmony only affects the remote =nɔɔ and removed =bɛɛ since the recent past =náa contains only /a/. If the morpheme to which these recessive clitics attach is [-ATR], then they remain the same. But if the morpheme is [+ATR] the clitics are harmonized to =noo and =bee. In the following four examples, the [-ATR] verbs áts'- 'eat' and ʃɪk- 'hang' are first separated from the tense clitics by the dominant opaque [+ATR] realis suffix {-a⁺}. This suffix harmonizes the tense clitic but not the verb stem. In the second set of sentences (right column), no [+ATR] suffix intervenes, and so the underlying [-ATR] forms of the clitics are allowed to surface:

(281) *Ats'uƙota nok.*   *Ats'uƙotukoo nok.*

     áts'-úƙɔt-a=nokᵒ   áts'-úƙɔt-ʊ-kɔ́=ɔ=nɔkᵓ

     eat-COMP-REAL=PST3   eat-COMP-3SG-SEQ=DP=PST

     He ate (it) up.   And from there he ate (it) all up.

(282) *Xika bee?*   *Xikukoo bee?*

     ʃɪk-á=bee   ʃɪk-ʊ-kɔ́=ɔ=bɛɛ

     hang-REAL=PST   hang-3SG-SEQ=DP=PST

     Did he hang it yesterday?   And did he hang it from there?

As 'second-position' clitics, the Ik past tense clitics generally immediately follow the first element of the clause. That element is usually the main verb, but can also be a negating verb, a verbless copula, or even a conjunction:

(283) *Nƙaƙia nak.*

     ŋƙáƙ-í-a=nakᵃ

     eat-1SG-REAL=PST1

     I ate (earlier today).

(284)   *Maa naa nkaki.*
  má-á = naa ŋƙáƙ-íⁱ
  not-REAL = PST1 eat-1SG[IRR]
  I didn't eat (earlier today).

(285)   *Ntsuo naa nkakiaad.*
  ntsú-ó = naa ŋƙáƙ-í-á = dᵉ
  it-COP = PST1 eat-1SG-REAL = DP
  That's why I ate (earlier today).

(286)   *Nanaa nkakiaadee,...*
  na = náa ŋƙáƙ-í-á = deé
  CONJ = PST1 eat-1SG-REAL = DP
  When I had eaten (earlier today),...

As shown back in (279), the Ik tense system has three past-tenses. Recent past covers the general time period of 'earlier today'. Removed past covers 'the last X' where X is a specified time unit like 'hour', 'day', 'week', 'year', etc. If the time unit is not specified, then 'last day' or 'yesterday' is implied. The Ik Removed Past coincides nicely with the archaic English descriptor 'yester-' as in *yesterday* and *yesteryear*. Remote past covers the time period from 'before yesterday' to as far back in time as the speaker might intend. The three past tense markers and their time depths are repeated below:

(287)   *Ik past tense enclitics*

	UF	NF	FF	
Remote (PST3)	nɔkɔ	= nɔɔ	= nɔkˀ	'before yesterday'
Removed (PST2)	batse	= bɛɛ	= batsᵉ	'yester-(day)'
Recent (PST1)	náka	= náa	= nákᵃ	'earlier today'

The following sentences illustrate these tense clitics with a simple verb:

(288) *Atsia nak.*

ats-í-á = nakᵃ

come-1SG-REAL = PST1

I came (earlier today).

(289) *Atsia bats.*

ats-í-á = batsᵉ

come-1SG-REAL = PST2

I came yesterday.

(290) *Atsia nok.*

ats-í-á = nokᵒ

come-1SG-REAL = PST3

I came a while back/a long time ago.

Two of the past tense clitics—the remote past =nɔkɔ and the recent past =náka—are identical in form to demonstratives and relative pronouns of the same tense specification. Ik demonstratives are tensed (see §8.2), and it is suggested here that relative pronouns and two of the three tense particles may have developed out of the demonstrative system:

(291) *A comparison of tensed grammatical systems*

	Demonstratives	Relative pronouns	Tense clitics
Recent	ná-ka	ná-ka	ná-ka
Removed	sɪ-na	sɪ-na	(ba-tse)
Remote	nɔ-kɔ	nɔ-kɔ	nɔ-kɔ

A comparison of the three grammatical systems shows they are linked by what appear to be archaic morphemes: *-ʼka for recent past, *-(t)se/sɪʔ for removed, and *-kɔ for remote. The suffix *-ʼka is related to the present perfect suffix {-ʼka}, and both may be linked to the Afar language's -ka meaning 'before' (Mahaffy, n.d., p. 29). As for *-kɔ, it has obvious ties to the morpheme {-kɔ} which marks both copulative case and sequential aspect.

7.11.2 Non-past tense adverbials

Dixon claims that languages divide neatly into the following two groups according to how a 'future' setting is handled grammatically (2012:7):

(292)   I Future is a tense, referring to a location in time.
        II Future is shown by modalities, within irrealis.

However, Ik does not lie exclusively in either of these two groups. In a near mirror-image of the three past tense clitics, Ik has a three-term non-past tense system that is expressed by free, adverb-like particles. But a non-past setting in Ik is also conveyed by the intentional modality suffix {-és-} (§7.7.3). So 'future' for Ik is a concept hinging both on tense adverbs and verbal morphology, a combination of Dixon's groups I and II.

The following table repeats Ik's three-term non-past tense system:

(293)   *Non-past tense adverbs*

	NF	FF	
Distended present (PRES)	ts'ɔɔ	ts'ɔɔ	soon
Removed (FUT2)	táa	táa	later today or tomorrow
Remote (FUT3)	fara	far	after tomorrow

These non-past adverbs, unlike the past-tense clitics, are not morphologically related to each other. The remote future adverb is sometimes given the form *faro/far°*, probably being reinterpreted as a time word that should take the instrumental case suffix {-ɔ} (see §6.3.3).

The first term in the non-past system is called 'distended present' because the adverb *ts'ɔɔ* can be used in both recently past and nearly future senses. In other words, *ts'ɔɔ* can refer to the present time distended slightly in the past and slightly into the future. For example, one hears both *atsíá=naa ts'ɔɔ* 'I just came' and *ats-és-í-a ts'ɔɔ* 'I will come just now'.

The following sentences offer a comparsion of the three non-past terms:

(294)   *Nkaƙesia ts'oo.*
    ŋƙaƙ-es-í-á   ts'ɔɔ
    eat-INT-1SG-REAL   PRES
    I will eat just now.

(295)   *Nkaƙesia taa.*
    ŋƙaƙ-es-í-á   táa
    eat-INT-1SG-REAL   FUT2
    I will eat later/next time.

(296)   *Nkaƙesia far.*
    ŋƙaƙ-es-í-á   far
    eat-INT-1SG-REAL   FUT3
    I will eat in the future.

A non-past tense adverb can occur pre-verbally in subordinate clauses like the one below where it is used with an irrealis impersonal passive verb:

(297)   *Naa fara ƙwaatetanie wicea,...*
    náa   fara   ƙwaat-ét-aní-ɛ   wicé-á
    CONJ   FUT3   bear-INCH-IPS-SIML   children-acc
    When children are born in the future,…

And unlike the past-tense clitics, the freely occuring non-past tense adverbials can precede or follow the negated verb in a negative clause, e.g.:

(298)   *Nta ts'oo ƙoi.*   *Nta ƙoii ts'oo.*
    ńt-á   ts'ɔɔ   ƙó-íⁱ   ńt-á   ƙó-íí   ts'ɔɔ
    not-REAL   PRES   go-1SG[IRR]   not-REAL   go-1SG[IRR]   PRES
    I'm not going now.   I'm not going now.

7.12 Epistemic qualification

Ik employs three methods for qualifying the certainty of knowledge expressed in a statement. Knowledge that is not completely certain, that is made on inference from observed evidence, may be expressed with a set of morphologically complex 'inferential' particles (§7.12.1). Knowledge gained counter-expectationally is marked at the clausal level through a special combination of verbal modality and nominal case marking (§7.12.2). And lastly, knowledge expressed as a way to confirm a state of affairs is marked by a special usage of temporal particles (§7.12.3). Quite unlike evidentiality in some other languages, these epistemic devices are not part of an obligatory inflectional system in Ik. They are simply an available means to qualify the status of one's knowledge communicated in a proposition.

7.12.1 Inferential

When Ik speakers make an inference about something based on any observable evidence, they may use an 'inferential' adverbial particle. Because the knowledge expressed is only inferred, it has a degree of uncertainty. This inferentiality can be translated in English with such phrases as 'it seems', 'it appears', 'X must have…, and 'apparently, …'.

The inferential adverbials—also called markers of 'uncertain past' (Heine & König 1996:80)—are made up of the conjunction-like particle *na* and the past-tense enclitics presented in (287) above (except for the removed past form which uses *-tsamʊ* instead). Both elements are clitics themselves, and so they fuse easily into one phonological word. So in addition to encoding inference, the inferential adverbials are conveniently tensed:

(299)   *Inferential adverbials*

	NF	FF	
Recent (PST1)	ná＝bee	ná＝batsᵉ	earlier today
Removed (PST2)	ná＝tsamʊ	ná＝tsam	yesterday
Remote (PST3)	ná＝noo	ná＝nokᵒ	before yesterday

The inferential adverbials may come before or after the main verb, with no significant difference in meaning, for example:

(300)   *Nabee ƙa.*   *Ƙaa nabats.*

        ná=bee   ƙa-∅   ƙa-a   ná=bats^e

        INFR=PST1 go-REAL   go-REAL INFR=PST1

        It seems she has gone.   She has gone, it seems.

7.12.2 Counter-expectational

Another way to qualify evidence-based knowledge is through a 'counter-expectional' construction. This syntactic construct consists of a main verb in the sequential aspect and the plural pronoun *ɗi-* as a peripheral argument in the instrumental case. Semantically, this construct can be formulated as: X has done Y/X *by these* (i.e. bits of evidence). Whereas the inferential particles admit a degree of uncertainty, the counter-expectational construction expresses reasonable certainty based on direct evidence. And the evidence gained contradicts what was originally expected. This can be translated along the lines of 'Oh, X really did Y' or 'X really is Y'.

(301)   *Ƙayuo ɗo.*

        ƙa-i-o   ɗ-ó

        go-3SG-SEQ ones-INS

        Oh, she really did go (Lit. 'And she goes, by those.').

The counter-expectational construction is in the process of being grammaticalized. This is shown by the fact that the peripheral argument *ɗó* 'by these' must unexpectedly come between the verb and any overt subject:

(302)   *Ɓets'etuo ɗo ŋam.*

        ɓéts'-ét-u-o   ɗ-ó   ŋám-∅

        white-INCH-3SG-SEQ ones-INS   sorghum-NOM

        The sorghum has begun to turn white (by all appearances).

7.12.3 Confirmational

The tensed conjunctions that are used to introduced temporal subordinate clauses (§9.6.1) are also used in a 'confirmational' construction. This construction consists of a tensed conjunction (*náa, sɪna,* or *noo*) followed by a verb in the realis modality. Semantically, the construction serves to confirm a state of affairs by placing extra emphasis on the predication. It can be translated along the lines of 'Yes, X did Y.' Compare the following regularly tensed sentences and their their confirmational counterparts:

(303)   *Ƙaa nak.*   *Naa ƙaa.*

        ƙa-a = nák   náa   ƙa-a

        go-REAL = PST1   CONF.PST1   go-REAL

        She went.   Yes, she did go.

(304)   *Nƙaƙima bats.*   *Sɪna nƙaƙima.*

        ŋƙáƙ-ím-a = bats   sɪna   ŋƙáƙ-ím-a

        eat-1PL.EXC-REAL = PST2   CONF.PST2   eat-1PL.EXC-REAL

        We ate.   Yes, we did eat.

(305)   *Todia nok.*   *Noo todia.*

        tód-i-a = nok   noo   tód-i-a

        speak-1SG-REAL = PST3   CONF.PST3   speak-1SG-REAL

        I spoke (to him).   Yes, I did speak (to so-and-so).

The confirmational construction is morphologically interrogative, in that the final vowel is voiced in a clause-final position. For example, in the indicative mood, one would expect the phrase in (305) 'Yes, I did speak (to so-and-so)' to surface as *noo tódi* in Ik, with the realis {-a} devoiced or deleted. Perhaps at a pragmatic level, the structure is functioning as a rhetorical question whose implied response is 'Yes, of course you spoke'.

8 Other Word Classes

In addition to nouns and verbs—Ik's large open word classes—the language also has several other, closed word classes. These include quantifiers (§8.1), demonstratives (§8.2.), adverbs (§8.3), conjunctions (§8.4), prepositions (§8.5), interjections (§8.6), ideophones (§8.7), and infantile imperatives (§8.8). Time expressions, while technically nouns, are discussed as a lexical subset in §8.9. And though greetings do not make up a separate class in and of themselves, they are used in a ritualized way that transcends whatever word classes they consist of. For that reason, they are discussed in §8.10.

8.1 Quantifiers

One of the ways the grammatical number of a noun phrase is encoded is through quantifiers. Ik has both non-numeral and numeral quantifiers. With a few exceptions, Ik quantifiers are verbs in the surface structure. So, like the Adjectival verbs described in the last chapter, quantifier verbs might not be analyzed as a separate word class. However, since some quantifiers are not verbs and others are becoming less verb-like, they are all treated here under one general category. The verbal nature of quantifiers is shown in the following four examples where they take a variety of verbal suffixes such as subject-agreement, modal, and aspectual markers:

(1)   kom-ím-∅
        many-1PL.EXC-REAL
        We are many.

(2)   kom-uƙot-ím-á-kᵃ
        many-COMP-1PL.EXC-REAL-PRF
        We have become many.

(3)   leɓets-át-ᵃ
        two-3PL-REAL
        They are two.

(4)   leɓets-i-áti-kᵉ
        two-PLUR-3PL-SIML
        ...they (being) two by two.

In these four clauses, the quantifier fills the syntactic slot for an intransitive verb. Quantifiers can also follow the noun they modify in a relative clause (RC). Examples (5)-(6) illustrate the non-numeral quantifiers *kom-* 'be many' and *ƙwaɗ-* 'be few' acting as the verb in relative clauses:

(5) *Kutese hakwesie daŋee ni kom.*
     kʊt-ɛsɛ   hakw-ésí-e   dáŋé-e = [ni   kom-∅]ᴿᶜ
     say-SPS   gather-INF-DAT   white.ant(s)-GEN = REL.PL   many-REAL
     And it was decided to gather many white ants.

(6) kots-et-í-á = naa   ɲékiloró-ik-a = [ni   ƙwaɗ-∅]ᴿᶜ
     fetch-VEN-1SG-REAL PST1   jerrycan-PL-NOM = REL.PL   few-REAL
     I fetched a few jerrycans.

Quantifiers in relative clauses may also appear without a relative pronoun:

(7) *Hoese oŋora odoiciko leɓets.*
     ho-ese   oŋor-a   ódo-icík-ó   leɓetsᵉ
     cut-SPS   elephant(s)-NOM   day-PL-INS   two
     And the elephants are cut up over two days.

(8) *Hyeyia kiɗa ƙwaɗ.*
     ɦye-í-á   ki = ɗ-a   ƙwaɗᵉ
     know-1SG-REAL   DIST = ones-NOM   few
     I know a few (e.g. words of Ik).

Not only is there no relative pronouns in (7) and (8), but the quantifiers exhibit no verbal morphology at all. In fact, the words for numbers 1-5, as well as the non-numeral quantifiers *ƙwaɗe* 'few' and *koma* 'many', can function as full verbs or adjective-like words without verbal morphology. In the their non-verbal function, the numbers 2-5 and *ƙwaɗ* end in the vowel /e/, while the number 1 and *kom* end in /a/:

(9)   *Quantifiers with some non-verbal properties*

Numeral		Non-numeral	
kɔna	'one'	ƙwaɗe	'few'
leɓetse	'two'	koma	'many'
aɗe	'three'		
ts'agúsé	'four'		
tude	'five'		

The unverblikeness seen among the quantifiers in (9) indicates one of two things: Either a) numbers used to be a separate word class and then became more verb-like, or b) they used to be full verbs are gradually losing verb-like characteristics and becoming more of a separate word class.

8.1.1 Non-numeral quantifiers

Ik non-numeral quantifiers are limited to two lexical verbs (also as adjective-like particles) and three invariable adjective-like particles:

(10)   *Ik non-numeral quantifiers*

kom-oni-	'to be many'
ƙwaɗ-oni-	'to be few'
ˈgáí	'both'
muɲu	'all, whole'
tsíɗi	'all, whole'

The next few sentences provide some examples from various contexts:

(11)   *Atsituo komitikee?*

ats-itu-o   <u>kom</u>-ítí-keé
come-2PL-SEQ   many-2PL-SIML
Then you come when there are many of you, ok?

(12) *Kwaɗuƙotaa inwa kiɟoo na.*

    ƙwaɗ-uƙot-á-á   ínw-á   kíɟó-o=na

    few-COMP-REAL-PRF   animals-NOM   land-ABL=DEM.SG

    Animals have become few in this land.

(13) *J'eɟitoo bita gai.*

    ɟɛɟ-ɪtɔ-ɔ   bit-a   ꜜgáí

    stay-2PL-SEQ   you.PL-NOM   both

    And both of you stay.

(14) *Ats'ese ema naruetikoo muɲ.*

    áts'-ɛ́sɛ em-a   narúét-iko-o   muɲ

    eat-SPS meat-NOM   village-PL-ABL   all

    And meat was eaten in all the villages.

(15) *Ɲakuɟuo ɦyea menaa ni tsiɗ.*

    ɲakuɟí-ó   ɦye-a   mɛná-á=ni   tsíɗ

    god-COP   know-REAL issues-ACC=DEM.PL all

    It's God who knows all these issues.

8.1.2 Numeral quantifiers

Ik has a quinary or base-5 counting system: There are lexical number words for the numbers 1-5, and then numbers 6-9 are formed by saying 'five and one', 'five and two', etc. The word *kɔní-* 'one' functions as noun elsewhere in the language, and the number 10 is the noun *to(o)míní-*, related to *tomon* 'ten' which has widespread areal parallels in both Afroasiatic and Nilo-Saharan. Other etymological hints are presented with numbers 1-5 in (16).

As already noted, number words can function as verbs with verbal morphology or as a distinct adjective-like word class in which numbers 2-5 end in the vowel /e/. Both types are given here:

(16)   *Ik numbers 1-5*

#	Verb	Numeral	Some areal parallels
1	kɔn-	kɔna	Lango (WNil) *kɛ́n* 'alone'
2	leɓets-	leɓetse	Saho (LowCush) *lamma* 'two'
3	aɗ-	aɗe	Lwo (WNil) *adek* 'three'
			Saho (LowCush) *adooxa* 'three'
4	ts'agús-	ts'agúsé	—
5	tud-	tude	Shabo (Nilo-Saharan?) *tuula* 'five'

Number 6-9 are formed with the quinary base 5 *tud-/tude* plus the singular (for 6) and plural (for 7-9) pronouns *kɪ=ɗɪ* (sg.) and *ki=ɗi* (pl.):

(17)   *Ik numbers 6-9*

6	tude ńda kɪ=ɗɪ kɔn
7	tude ńda ki=ɗi léɓets^e
8	tude ńda ki=ɗi aɗ^e
9	tude ńda ki=ɗi ts'agús

When something is being counted in sequence, the numbers 1-9 can be treated as verbs taking the sequential suffixes {-kɔ} (sg.) and {-ɪnɪ} (pl.):

(18)   *Ik verbal counting*

kɔnʊ-kˀ	'And it is one.'
leɓets-in	'And they are two.'
aɗ-in	'And they are three.'
ts'agus-in	'And they are four.'
tud-in	'And they are five.'
tud-ini ńda kɪɗɪ kɔn	'And they are six.'
tud-ini ńda kiɗi léɓets^e	'And they are seven.'
tud-ini ńda kiɗi aɗ^e	'And they are eight.'
tud-ini ńda kiɗi ts'agús	'And they are nine.'

The numbers 10, 100, 1000, 100,000, 1,000,000, and 1,000,000,000 are all nouns. The larger denominations—hundred thousand, million, billion—have names borrowed from English as well as indigenous labels:

(19) *Numbers 10-1,000,000,000*

#	Borrowed	Indigenous	Meaning/Source
10	to(o)míní-		(cf. Trk. *tomon*)
100	ŋamíáɪ-		(<Swahili *mia*)
1,000	álifu-		(<Swahili *elfu*)
100,000	álifika ŋamíá kɔn	kɔrɔ́ká kɔn	'one finger'
1,000,000	ɲémílioni-	dakwa kɔn	'one tree'
1,000,000,000	ɲéɓílioni-	ɗola kɔn	'one old hive'

Multiples of ten are formed with the nouns *to(o)míní-* 'ten' and *ekú-* 'eye':

(20) *Multiples of ten*

20	tomín-ékw-a leɓetsᵉ	'ten-eye two'
30	tomín-ékw-a aɗᵉ	'ten-eye three'
40	tomín-ékw-a ts'agús	'ten-eye four'
50	tomín-ékw-a túdᵉ	'ten-eye five'
60	tomín-ékw-a túde ńda kɪɗɪ kɔn	'ten-eye six'
70	tomín-ékw-a túde ńda kiɗi léɓetsᵉ	'ten-eye seven'
80	tomín-ékw-a túde ńda kiɗi aɗᵉ	'ten-eye eight'
90	tomín-ékw-a túde ńda kiɗi ts'agús	'ten-eye nine'

The numbers between multiples of 10 can be formed in two ways. Both ways start with the relevant multiple of 10 (20, 50, 70, etc.) followed by the connective *ńda* 'and'. For numbers like 11, 21, 31, etc., this connective can be followed by either *kɪɗɪ kɔn* 'and that one, one' or *nɛ́ɓɛɛ kɔn*. The precise meaning of *nɛ́ɓɛɛ-* is not currently known, thought a possible connection is with the word *nébu-* 'body'. For numbers like 12/22, 13/23, and above, the connective *ńda* can be followed either by *kiɗi* 'the ones' or by *jɪr-mɪ* 'its remainders' and the appropriate number word. The word *jɪr-mɪ* consists of

the noun *jɪrɪ-* 'behind' and the possessive plurative {-ɪnɪ-}, not the 3PL sequential aspect marker {-ɪnɪ} as supposed by Heine & König (1996:42):

(21) *Numbers 11-19*

11	tomíní ńda kɪɗɪ/nébɛɛ kɔn
12	tomíní ńda kiɗi/ɟɪrɪnɪ léɓetsᵉ
13	tomíní ńda kiɗi/ɟɪrɪnɪ aɗᵉ
14	tomíní ńda kiɗi/ɟɪrɪnɪ ts'agús
15	tomíní ńda kiɗi/ɟɪrɪnɪ túdᵉ
16	tomíní ńda kiɗi/ɟɪrɪnɪ túde ńda kɪɗɪ kɔn
17	tomíní ńda kiɗi/ɟɪrɪnɪ túde ńda kiɗi léɓetsᵉ
18	tomíní ńda kiɗi/ɟɪrɪnɪ túde ńda kiɗi aɗᵉ
19	tomíní ńda kiɗi/ɟɪrɪnɪ túde ńda kiɗi ts'agús

Ik counting can get quite complicated, as the following numbers show:

(22) *Complicated Ik counting*

66	tomínékwa túde ńda kɪɗɪ kɔn ńda ɟɪrɪnɪ túd ńda kɪɗɪ kɔn
999,999	álifika ŋamíá tude ńda kiɗì ts'agúsé ńda tomínéku tude ńda kiɗì ts'agúsé ńda ɟɪrɪnɪ tude ńda kiɗì ts'agúsé ńda ŋamíá tude ńda kiɗì ts'agúsé ńda tomínéku tude ńda kiɗì ts'agúsé ńda ɟɪrɪnɪ tude ńda kiɗì ts'agús

Ik ordinal numbers are formed with relative pronouns or demonstrative pronouns plus the relevant number verb in the infinitive form, as in:

(23) *Ik ordinal numbers 1-5*

1ˢᵗ	na/ɗa kɔ́n-ɔnɪ
2ⁿᵈ	na/ɗa leɓéts-óni
3ʳᵈ	na/ɗa áɗ-oni
4ᵗʰ	na/ɗa ts'agús-óni
5ᵗʰ	na/ɗa túd-oni

8.2 Demonstratives

Demonstratives are words that point to or 'demonstrate' nouns in the discourse (and real entities extralinguistically). The demonstrative word class in Ik is made up of eleven nominal demonstratives, three locative adverbial demonstratives, and four special anaphoric demonstratives: two nominal and two locative adverbial ones. Five of the nominal demonstratives have spatial reference, while six others have temporal reference. The tensed demonstratives are based on the singular and plural proximal spatial demonstratives. Both spatial and temporal nominal demonstratives follow their referent and reflect the grammatical number of their referent(s). Ik nominal demonstratives have a deictic function of specifying the relative spatial location of a referent and the syntactic function of modifying an NP in any core or peripheral argument.

8.2.1 Spatial nominal demonstratives

In its spatial demonstrative system, Ik exhibits a three-term distance distinction in the singular and a two-term distinction in the plural. The singular spatial demonstratives are recessively [-ATR], while the plural ones are dominantly [+ATR], post-lexically harmonizing only one preceding syllable. All the spatial nominal demonstratives are analyzed as enclitics based on their forming a phonological word with vowel harmony.

(24)   *Ik spatial demonstratives*

	Singular	Plural
Proximal	=na	=ni
Medial	=nɛ	
Distal	=kɛ	=ki

For the singular demonstratives in (23), Proximal refers to distances relatively near to the speaker, medial to a distance slightly farther from the speaker, and distal to a distance relatively far from the speaker. The distinction between proximal and medial is collapsed among the plural

demonstratives: =*ni* covers any non-distal location from the speaker and is referred to simply as proximal in opposition to distal.

The Ik spatial nominal demonstratives follow the argument they modify. They can occur with nouns and pronouns but cannot stand alone as an NP (except possibly where the NP head is pragmatically implied). Cases of demonstratives with personal pronouns are restricted to a vocative-type situations like the one shown in (25). The sentence in (26) is shows how a demonstrative cannot stand alone as an NP, in this case the complement of a copula. The independent usage in (26) is only grammatical if the implicit referent is understood. For example, it could be uttered along with a pointing gesture to clarify which entity was referred to by another speaker. But the usual way of referring pronominally to a 3-person referent is with the demonstrative pronouns *dɪ* (sg.) and *di* (pl.).

(25) *awa na*   *Bia na!*
      aw-a = na   bi-a = na
      home-NOM = DEM.SG.PROX   you.SG-NOM = DEM.SG.PROX
      this home (here)   You! (lit. 'This you (here)')

(26) ***Mita na.*   *Na?*
      **mɪt-a   na   na
      **be-REAL   DEM.SG.PROX   DEM.SG.PROX
      **It's this.   This?

8.2.2 Temporal nominal demonstratives

Ik also has temporal or 'tensed' nominal demonstrative clitics. They are based on the spatial demonstratives but not on an analogy of time as distance. Rather, the proximal forms in (24)—*na* (sg.) and *ni* (pl.)—are used as the non-past form and the base for the three-term past demonstratives. The singular remote past demonstrative =*nɔɔ* is recessive, while all four plural temporal demonstratives are dominantly [+ATR] post-lexically:

(27)   *Temporal nominal demonstratives*

	Singular		Plural	
	Non-final	Final	Non-final	Final
Non-Past	=na	=na (=n)	=ni	=ni (=n)
Recent Past	=náa	=nákᵃ	=níi	=níkⁱ
Removed Past	=sɪna	=sɪn	=sini	=sin
Remote Past	=nɔɔ	=nɔkᵓ	=nuu	=nukᵘ

The non-past demonstratives in their final forms can optionally lose their final (and sole) vowel, firmly attaching them to the preceding noun. As is discernable from (27), =*na* for singular and =*ni* for plural form the basis for the other tensed demonstratives. Although it seems they were bimorphemic historically, these forms will be henceforth treated as single morphemes. The frozen suffix *-ˊka* seen on the singular recent past demonstrative in (27) is related to the present perfect morpheme formally and semantically. The frozen suffix *-kɔ* attached to the singular remote past demonstrative is likewise linkable to to the synchronic copulative case and sequential aspect morpheme {-kɔ}. A clue to the origin of the frozen prefix *sɪ/si-* in the removed past members of the paradigm in (27) comes from the South Omotic language Dime's 'feminine demonstrative' *siná* that contains the prefix *si-* denoting 'nearness' (Mulugeta 2008:72-73).

In the remote past forms for both singular and plural, vowel assimilation occurs. The combination *na+(k)ɔ* leads to *nɔ-(k)ɔ* in the singular, and the combination *ni+(k)u* leads to *nu-(k)u* in the plural.

The Ik temporal demonstratives are identical to both the relative pronouns (which are tensed; §5.6) and the temporal subordinating conjunctions (§8.4.1). It seems that historically they were all part of one system, though synchronically they must be treated as separate. The relationship between these identical forms in disparate systems can be represented as follows:

(28)   *Interrelationship of na-(k)a in three grammatical systems*

Demonstrative	ámá = nak^a	'that person (earlier)'
Relative pronoun	ámá = naa…	'the person who…(earlier)'
Subordinating CONJ	náa ámáa…	'When the person…(earlier)'

Heine & Kuteva describe two grammaticalization pathways that could apply to (28): 1) demonstrative > relativizer, and 2) relativizer > subordinator (2007:89, 95). In light of this, it seems likely that the Ik tensed relative pronouns developed out of the tensed demonstratives, and that the tensed subordinating conjunctions developed from the tensed relative pronouns.

8.2.3 Anaphoric demonstratives

The anaphoric demonstrative clitics =ᵗ*déé* (sg.) and =ᵗ*díí* (pl.) are used to refer to any bit of information already identified at least once in a discourse. The singular form is recessive and can occur as =ᵗ*déé* after a [+ATR] morpheme. The plural form is dominantly [+ATR], capable of harmonizing the preceding phonetic syllable post-lexically (§3.1.7). The downstep (ᵗ) is posited to account for the following two tonal effects caused by the depressor consonant /d/ (see §3.2.3): 1) The lowering of the anaphoric demonstratives' own pitch to mid (see 29) and 2) the lowering of pitch ceiling that occurs after them (see 30). Consider the following examples:

(29)   *Takanetesa kwetoo dee.*

takan-et-és-á   kwɛtɔ́-ɔ́ = ᵗdɛ́ɛ́ $\left[- - - ^{- -} - ^{-} \diagdown -- \right]$

appear-VEN-INT-REAL   hand-ABL = ANPH.SG

It will appear on that side (lit. 'hand').

(30)   *Dukwee ima dee awak.*

d-uƙo-e   ámá = ᵗdéé   awá-k^e $\left[- - ^{-} \diagdown -- _{-} - \right]$

take-AND-IMP.SG person[OBL] = ANPH.SG home-DAT

Take that person home.

The information referenced by the anaphoric demonstratives is either a) encoded at least once before in the discourse or b) inferred pragmatically or extralinguistically from the physical or cognitive environment shared between the speech-act participants. That is, the anaphorics refer to discursively and/or pragmatically old information. For example, if someone says *ƙeésía awéé ꞌdéé bie* 'I'm going to that home of yours', it can mean either that a) the house was already mentioned at least once in the conversation or b) that the speaker believes that the particular home is a topic found in the immediate cognitive environments of both speech-act participants.

Any old information, whether noun phrases or whole clauses, can be anaphorically referenced by these demonstratives. In (31) below, the core argument *ƙyɔ* 'cow', underlined in the first main clause, is referred to anaphorically three clauses (two lines) later (where it is underlined again):

(31)   *Na koto ts'edoo nee, ƙoyaa*
      na=kótó   ts'ɛ́ꞌdɔ́-ɔ́=nɛɛ́   ƙó-ɪa-a
      CONJ=then there-ABL=DEM.SG.MED go-1SG-SEQ

      dzigwetiaa ƙyo.
      dzígw-et-ia-a   {ƙyɔ-∅}
      buy-VEN-1SG-SEQ   cow-NOM

      Koyaa ceyaa ntsiroɓak.
      ƙó-ɪa-a   cɛ-ɪa-a   ntsí-róɓa-kᵉ
      go-1SG-SEQ kill-1SG-SEQ she-people-DAT

      Ceyaa ƙyoa dee.
      cɛ-ɪa-a   {ƙyɔ-a=ꞌdéé}
      kill-1SG-SEQ cow-NOM=ANPH.SG

      So then from there, I went and bought a cow. And I went and killed it for her people. I killed *that cow*.

By contrast, in (32), the anaphoric noun phrase *emuta ꞌdéé* 'that story' refers back to two full clauses each introduced by *naítá* (and underlined), that are both functioning as complements of the imperative verb *tóde* 'tell':

(32)　　*Tode*
　　　　tód-e
　　　　tell-IMP.SG

　　　　naita noo duḳotanee bia ngok,
　　　　naítá=noo　　　　　　d-uḳot-an-é=e　　　bi-a　　　ŋgó-kᵉ
　　　　way[OBL]=REL.SG.PST3 take-AND-IPS-REAL=DP you.SG-ACC we.EXC-DAT

　　　　naita noo tataeakwaa sits'ee bia
　　　　naít-á=noo　　　　　　táta-ęakwa-a　　síts'-é=e　　　　bi-a
　　　　way[OBL]=REL.SG.PST3　aunt-man-ACC　　engage-REAL=DP you.SG-ACC

　　　　paka iyudukwee ts'oo ti.
　　　　páka　i-idu-kó=e　　　ts'ɔɔ　tí
　　　　until　be-2SG-SEQ=DP　now　　ADV

　　　　Emuta dee ꞌjik!
　　　　{emut-a=ꞌdéé}　　　　　ʝík
　　　　story-NOM=ANPH.SG　　　ADV

　　　　Tell a) how you were taken to us, b) how my uncle engaged you until from then you are here right now—that whole story!

Lastly, Ik nominal demonstratives—spatial, temporal, and anaphoric—are not mutually exclusive. They can occur singly or in combination with one or two other types. This is possible because they all have different functions, indicating the location, place in time, and discourse topicality, respectively, of their referents. Whichever types coincide in one noun phrase, the order in which they occur is: NP.HEAD=(anaphoric)=(spatial/temporal)=(spatial):

(33) *Coocurring nominal demonstratives*

ámá = ˈdéé	'that person (already mentioned)'
ámá = nakᵃ	'that person (from earlier)'
ámá = na	'this person'
ámá = ˈdéé = naa	'that person (mentioned, from earlier)'
ámá = ˈdéé = na	'this person (already mentioned)'
ámá = ˈdéé = náa = ne	'that person (there, mentioned, earlier)'
ámá = ke = náa = ke	'that person (over there, from earlier)'

8.2.4 Locative adverbial demonstratives

In addition to nominal demonstratives that point to objects, and anaphoric demonstratives that point to known information, Ik also has several locative adverbial demonstratives that point to a place. These also include deictics and anaphorics. The deictics comprise a three-term system distinguishing proximal, medial, and distal distances, just like nominal demonstratives. The anaphorics include two demonstratives that refer to a place or metaphorically to a time already known from the discourse context.

Even though they adverbially specify a location or direction, the Ik locative adverbial demonstratives exhibit the structure and behavior of nouns. That is, they can be inflected for all eight nominal cases and can be modified by deictic demonstratives as well as relative clauses. When they are modified by relative clauses, they fulfill the language's need for locative adverbial clauses. For example in (34), the locative demonstrative *naí-* acts as a peripheral argument (encoding a Destination role) of the verb *ƙa-* 'go'. It is then modified by a relative clause (RC) introduced by the relative pronoun = *noo*. The whole construction acts as a locative adverbial clause (LOC ADV):

(34) *Kaa nayee noo itsyaketad.*

ƙa-a   [naí-é = [noo   itsyak-et-á = dᵉ]ᵣₑₗ]ₗₒ𝒸 ₐ𝒹ᵥ

go-REAL where-DAT = REL.SG.PST3 begin-INCH-REAL = DP

She's going to where she started.

The whole system of the first set of Ik locative demonstratives is apparently based on the noun *aí-* 'location, side'. This noun, combined with the nominal spatial demonstratives, produces a system of locative reference that shows various degrees of grammaticalization and phonological erosion. Because the noun *aí-* 'location, side' is at the heart of this system, in principle all members of the paradigm should inflect for all eight Ik nominal cases. In reality, though, some of the case suffixes have been lexicalized as part of the noun base and substantially eroded, resulting in case conflation. (35) shows the synchronic system of locative demonstratives, their hypothetical diachronic development being discussed below:

(35)   *Deictic locative adverbial demonstratives (Set 1)*

Case	Proximal	Medial	Distal
OBL	naí (=na)	naí (=ne)	kɔ́ɔ́ (=kɛ)
NOM	nay-á (=na)	nay-á (=ne)	kɔ́ɔ́ (=kɛ)
INS	nó-ó (=na)	nó-ó (=ne)	kɔ́ɔ́ (=kɛ)
ABL	naí-ó (=na)	naí-ó (=ne)	kɔ́ɔ́ (=kɛ)
GEN	naí-é (=na)	naí-é (=ne)	kɔ́ɔ́ (=kɛ)
	néé (=na)	néé (=ne)	
ACC	naí-á (=na)	naí-á (=ne)	kɔ́ɔ́ (=kɛ)
DAT	naí-é (=na)	naí-é (=ne)	kɔ́ɔ́ (=kɛ)
	néé (=na)	néé (=ne)	
COP	naí-ó (=na)	naí-ó (=ne)	kɔ́ɔ́ (=kɛ)

First of all, the proximal and medial forms in (35) are made up of the noun *aí-* plus the proximal demonstrative *na=* as a proclitic. The same demonstrative is then an optional enclitic for the proximal forms, while the medial demonstrative *=ne* is an optional enclitic for the medial forms. The proclitic *na=* has apparently undergone phonological reduction. Then, once *na=* and *aí-* were conflated into *naí-*, it became subject to vowel assimilation. In the instrumental case, marked by the suffix {-ɔ}, the resulting form is *nóó*. This vowel assimilation is expected since the instrumental case deletes the stem-final vowel. However, in the genitive and

dative cases, both of which are marked with the suffix {-(k)ɛ}, the resulting form is *néé*. This form involves further phonological reduction:

(36) Instrumental: na= +aí-+-ɔ → nóó
       Genitive/dative: na= +aí-+-ɛ → naí-é   → néé

As for the distal locative demonstrative, it appears to have undergone grammaticalization and phonological reduction to the point that it has the same form in all nominal cases: *kɔ́ɔ́=(kɛ)*. In years past, the distal locative demonstrative comprised a regular part of the paradigm in which the noun *aí-* was flanked on both sides by the distal nominal demonstrative *kɛ*, as in *ke=aí-é=ke*, for example, in the genitive and dative cases. At some point, the preceding *ke=* merged with the base noun, and at a later point, the instrumental case form *kɔ́-ɔ́* was substituted for all the cases. Since it has undergone phonological reduction and morphological conflation to this degree, the form *kɔ́ɔ́* is analyzed here as a single morpheme synchronically.

Ik also has plural locative adverbial demonstratives: *nií-* for proximal and medial and *kií-* for distal. If the diachronic analysis of the forms in (35) is correct, then it would seem these plural forms were created by analogy with the demonstratives *na* (sg.) ~ *ni* (pl.) for proximal/medial and *kɛ* (sg.) ~ *ki* (pl.) for distal. These plural locative demonstratives pattern as follows:

(37) *Plural deictic locative adverbial demonstratives*

Case	Proximal/medial	Distal
OBL	nií (=ni)	kií (=ki)
NOM	ni-á (=ni)	ki-á (=ki)
INS	ni-ó (=ni)	ki-ó (=ki)
ABL	nió-ó (=ni)	kió-ó (=ki)
GEN	nií-é (=ni)	kií-é (=ki)
ACC	nií-á (=ni)	kií-á (=ki)
DAT	nií-é (=ni)	kií-é (=ki)
COP	nió-ó (=ni)	kió-ó (=ki)

Another set of locative adverbial demonstratives is based on the noun ʃáná- 'direction, location'. In this function, ʃáná- is preceded by a proclitic demonstrative and followed optionally by another demonstrative. These locative demonstratives can be proximal or distal, as shown in (38). In the distal column, the /e/ in the distal demonstrative *ke* has been shortened to /i/ in *ki=* as a result of it being in an unstressed position:

(38)   *Deictic locative adverbial demonstratives (Set 2)*

Case	Proximal	Distal
OBL	ná = ʃána (= na)	kí = ʃána (= ke)
NOM	ná = ʃán-a (= na)	kí = ʃán-a (= ke)
INS	ná = ʃán-o (= na)	kí = ʃán-o (= ke)
ABL	ná = ʃáno-o (= na)	kí = ʃáno-o (= ke)
GEN	ná = ʃáne-e (= na)	kí = ʃáne-e (= ke)
ACC	ná = ʃána-a (= na)	kí = ʃána-a (= ke)
DAT	ná = ʃáne-e (= na)	kí = ʃáne-e (= ke)
COP	ná = ʃáno-o (= na)	kí = ʃáno-o (= ke)

The noun ʃáná- is also used to build compounds that signify geographical locations or directions. These may correspond to their absolute navigational referents, but they are often skewed somewhat by local topography:

(39)   *Navigational terms*

East	Fetí-éku-ʃaná-	'sun-eye-direction'
West	Tábai-ʃaná-	'?-direction'
North	Gwário-ʃaná	'top-direction'
South	Gígiro-ʃaná-	'down-direction'

Finally, the words *nédi-* (medial) and *kédi-* (distal) also function as locative adverbial demonstratives. Because *kédi-* has the lexical meaning of 'way, means' and *nédi-* has none such, it suspected that *nédi-* was introduced by analogy with the deictic demonstratives *ne* (medial) and *ke* (distal). As full nouns, they make up a fully regular case paradigm as shown in (40):

(40)   *Deictic locatives (Set 3)*

Case	Medial	Distal
OBL	nédi (=ne)	kédi (=ke)
NOM	néd-a (=ne)	kéd-a (=ke)
INS	néd-o (=ne)	kéd-o (=ke)
ABL	nédi-o (=ne)	kédi-o (=ke)
GEN	nédi-e (=ne)	kédi-e (=ke)
ACC	nédi-a (=ne)	kédi-a (=ke)
DAT	nédi-e (=ne)	kédi-e (=ke)
COP	nédi-o (=ne)	kédi-o (=ke)

Besides the three sets of deictic locative demonstratives outlined above, Ik also has two anaphoric locative demonstratives: *tʊmɛˈdɛ́-* and *ts'ɛ́ˈdɛ́-*. The downstep posited for both forms is based on the fact that the H tone after the depressor consonant /d/ is lowered to mid pitch (actually a low-to-mid rise phonetically). As mentioned in §3.2.3, this is typical tonal behavior whenever a depressor consonant is followed or flanked by H tones.

(41)   *Anaphoric locative demonstratives*

OBL	tʊmɛˈdɛ́	ts'ɛ́ˈdɛ́
NOM	tʊmɛd-a	ts'ɛd-a
INS	tʊmɛd-ɔ	ts'ɛd-ɔ
ABL	tʊmɛˈdɔ́-ɔ́	ts'ɛ́ˈdɔ́-ɔ́
GEN	tʊmɛˈdɛ́-ɛ́	ts'ɛ́ˈdɛ́-ɛ́
ACC	tʊmɛˈdɛ́-á	ts'ɛ́ˈdɛ́-á
DAT	tʊmɛˈdɛ́-ɛ́	ts'ɛ́ˈdɛ́-ɛ́
COP	tʊmɛˈdɔ́-ɔ́	ts'ɛ́ˈdɔ́-ɔ́

The fact that both anaphoric locative demonstratives contain the segment /d/ suggests that they are linked formally as well as functionally with the anaphoric nominal demonstrative =*dˈɛ́ɛ́* described above (as well as the singular possessive suffix -*ɛdɛ-*). The demonstrative *ts'ɛ́ˈdɛ́-* has two

frequently encountered allomorphs varying in the first segment: *ɟɛ́ꞌdɛ́-* and *ƙɛ́ꞌdɛ́-* and. This type of glottalic allophony is described back in §2.3.3.

The two anaphoric locative demonstratives are close in meaning and function in that they both refere anaphorically to a previously mentioned place, whether near or far away. However, though *tʊmɛ́ꞌdɛ́-* can refer only to physical locations, *ts'ɛ́ꞌdɛ́-* can also refer metaphorically to circumstantial and even temporal 'locations', giving it a slightly broader usage.

In (42) below, *tʊmɛ́ꞌdɛ́-* is used twice to refer back to the location 'Usake', marked with the dative case. Note the different case endings on the demonstrative according to which case the clause's syntax requires:

(42)   *Kayuo saa ɟii Usakeek.*
   ƙa-i-o   sa-a=ɟɪɪ   {usakee-kᵉ}
   go-3SG-SEQ others-NOM=also Usake-DAT

   Pelemoo saa tʊmedoo,
   pɛl-ɛ́m-ɔ́-ɔ   sa-a   {tʊmɛ́ꞌdɔ́-ɔ́}
   appear-MID-3SG-SEQ others-NOM ANPH.LOC-ABL

   ƙayukwee bobaina ɟii tʊmedee.
   ƙa-i-kó=e   bobá-ín-á=ɟɪɪ   {tʊmɛ́ꞌdɛ́-ɛ́}
   go-3SG-SEQ=DP grandfather-POSS.PL-NOM=also ANPH.LOC-DAT

   Others also went *to Usake*. Others came out *from there*. (My) grandparents also went *there*.

And in (43) below, *ts'ɛ́ꞌdɛ́-* is also used to refer to the location 'Moroto':

(43)   *Na itayee Morotoa,*
   na=ɪta-ɪ-ɛ   {moroto-á}
   CONJ=reach-3SG-SIML moroto-ACC

ɪɓamʊkotoo roɓa ts'edoo.

ɪɓám-ʊ́ƙɔt-ɔ-ɔ	roɓ-a	{ts'ɛ́ˈdɔ́-ɔ́}
free-COMP-3SG-SEQ	people-NOM	ANPH.LOC-ABL

When he reached *Moroto*, people became free *from there*.

(44), on the other hand, is an example of *ts'ɛ́ˈdɛ́-* used to refer to a set of temporal circumstances, in this case how the weather affected agriculture:

(44) *Tokobeese koto eɗa dii,*

tɔkɔ́b-ɛ-ɛsɛ=kɔ́tɔ́	eɗ-a=ˈdíí
dig-INCH-SPS=then	grain-NOM=ANPH.PL

  itetʊo koto didia ɗita noo kowee naɓo.

it-ét-u-o=koto	didi-a	ɗɪ̆tá=noo	kɔwɛ́-ɛ́	naɓó
come-VEN-3SG-SEQ=then	rain-NOM	like=PST3	old-REAL-GEN	again

  Maraŋkoo, gaanukoo,

maráŋ-ú-ko=o	gaan-u-kó=o
good-3SG-SEQ=DP	bad-3SG-SEQ=DP

  ƙama noo koto mena ts'edee.

ƙám-á=noo=kótó	mɛn-a	ts'ɛ́ˈdɛ́-ɛ́
like-reALPST3=then	issues-NOM	ANPH.LOC-GEN

Then that grain started getting farmed, and the rain came back again like it used to long ago. And then from there it was good, and then from there it was bad…So that's how things were *at the time*.

8.3   Adverbs

Ik has a small, closed class of words that can be called 'adverbs' on the basis that they are mostly monomorphemic and can modify whole clauses. Some adverbs convey the manner of an action, while others relate the epistemic attitude of the speaker. Other still defy any semantic characterization.

The Ik manner adverbs include the following:

(45)   *Ik manner adverbs*

ɗɛmʊsʊ	'quickly'	(also *ɗamʊsʊ*)
híɨ̢jɔ	'slowly, carefully'	
ɟíkí	'totally, really'	
ɟíiki	'always'	
kɔ́ntíákᵉ	'straightaway'	(cf. *kɔní-* 'one')
mʊka	'completely, forever'	(also a noun *mʊka-*
páka	'until, indefinitely'	(fr. Swahili *mpaka*)
zuku	'very, especially'	(also in Nyang'í)

A few of the adverbs in (45) undergo the deletion of their final consonant segment in clause-medial environments. For example, *ɗɛmʊsʊ* 'quickly' may be pronounced as *ɗɛmʊʊ* and *kɔ́ntíákᵉ* 'straightaway' as *kɔ́ntíéɛ́*.

Other adverbs relate the epistemic attitude of the speaker, for example:

(46)   *Ik epistemic adverbs*

=ɟá	'just, then'	(an enclitic)
tsábo	'apparently'	
tsamʊ	'exactly, of course'	(also a noun *tsamʊ́-* 'freeness'
ts'ɔɔ	'probably'	(marker of distended present)

A handful of other adverbial particles fall together into the following group unmarked by any particular semantic cohesiveness:

(47) *Other Ik adverbs*

ɛɗá	'only, alone'
=ɟɪkɛ	'also, too'
kíná	'and then'
naɓó	'again'
=ɲá(k)a	'just'
toni	'even'

The adverb *ɟɪkɛ* 'also, too' undergoes non-final deletion and vowel assimilation such that *ɟɪɪ* is an allomorph commonly heard in the language. The adverb *naɓó* 'again' is cognate with Teso-Turkana *nabo* of the same meaning. In both languages, it can also be used in the sense of 'moreover'.

Adverbial functions are often handled in Ik by nouns and verbs. For example, nouns in the instrumental or dative cases can be used to modify a predicate. In (48) below, the nominalized verb *ɪsílɔ́n* 'to be peaceful' is given the instrumental case to elaborate on the manner in which the person was settled down. Then in (49), the noun *kédi-* 'way' is put in the dative case, also to express the manner in which it was getting cloudy:

(48) *Zeꝁwitetesa bia isilon.*

zɛꝁw-ɪt-ɛt-ɛ́s-á bi-a ɪsíl-ɔ́n-ʷ

sit-CAUS-INCH-INT-REAL you.SG-ACC be.peaceful-INF-INS

He will settle you down peacefully (i.e. with peace).

(49) *Kupetaa kedia gaan.*

kup-et-á-á kédi-e gaan-∅

cloudy-INCH-REAL-PRF way-DAT bad-REAL

It's getting dangerously cloudy (i.e in a bad way).

Many time expressions used adverbially are in fact nouns in the instrumental case with the suffix {-ɔ}, for example those in (50). For more on Ik time expressions, skip ahead to §8.9.

(50)   *Nominal time expressions.*

barats-ᵒ	'in the morning'
mukú-∅	'at night'
ɲaɓáít-ᵓ	'at dawn'
ód-atu-∅	'all day'
ódo-ᵒ	'during the day'
tso-ík-ᵒ	'all night'
wídz-ᵒ	'in the evening'
wídz-ek-ᵒ	'in the evening'
ʃɪŋat-ᵓ	'at dusk'

Other adverbial meanings are expressed through the use of verbs in the simultaneous aspect, marked by the suffix {-kɛ}. For a simultaneous verb to be used adverbially, it must follow the main verb without a subordinating conjunction. And it must also have an impersonal 3SG subject, for example:

(51)   *Waakuo maraŋik!*
       wáák-úó   maráŋ-í-kᵉ
       play-IMP.PL good-3SG-SIML
       Play well (lit. 'You play, it being well.')

(52)   *Todia Icetoda gaanik.*
       tód-i-a   icé-tód-a   gaan-i-kᵉ
       speak-1SG-REAL   Ik-speech-NOM bad-3SG-SIML
       I speak Ik badly (lit. 'I speak Ik, it being bad').

Though the subject of the sentence in (51) is 2PL, and the subject of the one in (52) 1SG, in both cases the post-posed simultaneous verb is 3SG.

8.4 Conjunctions

Conjunctions form that small set of words that link one syntactic unit—be it a phrase or clause—to another. Ik has numerous subordinating conjunctions that introduce dependent clauses, as well as a few coordinating conjunctions that join two syntactic units of the same type. These are described below.

8.4.1 Subordinating conjunctions

Ik exhibits a fairly complicated set of subordinating conjunctions. One cause of the complexity is that different categories like 'conditional' and 'hypothetical' include the Ik three-tier past tense depth. The subordinating conjunctions can be divided into groups according to the type of verb that follows them in the subordinate clause. These include 1) realis, 2) sequential, 3) simultaneous, and 4) miscellaneous.

Temporal subordinate clauses coincide with verbs in the realis modality. They are tensed, their tense specification coming from tensed subordinating conjunctions. A dummy pronoun on the verb marks the fact that a temporal adjunct is part of the clause's semantic schema. These conjunctions are actually grammaticalizations of relative pronouns that themselves were grammaticalized from demonstratives. Ik temporal subordinating conjunctions are all based on the proto-demonstrative *na*. Compare this with nearby Turkana, where the 'feminine agreement marker' *na-* also introduces preposed temporal adverbial clauses (Dimmendaal 1983:392).

(53)   *Temporal subordinating conjunctions*

CONJ	Clause type	Gloss
náa	PST1	'When...,'
sɪna	PST2	'When...,'
noo	PST3	'When...,'
na=náa	PST1 Perfect	'When...had...,'
na=samʊ	PST2 Perfect	'When...had...,'
na=noo	PST3 Perfect	'When...had...,'

Two other subordinating conjunctions combine notions of temporality with conditionality. These are shown in (54). They also cooccur with verbs in the realis modality joined to the dummy pronoun. The particle *nɛ́ɛ́* 'if/when' also functions elsewhere as a locative (ablative) preposition meaning 'from X' (see §8.5). Compare this with the Turkana conjunction *a ní* 'from' which also doubles as a conjunction meaning 'if/when' (Dimmendaal 1983:395-396). The two functions of *nɛ́ɛ́* thus appear to be a calque of similar functors in Turkana. Then the second Ik conjunction shown in (54) is just a combination of the recent past conjunction from (53) and *nɛ́ɛ́*:

(54)   *Conditional-temporal subordinating conjunctions*

nɛ́ɛ́	Conditional/non-past	'If/when...,'
náa nɛ́ɛ́	Conditional/non-past	'If/when...,'

Subordinate clauses with sequential verbs encode conditional and hypothetical statements. Conditional clauses are introduced by the proclitic particle *na´=* (the floating H being posited to account for H tones may put on the first next syllable). Used alone, *na´=* conveys a non-past or gnomic sense, while in combination with tensed conjunctions, it communicates past perfect conditionals. The conditional conjunctions are shown below in (55):

(55)   *Conditional subordinating conjunctions*

CONJ	Clause type	Gloss
na´=	Gnomic conditional	'If...,'
na=náá	Conditional PST1 perfect	'If...had...,'
ná=bee	Conditional PST2 perfect	'If...had...,'
na=noo	Conditional PST3 perfect	'If...had...,'

The hypothetical subordinating conjunctions consist in the first place of the general subordinator *na´=* procliticized to the auxiliary *ka* which is in turn modified by tense clitics. The particle *ka* is isomorphic with the verb root *ka-* 'go'. It would be interesting to investigate cross-linguistically whether a motion verb is elsewhere grammaticalized as a hypothetical marker. The

removed past form $=$*samʊ* is used instead of $=$*bee*. The PST1 perfect form *na=ƙá=naa* can also convey a general, gnomic hypotheticality:

(56) *Hypothetical subordinating conjunctions*

CONJ	Clause type	Gloss
na=ƙá=naa	Hypothetical PST1 (perfect)	'If...would (have),'
na=ƙá=samʊ	Hypothetical PST2 perfect	'If...would have,'
na=ƙá=noo	Hypothetical PST2 perfect	'If...would have,'

Subordinate clauses with simultaneous verb forms are introduced by three different conjunctions: 1) The conjunction *áta* (from Swahili *hata* 'even') introduces concessive clauses. 2) The conjunction *na=* introduces narrative clauses with relative rather than absolute tense. 3) And the conjunction *náa* introduces hypothetical-temporal clauses. The form *náa* is obviously linked to the PST1 conjunction, but its function is nearer to that of *nɛ́ɛ́*.

(57) *Mixed subordinating conjunctions with simultaneous verbs*

CONJ	Clause type	Gloss
áta	Concessive	'Even though/if...,'
na=	Narrative relative temporal	'When...,'
náa	Hypothetical-temporal	'If/when...,'

Four miscellaneous conjunctions remain: 1) *naítá* also takes verbs in the realis modality with the dummy pronoun enclitic. In translation in means 'Since...', 'Given that...', and 'Due to the fact that...'. It is morphologically complex, being made up of the subordinating conjunction *na* plus the 3SG verb form *ít-á* 'It amounts to...'. As such, *naítá* can more accurately be glossed as 'To the degree that...'. 2) *ɗɛmʊsʊ*—used elsewhere as an adverb— coincides with verbs in either the realis modality or the subjunctive mood (irrealis). As a conjunction, it communicates the idea of 'Unless/until...'. 3) *ɗĩtá*—used elsewhere as a preposition—cooccurs with verbs in the realis modality with the dummy pronoun. As a conjunction, it introduces a

similative dependent clause with the meaning 'Like (when)...'. 4) *térútsu*—used to convey a perfect aspectual sense for either present perfect or past tenses. It may be related to the verb *erúts-* 'be new', possibly in connection with an emphatic particle *te*. The conjunction *térútsu* is usually translated as 'After/when...had already...'.

(58)   *Miscellaneous subordinating conjunctions*

CONJ	Clause type	Gloss
naítá	Resultative	'Since...,'
ɗɛmʊsʊ	Concessive	'Even if/though...,'
ɗítá	Similative	'Like (when)...,'
térútsu	Perfective	'After/when...had already...,'

The reader is referred ahead to §9.8 for real-language examples of all these subordinating conjunctions being used to introduce dependent clauses.

8.4.2   Coordinating conjunctions

The coordinating conjunctions conjoin any two syntactic constituents of the same type, for example noun phrases with noun phrases or independent clauses with independent clauses. The semantic relationship implied by the conjunction may be a logical one or a temporal one. The table in (59) presents the Ik coordinating conjunctions and their various meanings. The word *keɗe* is cognate with Teso-Turkana *kori* also meaning 'or', while *ńda* 'and' may be related to the Turkana 'second linker' *tá* (Dimmendaal 1983:411). When followed by another H tone in the same tonal phrase, the conjunction *ńda* causes downstep and may so also be represented as *ń¹da*.

(59)   *Coordinating conjunctions*

	Logical	Temporal
keɗe	'or'	—
(=)kɔtɔ	'then, but'	'then'
ńda	'and'	'and'

Below, two examples of *keɗe* 'or' are provided, one with the conjunction (underlined) linking noun phrases and one with it linking clauses:

(60) *Atsa Fetiekuo keɗe Tabayu?*

ats-a   [fetí-éku-o]$_{NP1}$ <u>keɗe</u>   [tábayu-$\varnothing$]$_{NP2}$

come-REAL   sun-eye-ABL   or   west-ABL

Does she come from the East or the West?

(61) *Daiya noo keɗe gaaniya nok?*

[da-í-a=noo]$_{CLAUSE1}$ <u>keɗe</u>   [gaan-i-á=nokº]$_{CLAUSE2}$

good-PLUR-REAL=PST3   or   bad-PLUR-REAL=PST3

Was it (usually) good or was it (usually) bad?

The conjunction *keɗe* 'or' is also part of a special construction that can be translated for the first person as "I thought maybe…" or "I wondered whether…". This construction consists of the verb *kʋt-* 'say' followed by *keɗe* followed by a complement clause, for example:

(62) *Kutia keɗe atsidaa nkanes.*

kʋt-í-á   <u>keɗe</u>   [ats-íd-a-a   ŋkan-és-$\varnothing$]$_{COMPL}$

say-1SG-REAL   or   come-2SG-REAL-PRF   get-INF-NOM

I thought maybe you've come to get (it).

(63) *Kwiida keɗe ncuo bee?*

kʋ-íd-a   <u>keɗe</u>   [ɲcú-ó=bee]$_{COMPL}$

say-2SG-REAL   or   I-COP=PST2

Do you think it was me (yesterday)?

The conjunction (=)*kɔtɔ* can occur clause-initally followed by a brief pause, but it often attaches to the first clausal element as enclitic. As an enclitic, it is susceptible to vowel harmony coming from a [+ATR] host. This conjunction does not conjoin noun phrases but only clauses. Its meaning is vague enough to cover such notions as 'then, 'so', 'therefore', and even 'but'.

In (64), (=)kɔtɔ links two verbless copular clauses (VC) where it can be translated as 'but'. Then in (65), (=)kɔtɔ links the clause temporally to the previous clause in a text talking about grains being harvested, brought home, piled up, and then cooked for the elders:

(64)   *Benia ncuk, buo kot.*
         [beni-á   ɲcu-kᵒ]ᵥ𝒸   [bu-o]ᵥ𝒸 = <u>kót</u>
         not.be-REAL I-COP   you.SG-COP = but
         It's not me, but it's you.

(65)   *Koŋesee koto ɟak.*
         kɔ́ŋ-ɛ́sɛ = ɛ = <u>kɔtɔ</u>   ɟáká-kᵉ
         cook-SPS = DP = then elders-DAT
         Then it's cooked with it (i.e. grain) for the elders.

Moving on to *ńda*: When noun phrases are linked by *ńda* in a series, the NP heads before *ńda* take whatever case the verb calls for, while the final NP head after *ńda* usually appears in the oblique case. For example, in (66), the first noun in the series (*Ika*) is in the nominative case, while the second (*Pakóíce*) is in the oblique case. Then in (67), the multiple objects of the verb *detini* 'and they brought' (some of which have been left out) take the accusative case except for the last one, which has the oblique case (*sai*):

(66)   *Ika nda Pakoice*
         [ik-a]ₙₚ₁   <u>ńda</u>   [pakó-íce]ₙₚ₂
         Ik-NOM   and   cave-AGT.PL[OBL]
         The Ik and the Turkana

(67)   *Detini riyek, kwazikak, nda...sai menaicikae.*
         det-ini   [rié-kᵃ]   [ƙwáz-íka-kᵃ]...<u>ńda</u> [sai   mɛná-ícíká-ᵉ]ₙₚ
         bring-SEQ goats-ACC cloth-PL-ACC   and other[OBL] things-PL-GEN
         And they brought goats, clothing,...and other things.

Two or more independent clauses may also be joined by *ńda*. In (68), two sequential clauses are linked with it in a compound sentence:

(68) *Atsini nda meese nkaka ntik.*

[ats-ini]~CLAUSE1~ <u>ńda</u> [me-ese ŋƙáƙ-á ńtí-k^e^]~CLAUSE2~

come-SEQ and give-SPS food-NOM they-DAT

They came, and food was given to them.

A verb form often found following *ńda* in a series of two or more clauses is the infinitive, as in the last clause of the following complex sentence :

(69) *Ɓunutoo Pakoika Icek,*

[ɓʊn-ʊ́t-ɔ́-ɔ pakó-ík-a icé-k^a^,]~CLAUSE 1~

scatter-CAUS-3SG-SEQ cave-AGT.PL-NOM Ik-ACC

itsuŋini awikaa,

[ɪtsʊ́ŋ-ínɪ aw-ika-a]~CLAUSE 2~

burn-SEQ home-PL-ACC

toɓini nkakak,

[toɓ-ini ŋƙáƙá-k^a^]~CLAUSE 3~

plunder-SEQ food-ACC

nda itsunesukoti menaicikee muɲ

<u>ńda</u> [ɪtsʊ́n-és-ʊƙɔtɪ mɛná-ícíké-e mʊɲ]~CLAUSE 4~

and gather-INF-AND[OBL] things-PL-GEN all

The Turkana scattered the Ik, burned [their] homes, plundered [their] food, and gathered up all [their] things.

8.5 Prepositions

The 'preposition' category is used here as a catch-all for eight random words that are nonetheless found pre-posed before nouns. The meanings and functions of prepositions in other languages are in large part handled by the Ik relational nouns listed back in §4.3.8. Ik prepositions come from a variety of sources, and each require a particular case on the noun that follows them. Of the eight prepositions shown in (70), only *naakwaa* is properly considered a noun as evidenced by its ability to take case suffixes:

(70)   *Ik prepositions*

	Gloss	Case	Note
dítá	'like'	GEN	—
naaƙwaa	'even'	GEN	cf. Ik *akɔ́-* 'inside'
nɛ́ɛ́	'from, through'	GEN	cf. Teso-Turkana *aní*
akɪlɔ	'instead of'	OBL	fr. Teso-Turkana 'to defeat'
gone	'until, up to'	OBL	fr. Ik *gon-* 'to look'?
kóteré	'because of'	OBL	fr. Teso-Turkana *íkóteré*
ńda	'with'	OBL	cf. Teso-Turkana *tá*
páka	'until, up to'	OBL	fr. Swahili *mpaka*

These eight prepositions are each exemplified with one example below:

(71)   *Gogosese dita riye.*

góg-os-ese   <u>dítá</u>   rié-∅

peg-PASS-SPS   like   goat-GEN

It (i.e. a rat skin) was pegged like (that of) a goat.

(72)   *Ee, naakwaa ɉotee tsitsikimik.*

ee   <u>naaƙwa</u>-a   ɉɔtɛ́-ɛ́   tsitsik-ímí-kᵉ

yes even-NOM   sisal.root-GEN   roll-1PL.EXC-SIML

Yes, (we) rolling even sisal root (i.e. as kids practicing spearing).

(73) *Hyeida dikwitina nii nee karoŋoe?*

ɓye-íd-a	dikw-itín-á=nii	nɛ́ɛ́	karoŋó-e
know-2SG-REAL	song-PL-NOM=DEM.PL.PST1	from	harvest.season-GEN

Do you know these songs from harvest season?

(74) *Akilo bi iɓeleesi kiɟae,*

akɪlɔ	bi	iɓélé-ésí	kíɟá-ᵉ
instead.of	you.SG[OBL]	change-INF[OBL]	land-GEN

iɓelea kiɟa bik.

iɓélé-a	kíɟ-á	bi-kᵃ
change-REAL	land-NOM	you.SG-ACC

Instead of you changing the world, the world changes you.

(75) *Toriikweese gone dziŋa ke.*

torí-íƙo-ese	gone	dziŋá=ke
lead-AND-SPS	up.to	base[OBL]=DEM.SG.DIST

And they were led away to that base of the slope.

(76) *Iryametia ɓyekesie ncie kotere kiroti nci.*

iryam-et-í-á	ɓyek-esí-é	ɲci-e	kóteré	kirotí	ɲci-ᵠ
get-VEN-1SG-REAL	live-INF-DAT	I-GEN	b'se.of	sweat[OBL]	I-GEN

I get my livelihood because of my own sweat.

(77) *Tomore emutika nda ngo.*

tɔmɔ́r-ɛ́	emút-íká	ńda	ŋgo
share-IMP.SG	story-PL[OBL]	with	we.EXC[OBL]

Share stories with us!

(78) *Beberese paka Lokoŋude.*

béber-ese	páka	lɔƙɔ́ŋʊ-dɛ
pull-SPS	until	sacred.tree-foot[OBL]

And it was pulled all the way to the foot of the Sacred Tree.

8.6 Interjections

A number of words may be uttered in Ik that express a speaker's state of mind in response to something strongly felt. Such 'interjections' are of two types: 1) Those that have no other meaning and 2) those that do:

(79)   *Interjections with no other meanings*

aaii/áí	expression of pain (like 'ouch!')
báas	expression of conclusion (fr. Swahili *basi*)
ee/éé	'yes'
ha	expression of strong disagreement or protest
héé?	expression of disbelief
ńtóodó	'no'
wóí	expression of pain or fear
wúlu	expression of surprise (like 'yikes!')
yweé	when someone has made a mistake
yóói	expression of good-natured disbelief or protest

(80)   *Interjections with other meanings*

	Expressive meaning	Literal meaning
ábaŋ/ábaŋ	expression of surprise	'My father!'
hóítá kwí	expression of surprise	fr. Teso-Turkana
ima=na	expression of surprise	'This child!'
ndɛ́ɛ́	expression of disbelief	'From where?'
ɲakuɟ	expression of strong emotion	'God!'
ɲɔtɔ=ni	expression of surprise	'These men!'
roɓa	attention-getting device	'People!'
wice=ni	expression of surprise	'These children!'
yáŋ	expression of surprise	'My mother!'

8.7   Ideophones

Like many African languages, Ik has a class of expressive words that may be called 'ideophones', forms "characterized by phonological structures that tend to be peculiar" (Matthews 2007:183). In Ik, this phonological peculiarity may entail extra-long vowels and multiple reduplications, as well as expressive tonal and intonational patterns. Ik has three types of ideophones: 1) Those that are onomatopoeic or symbolic of the sound made by an action, 2) those that add extra vividness to a stative verb, and 3) those paired with the verb *kʊt-* 'say' to form special phrasal verbs. Examples of the first type—onomatopoeic—include the following:

(81)   *Onomatopoeic ideophones*

buluɠ	sound of stone landing in water
buúu	sound of cow lowing
dɛrɛdɛrɛdɛr	sound of saucepan rolling
ɗɪ	sound small sticks make when hitting or breaking
ɗul	sound body makes when hitting the ground
fi̥ʊ̥ʊ̥	sound of bullet whizzing by
gulu̥ɟ	sound made when swallowing a big piece of meat
hyeaa	sound of a tree falling
ɸyom	sound of a stick breaking easily
kurukurukur	sound of a gourd rolling
mɛ́ɛɛ	sound made by goats bleating
pɪs	sound of sharp object piercing flesh
pʊʊtᵘ	sound of spear going through a body
raaraar	sound of many hands clapping
rɪrrr	sound of a flame
tɛ	sound of firewood breaking
tse̥f	sound of an animal stepping
tudᵘ	sound made when spear fails to penetrate
wuoo	sound of a Euphorbia tree falling
zɪɪɪ	sound of a vehicle going by

The second type of ideophone—those not obviously onomatopoeic—simply add some semantic vividness to the verb's meaning. These ideophones are often paired with a particular verb, for example:

(82)   *Non-onomatopoeic ideophones*

duu	ɓoɓa duu	'It's very deep.'
ɗukᵘ	masáná ɗukᵘ	'It's rotten stinky.'
hel	tsáá hel	'It's very dry.'
pakⁱ	ɓets'a pakⁱ	'It's very white.'
pic	ẹ́óda pic	'It's very full.'
tíkⁱ	buɗámá tíkⁱ	'It's very black.'
tson	ɗîwa tson	'It's very red.'

The third type of Ik ideophone are those that are paired with the verb *kʊt-ɔn* 'to say' to form special phrasal verbs with highly expressive overtones:

(83)   *Ideophones paired with kʊt- 'say'*

ɗɪ	kʊtɔna ɗɪ	'to hit something'
ɗɪɪɪ	kʊtɔna ɗɪɪɪ	'to beat down (of hot sun)'
kɪmɪa	kʊtɔna kɪmɪa	'to be dead silent'
liooo	kʊtɔna liooo	'to be dead silent'
líʊʊ	kʊtɔna líʊʊ	'to make sound of a bullet or beating'
ŋɛɗ	kʊtɔna ŋɛɗ	'to stop suddenly (of one's heart)'
pel	kʊtɔna pel	'to make first appearance (of the moon)'
pir	kʊtɔna pir	'to appear'
píʊʊ	kʊtɔna píʊʊ	'to refuse to catch fire'
puas	kʊtɔna puas	'to shatter or burst'
ritⁱ	kʊtɔna ritⁱ	'to run and collapse suddenly'
tusss	kʊtɔna tusss	'to ricochet'

8.8 Infantile imperatives

Ik has a collection of short words that are used to encourage young children to perform certain actions. These 'baby-talk' particles are inherently imperative but involve no verbal morphology. Examples include these:

(84)   *Infantile imperatives*

ɓá	used to call a child to come eat
bubú	'night-night', used to encourage a child to go to sleep
dí	'poo-poo', used to encourage a child to defecate
ko	children's word for 'water'
kɔkɔ́	used to warn a child not to touch something
kukú	used to encourage a child to climb on one's back
kwaa	'pee-pee', used to encourage a child to urinate
mamá	used to encourage a child to eat
nʊʊnú	used to encourage a child to nurse

8.9 Time expressions

Time expressions in Ik do not make up a distinct word class. However, they do form a special lexical subset worth taking note of. All time expressions are nouns with case suffixes and other modifiers like demonstratives and post-posed subordinate clauses. Their being formed from nouns recalls Turkana adverbs of time which also originate in nouns (Dimmendaal 1983:360). As mentioned back in §6.3.3, the instrumental case is used in Ik to mark time expressions in the context of sentences. In their isolation forms, however, the time expressions may take the nominative case.

The names for the weekdays Monday-Friday in Ik are formed with the word *ɲákásií-* 'work'—from Swahili *kazi* 'work'—coupled with a numeral quantifier in a simultaneous clause. For example, the word for 'Monday' translates literally as 'work(day) being one'. The words for 'Saturday' and 'Sunday' are borrowed from Teso-Turkana. The term of 'Sunday' (*ɲásaɓéti-*) originates from Italian through the influence of the Catholic church:

(85)   *Ik days of the week*

1	Ɲákásíá Kɔnɪkᵉ	'Monday'
2	Ɲákásíá Leɓetsikᵉ	'Tuesday'
3	Ɲákásíá Aɗikᵉ	'Wednesday'
4	Ɲákásíá Ts'agúsíkᵉ	'Thursday'
5	Ɲákásíá Tudikᵉ	'Friday'
6	Ɲárámɪram	'Saturday'
7	Ɲásaɓétᵃ	'Sunday'

The names for the months of the year are borrowed from Teso-Turkana because the Ik have no indigenous alternative. At times the Teso-Turkana names are translated directly into Ik, but these calques receive little usage.

(86)   *Ik Months of the Year*

1	Lomuk´	'January'
2	Lokwaŋ´	'February'
3	Lɔɗúŋɛ´	'March'
4	Lomaruk´	'April'
5	Titímá	'May'
6	Yɛlɪyél	'June'
7	Lɔmɔɗɔkɔgec´	'July'
8	Lɔsúɓán	'August'
9	Lotyak´	'September'
10	Lɔlɔɓáᵉ	'October'
11	Lopóo	'November'
12	Lorára´	'December'

Ik also has time expressions used to refer to days or years removed from the present either in the past or the future. For the day-terms, Ik combines the proto-temporal root *tso*, the word *ódou-* 'day', or the word *baratsó-* 'morning' with demonstratives in proclitic and/or enclitic positions. Some of these demonstratives exhibit phonological reduction, maybe to the point of

lexicalization. Not all the morphology in these terms is fully understood. The day terms in (87) are presented with Wednesday acting as 'today':

(87) *Day-Terms, Past and Future*

Saturday	ké＝tsóítá ke＝noo＝ke	'four days ago'
Sunday	ké＝tsóítá＝nokº	'three days ago'
Monday	nó＝tsóo＝nokº	'two days ago'
Tuesday	sáá＝tso＝sɪn	'yesterday'
Wednesday	**nó＝ódwáá (＝ne)**	**'today'**
Thursday	táá barats-º	'tomorrow'
Friday	ké＝tsói barats-º	'two days from now'
Saturday	ké＝tsóítá＝ke	'three days from now'

Time expressions used to refer to years removed in the past or future are built on the root *kaɪní-* 'year'. This is also modified by proclitic and enclitic demonstratives and exhibits phonological reduction and lexicalization. The proclitic or prefix *sá(á)-* seen in both (87) and (88) no doubt is a parallel with Dime's (South Omotic) distal prefix *sa-* (Mulugeta 2008:73). In (88), the term *keináts* contains the verb root *ats-* 'come', as in 'the coming year':

(88) *Year-terms, past and future*

Year	Grammatical	(Partly) Lexicalized
2010	kaɪna＝noo＝ke	nɔkɛ́ɪna ke＝noo＝ke
2011	kaɪna nó＝tso	nɔkɛ́ɪna＝ke
2012	kaɪna＝nokº	nɔkɛ́ɪna (＝nokº)
2013	kaɪna＝sɪn	sákɛɪna (＝sɪn)
2014	**kaɪnɔ＝na**	**nákáíná (＝na)**
2015	kaɪna＝na táa	keináts
2016	kaɪna＝na tsó	nákáíná tso
2017	kaɪna＝ke	nákáíná＝ke
2018	kaɪna＝na far	nákáíná far

8.10 Greetings

Ik greetings do not constitute a separate grammatical word class *per se*. But they do consist of a variety of verb phrases and noun phrases used ritually so as to take on pragmatic meaning beyond grammar and semantics. Given the cultural importance of Ik greetings, they are presented below.

The most general greeting and the one usually first taught to outsiders is in the form of a question:

(89)   *Iyida?*   *Iyita?*
       i-íd-a   i-ít-a
       be-2SG-REAL   be-2PL-REAL
       Are you there?   Are you all there?

In answer to this question, one typically responds with another question:

(90)   (*Iyida) bia ɉii?*
       (i-íd-a)   bi-a=ɉɪɪ
       be-2SG-REAL you.SG.NOM=also
       (Are you there) you also?

The standard greetings in (89)-(90) mirror exactly those in Teso-Turkana languages where the phrase is rendered *Iyai a?* 'Are you (sg.) there?' or *Iyakasi a?* 'Are you (pl.) there?' A variation on this greeting in the northern Dodoth dialect of Karimojong is set in the subsecutive mood as *Toyai/Toyakas* 'And you be there' which can also have imperative overtones, as in 'You be there'. The grammatical form of these greetings has seeped into Ik as *Iyiduk/Iyituk* '(And) you be there' in the sequential aspect, though this form is less frequently heard. This reflects the fact that most Ik greetings are grammatical replications of those found in Teso-Turkana.

A number of other Ik greetings are specific to certain times of the day. In the morning, generally up till about 9 or 10 am, the following greetings may be used in place of those described above:

(91) *Epidaa?*   *Epitaa?*
      ep-íd-a-a   ep-ít-á-a
      sleep-2SG-REAL-PRF   sleep-2PL-REAL-PRF
      Have you slept?   Have you all slept?

(92) *Goneseidaa?*   *Goneseitaa?*
      gon-es-é-íd-a-a   gon-es-é-ít-á-a
      awake-IPFV-INCH-2SG-REAL-PRF   awake-IPFV-INCH-2SG-REAL-PRF
      Have you awoken?   Have you all awoken?

The answer to both of these greetings, as well as the one presented next in (93), is the refrain given in (90) above.

From mid-morning until the evening, the greetings in (93) are also heard:

(93) *Iryaidaa?*   *Iryaitaa?*
      iryá-íd-a-a   iryá-ít-á-a
      pass.the.day-2SG-REAL-PRF   pass.the.day-2PL-REAL-PRF
      Have you passed the day?   Have you all passed the day?

After these initial greetings used to initiate a social interaction, any of the following questions may be posed in a polite bid for more information:

(94) *Kutana is?*   *Isiemutio iy?*
      kʊt-an-a   is-∅   isi-emutí-ó   i-∅
      say-IPS-REAL   what-OBL   what-story/news-COP   be-REAL
      What is said?   What news is there?

Of course, like greeting questions in any language, the ones in (94) are more like rhetorical questions than information questions. There is handful of standard replies that may be alternated according to the weather, the relative hunger felt in that land, or the current mood in the neighborhood:

(95) *Biraa emuta iy.*
bɪra-a   émut-a   i-∅
not.be-REAL story/news-NOM   be-REAL
There is no news.

(96) *Ɲeke eɗa.*
ɲɛ̂k-a   ɛɗá
hunger-NOM   only
Only hunger.

(97) *Maraŋa zuk!*
maráŋ-á   zukᵘ
good-REAL   very
Very good.

Chronic hunger, especially in the second and third quarters of the year, has been part of the Ik people's normal existence. Over time, the conditions of hunger have shaped the culture, and this is reflected in another series of greetings. The following greetings, having to do with hunger and food, are often quite startling to newcomers in the area. This is because they sound very direct and are interpreted literally as requests for food, when more often the people saying them do not actually expect food to be given:

(98) *Isio nkan?*   *Isio nki?*
isi-o   ŋk-an-∅   isi-o   ŋk-í-∅
what-COP   eat-IPS-REAL   what-COP   eat-1SG-REAL
What is (being) eaten?   What do I eat (here)?

The standard reply to both of these questions is *bɪra* 'Nothing'. But if persistent, one may further inquire:

(99)   *AyuꞰotaa toboŋa?*
       aĕ-iꞰot-á-á   tɔbɔŋ-a
       ready-COMP-REAL-PRF   maize.mush-NOM
       Has the *posho* gotten ready?

One can respond to (99) with *sár* 'Not yet', *máá aĕiꞰotⁱ* 'It hasn't got ready', or *máá naa ŋwɛɛ́sⁱ* 'I didn't grind (flour)'.

Another type of initial greeting, involving the imperative verb *bírɛ́*, became something of a symbol of Ik beggarliness in Colin Turnbull's (1972) infamous book about the Ik called *The Mountain People*. A phrase often repeated in the book—*brinji lotop* in his orthography (e.g., p. 56)—is usually translated as 'Give me tobacco'. Both in translation and in actual pronunciation, this phrase sounds abrupt and a bit rude to a foreigner unaccustomed to a begging/sharing culture. Though the stark intonation of the phrase is unavoidable, there is a better translation than 'Give me'.

The imperative *bírɛ́* should not be translated simply as 'Give me' because there is already another verb that means 'give': *ma-*, or *me-et-* in the venitive. 'Give me' is the correct translation for the phrase *meete ɲcikᵉ*, where *ɲcikᵉ* 'to me' is the dative case form of the first person singular pronoun. So 'Give me tobacco' would be *Meete lɔ́tɔ́ba ɲcikᵉ*. As discussed back in §6.3.3, in the phrase *brinji lotop*—more accurately written as *bírɛ́ ɲci lɔ́tɔ́bˀ*—the object of the imperative is *ɲci* 'me' in the oblique case, while *lɔ́tɔ́b* 'tobacco' is an adjunct argument in the instrumental case. If the grammar is any indication, then the phrase means 'X me *with* tobacco'. As best as can be gathered from its singular use in this greeting of request, the verb *bírɛ́ ɲcⁱ* approximates to something like 'Help me', 'Relieve me', or 'Avail me'.

Another component of Ik greeting is asking about one's movements to and
fro. In Western society, this may seem rude as most people live out their
individual lives with a good deal of privacy. But in tight-knit communities
like those of the Ik, ones that have suffered from attacks and emergencies of
all kinds, knowing each other's whereabouts is an expected nicety. The
following questions and replies are respresentative of what one might hear:

(100) *Atsida ndee?*   *Atsia awao.*

ats-íd-a   ndɛɛ́   ats-í-á   awá-º

come-2SG-REAL   from.where   come-1SG-REAL   home-ABL

You're coming from where?   I'm coming from home.

(101) *Keesida ndaik?*   *Keesia sedak.*

ƙe-es-íd-a   ndaí-kᵉ   ƙe-es-í-á   séda-kᵉ

go-INT-2SG-REAL   where-DAT   go-INT-1SG-REAL   garden-DAT

You are going where?   I'm going to the garden.

After one's origin or destination has been revealed, further seemingly (to
outsiders) intrusive questions may be asked. These questions are generally
good-natured and should be viewed as such. Consider the following:

(102) *Isio naa nkaneid?*

isi-o=náa   ŋƙan-é-íd-∅

what-COP=PST1   get-VEN-2SG-REAL

What did you get (i.e. when you went there)?

(103) *Nkaka isi?*

nƙáƙ-á   isi-∅

eating-NOM   what-GEN

To eat what (i.e. why are you going)?

After greetings, questions, and conversation, leave-taking occurs. When one
participant gets ready to leave, the other may offer such phrases as:

(104) *Kae ɟaa?*   *Koyuo kotoo?*

     ƙa-e =ɟáaá   ƙóy-úo =kotoó

     go-IMP.SG = ADV   go-IMP.PL = ADV

     Alright, go!   You go then!

(105) *Itae maraŋidik!*

     ɪta-ɛ   maráŋ-ídi-kᵉ

     reach-IMP.SG   good-2SG-SIML

     Reach well!

(106) *Epuƙotuo maraŋitik!*

     ep-uƙot-úó   maráŋ-íti-kᵉ

     sleep-COMP-IMP.PL   good-2PL-SIML

     Sleep well!

At any point of a social interaction, the liberal usage of *maráŋ* 'good/okay' is typically appropriate. And if one is particularly happy about what has transpired during the interaction, it is suitable to add the following:

(107) *Ilakasuƙotiaak!*

     ɪlák-ás-uƙɔt-í-a-kᵃ

     happy-ABST-COMP-1SG-REAL-PRF

     Thank you (lit. 'I have become happy')!

(108) *Ilakasuƙotimak!*

     ɪlák-ás-uƙɔt-ím-á-kᵃ

     happy-ABST-COMP-1PL.EXC-REAL-PRF

     Thank you (lit. 'We have become happy')!

9 Phrases and Clauses

Now that phonemes and morphemes (words and affixes) have been described, the present chapter takes up the topic of basic syntax. It begins with a discussion of noun phrases (§9.1), followed by simple main clauses (§9.3-§9.6), a variety of subordinate clauses (§9.7-§9.9), and several other noteworthy syntactic constructions (§9.10-§9.16). In many regards, this chapter only scratches the surface of Ik syntax, but it is hoped that the topics covered here will provide impetus for further investigation.

9.1　Noun phrase structure

Noun phrases (NP) fill core or peripheral argument slots in clause structure. Their phrasal heads can be made up of a solitary noun (including nominalized verbs), pronoun, or compound. Noun phrases may also include one or more modifiers such as: demonstratives, quantifiers, possessive phrases, or relative clauses. In other words, a given NP may consist of just the head or of multiple embedded phrases and/or clauses.

Any modifiers within an Ik noun phrase follow the phrasal head they modify. This conforms to expectations for VSO languages (Creissels 2000:252), of which Ik is one. For example, in (1) below, the possessive NP *ńci* 'my' follows the noun *dakwitíná* 'trees', as do the plural demonstrative =*ni* in (2) and the numeral quantifier *adᵉ* 'three' in (3):

(1)　　*dakwitina nci*
　　　　[dakw-itín-á　　[ńci-∅]_{NP:POSS}]_{NP}
　　　　tree-PL-NOM　　I-GEN
　　　　my trees

(2)   *dakwitina ni*
        [dakw-itín-á = ni]_{NP}
        tree-PL-NOM = DEM.PL
        these trees

(3)   *dakwitina aɗ*
        [dakw-itín-á   aɗᵉ]_{NP}
        tree-PL-NOM   three
        three trees

More than one type of demonstrative may modify a noun in the same noun phrase. When all three types of demonstrative cooccur, they do so in the following order: anaphoric-temporal-spatial. An example of this is in (4):

(4)   *ama dee sina ne*
        [ám-á = ˈdéé = sɪna = ne]_{NP}
        person-NOM = ANPH.SG = PST2.DEM.SG = DEM.SG.MED
        that person there (of yesterday, already mentioned)

Ik speakers have a penchant for using spatial demonstratives more than once in a single noun phrase (see also §8.2.1). It seems to add a bit of rhythmic balance to one's speech. (5) shows an example of this:

(5)   *ama ke naa ke*
        [ám-á = ke = náa = ke]_{NP}
        person-NOM = DEM.SG.DIST = DEM.SG.PST1 = DEM.SG.DIST
        that person over there (of earlier today)

If a modifier NP is selecting its head from a group rather than merely qualifying it, it trades places: It becomes the NP head and the modified noun becomes a possessive NP. This happens, for example, with the indefinite pronoun *saí-* 'some more, some other' and the interrogative pronominal compound *ńté-ɛ́ɲí-* 'which?'. In (6), the noun *awika-* 'homes' is

bumped into an embedded genitive possessive phrase modifying the indefinite *saa*. And in (7), the same thing happens to *awá^e* 'home':

(6)　*saa awikae*
　　　[sa-a　　　[aw-ika-^e]_{NP:POSS}]_{NP}
　　　other-NOM　home-PL-GEN
　　　some other homes

(7)　*Nteena awae?*
　　　[ńté-έn-á　　　　　[awá-^e]_{NP:POSS}]_{NP}
　　　which-PSSM-NOM　home-GEN
　　　Which home?

If a quantifier cooccurs with either a possessive phrase or a demonstrative in an NP, the quantifer comes last in the sequence, for example:

(8)　*ŋokitina ncie gai*
　　　[ŋók-ítín-á　[ɲci-e]_{NP:POSS}　　^ꜜgáí]_{NP}
　　　dog-PL-NOM I-GEN　　　　both
　　　both my dogs

(9)　*ŋokitina ni gai*
　　　[ŋók-ítín-á=ni　　　^ꜜgáí]_{NP}
　　　dog-PL-NOM DEM.PL　both
　　　both these dogs

And if all three types of modifers are present, the following order obtains:

(10)　*ŋokitina ncie ni gai ni*
　　　[ŋók-ítín-á　[ɲci-e]_{NP:POSS}=ni　　^ꜜgáí =(ni)]_{NP}
　　　dog-PL-NOM I-GEN=DEM.PL　　both=DEM.PL
　　　both these dogs of mine (these)

Noun phrase heads may be modified by relative clauses (see §9.8 for a more detailed treatment). These clauses also follow the NP head. They tend to fall at the end of the NP, but quantifiers may optionally follow them:

(11) *dakwitina ncie gai ni dunaaket*
      [dakw-itín-á   [ɲci-e]~NP:POSS~ ꜗgáí = [ni   dun-aak-et-ᵃˊ]~RC~]~NP~
      tree-PL-NOM   I-GEN   both = REL.PL   old-DISTR-INCH-REAL
      both of my old trees

(12) *dakwitina ncie ni dunaaketa gai*
      [dakw-itín-á   [ɲci-e]~NP:POSS~ = [ni   dun-aak-et-a]~RC~   ꜗgáí]~NP~
      tree-PL-NOM   I-GEN = REL.PL   old-DISTR-INCH-REAL both
      both of my old trees

And when multiple adjectival verbs are used to describe a clausal argument, only one relative clause structure is used. After the relative pronoun come the two or more adjectivals, demarcated with a pause (‖) between each one:

(13) *dakwitina ncie ni dunaaket,*
      [dakw-itín-á   [ɲci-e]~NP:POSS~ = [ní   dun-aak-et-∅ ‖
      tree-PL-NOM   I-GEN = REL.PL   old-DISTR-REAL

      zikibaakat, iliɓaakata muŋ
      zikíb-aak-át-∅ ‖   ɪlíɓ-aak-át-a]~RC~   muŋ]~NP~
      tall-DISTR-3PL-REAL green-DISTR-3PL-REAL   all
      all my old, tall, green trees

9.2 Possession

The following overview of 'possession' in Ik covers not only the possessive constructions within in noun phrases, but also some of the broader issues surrounding how 'possession' is syntactically encoded in the language.

From a syntactic point of view, Ik employs three types of possessive construction: 1) A possessee NP head followed by a possessor NP in the genitive case, 2) a possessor noun and a possessee noun joined in a compound, in that order. Ik speakers claim there is no difference in meaning between these two types. 3) The third type of possessive construction is complex. It consists of a compound with the possessor as the N_1 and the possessum morpheme *ɛní-* as the N_2. These two elements alone comprise a possessive noun phrase, as in *ɲj-ɛ́n* 'mine'. But then the possessee can be specified by putting it in a genitive phrase after the NP head. This construction can be termed 'pertensive' (Dixon 2010b:268), given that the possessee bears the traditional marking for possessor (the genitive case):

(14)   *NP possessive constructions*

1	awa ɲ́ci	home I:GEN	'my home'
2	ɲ́ci-aw	I:OBL-home	'my home'
3	ɲj-ɛ́ná awáᵉ	I[OBL]-PSSM home:GEN	'my home'

The types of semantic relationships that Ik possessive constructions can express include those in (15)-(21). According to Dixon (2012b:263), Ik would fall into that group of languages worldwide that shows a comparatively wide range of such relationships:

(15)   Ownership: *nkaka nti*

ŋ́káƙá   ńtí-∅

food-NOM   they-GEN

their food

(16)   Whole-part: *rijaakw*

ríjá-aƙw-ᵃ

forest[OBL]-inside-NOM

the inner (part of the) forest

(17) Kinship: *njini-liaat*
 ɲjíní-liaát-ᵃ
 we.INC[OBL]-brother-NOM
 our brother

(18) Attribute: *iɓaaŋasa wice*
 ɪɓááŋ-as-a   wicé-∅
 foolish-ABST-NOM   children-GEN
 the foolishness of children

(19) Orientation: *koo kwaro awae*
 kɔ́ɔ́   kwar-ɔ   awá-ᵉ
 there   mountain-INS   home-GEN
 there by the upper side of the home

(20) Association: *mucea taŋaikini*
 muce-a   taŋá-ík-ɪnɪ-∅
 path-NOM   cohort-PL-POSS.PL-GEN
 the path of their companions

(21) Nominalization: *arutetona ebae*
 arút-ét-on-a   έba-ᵋ
 sound-INCH-INF-NOM   gun-GEN
 the sound of a gunshot

Ik also uses verbal means to express possession. For example, the verbs *tír-és* 'to hold', *i-on* 'to be', and *i-ona ńda* 'to be with' are all common verbal alternatives alongside the NP possessive constructions in (14). These verbs used in this way often translate as 'to have'. The first, *tír-és*, is a transitive verb whose subject would be the possessor and object the possessee. Due to its high degree of agency, this verb is restricted to human possessors:

(22)　*Tirida ɲakalama?*

　　tír-íd-a　　　　ɲákalám-a

　　hold-2SG-REAL　pen-NOM

　　Do you have a pen (lit. 'Are you holding a pen')?

(23)　*Biraa koroɓaa tiri.*

　　bɪra-a　　　　kɔ́rɔ́ɓá-a　　tír-í-∅

　　not.be-REAL　thing-NOM　hold-1SG-REAL

　　I have nothing (lit. 'There is nothing I am holding').

The second 'have'-verb—*i-on* 'to be'—is the language's locative/existential copular verb. Used in a possessive way, this verb takes the possessee as its subject and the possessor as a peripheral argument in the dative case, e.g.:

(24)　*Iya ɲakalama ncik.*

　　i-a　　　ɲákalám-a　　ɲci-kᵉ

　　be-REAL　pen-NOM　　I-DAT

　　I have a pen (lit. 'There is a pen to me').

To negate the kind of possessive clause in (24), one has to substitute the negative locative copula (*bɪrá-* 'not be there') and put the possessor (or more precisely, the 'un-possessor') in the ablative case:

(25)　*Biraa ɲakalama ncu.*

　　bɪra-a　　　　ɲákalám-a　　ɲcu-∅

　　not.be-REAL　pen-NOM　　I-ABL

　　I have no pen (lit. 'A pen lacks from me').

The third verb, *i-ona ńda* 'to be with', combines the locative/existential copula *i-* with the preposition *ńda* 'and/with'. The possessor is the subject of the verb, and the possessee is a peripheral argument in the oblique case. When negated with the verb *bɪrá-* 'lack' the oblique-case possessee is marked on the subordinated verb *i-* 'be' with the dummy pronoun enclitic {=´dɛ}:

(26) *Iyida nda ɲakalamʋ?*
  i-íd-a   ń⁺da   ɲákalámʋ
  be-2SG-REAL   with   pen[OBL]
  Do you have a pen (lit. 'Are you with a pen')?

(27) *Bıraa ɲakalama iyiaad.*
  bɪra-a   ɲákalám-a   i-í-á=dᵉ
  not.be-REAL   pen-NOM   be-1SG-REAL=DP
  I don't have a pen (lit. 'A pen is lacking that I am with').

The Teso-Turkana languages bordering Ik, like Karimojong and Turkana, also convey possession by means of locative/existential copulae. In the following examples (from Mantovani 1963:9, though morpheme glosses are my own), the verb *ayakau* 'to be (there)' has the meaning of 'to have':

(28) *Eyai iyong aite.*
  eyaí   íyoŋ   áite
  be:3SG   you:DAT   cow
  You have a cow (lit. 'A cow is to you').

(29) *Eyakasi iyong ngaatuk.*
  eyakási   íyoŋ   ŋáâtuk
  be:3PL   you:DAT   cows
  You have cows (lit. 'Cows are to you').

9.3   Basic clause structure

The 'clause' is defined here as the minimal unit of syntactic organization that includes a verbal element, finite or non-finite. Thus it encompasses the 'verb phrase' (predicate and any modifiers) and any 'noun phrases' (nouns and any modifiers) needed to fill the predicate's argument slots. The notion of 'verb phrase' *per se* will not be dealt with further since the 'clause' includes the verb phrase by definition. Having discussed noun phrases in the last section, this one takes up the topic of basic Ik clauses: unmarked main clauses, subordinate clauses, and various types of marked main clauses. Other specific topics covered in later sections of this chapter include questions, reported speech, comparative constructions, and negation.

Ik exhibits a strict VSO constituent order in basic unmarked main clauses. This puts it in a 'word-order' typological category with Ancient Egyptian, a few Chadic languages, much of Eastern Sudanic (notably Eastern Nilotic), and possibly some Berber and other Afroasiatic languages (Creissels 2000:252). It distinguishes it from other regional languages like Dhaasanac (SOV) and Dime (SOV). Though Teso-Turkana languages are classified as VSO, a VOS order is also common (Dimmendaal 1983:68). But VOS is not attested in Ik. Like some of the controversially analyzed VSO languages in Africa, Ik exhibits both VSO and SVO constituent orders. However, in Ik, SVO is restricted to subordinate clauses, which are described below in §9.4.

Ik's VSO constituent order along with its total lack of synchronically functional prefixes is one of its 'remarkable' typological properties (Heine & König 1996:123). This property, along with the subordinate clause SVO contituent order, suggests that VSO may be a wholesale syntactic structure replicated from the historically influential Eastern Nilotic languages.

A 'basic clause' is defined here is a simple, declarative statement with a 3sg subject, realis modality, and positive polarity—in other words, functionally and semantically unmarked. As noted above, the order of core constituents

in an Ik basic clause is VSO, or more precisely, VS in intransitive clauses and VAO in transitive clauses. In (30) below, the noun *ŋók^a* 'dog' is functioning as the subject of the intransitive predicate *ep-* 'sleep'. And in (31), the same noun is acting as the subject of the transitive predicate *áts'-* 'gnaw' with *ɔká-* 'bone' as its object. Note how the subject follows the verb in each example, and how the object follows the subject in (31):

(30)   *Epa ŋok.*
        ep-a$_V$ ŋók-$^a{}_S$ Intransitive = VS
        sleep-REAL   dog-NOM
        The dog is asleep.

(31)   *Ats'a ŋoka oka.*
        áts'-á$_V$ ŋók-á$_A$ ɔká-k$^a{}_O$ Transitive = VAO
        gnaw-REAL   dog-NOM   bone-ACC
        The dog gnaws a bone.

Tense clitics fall between the main verb and its first overt argument, as in:

(32)   *Epa bee ŋok.*
        ep-á$_V$ = bee   ŋók-$^a{}_S$
        sleep-REAL = PST2   dog-NOM
        The dog slept (yesterday).

(33)   *Ats'a noo ŋoka oka.*
        áts'-á$_V$ = noo   ŋók-á$_A$ ɔká-k$^a{}_O$
        gnaw-REAL = PST3   dog-NOM   bone-ACC
        The dog gnawed the bone (a while ago).

When peripheral arguments and other adjuncts like adverbs are put in a clause, these fall after any core constituents. For example, if the peripheral argument *kurú* 'in the shade' is added to (32) from above, it comes after both the verb and the subject, as in (34) below:

(34) *Epa ŋoka kuru.*

    ep-a$_V$ ŋók-á$_S$ kurú-∅$_{PERIPHERAL}$

    sleep-REAL   dog-NOM   shade-ABL

    The dog is sleeping in the shade.

And if an adverb like *híⁱj*ʼ 'slowly' is added to (33), it comes after the verb, tense clitic, subject, and object, as in:

(35) *Ats'a naa ŋoka okaa hiij.*

    áts'-á$_V$=naa   ŋók-á$_A$ ɔká-á$_O$ híⁱjʼ$_{ADJUNCT}$

    gnaw-REAL=PST1   dog-NOM   bone-ACC   slowly

    The dog gnawed the bone slowly (earlier today).

If the arguments, core or peripheral, have modifiers, these modifiers directly follow the NP heads they modify. The next three examples are variations of (34), showing where respective NP modifiers occur:

(36) *Epa ŋoka ncie kuru.*

    ep-a$_V$ [ŋók-á   ɲci-e]$_S$ kurú-∅$_{PERIPHERAL}$

    sleep-REAL dog-NOM   I-GEN   shade-ABL

    My dog is sleeping in the shade.

(37) *Epa ŋoka na ɓets'a kuru.*

    ep-a$_V$ [ŋók-á=na   ɓets'-a]$_S$ kurú-∅$_{PERIPHERAL}$

    sleep-REAL dog-NOM=REL.SG   white-REAL shade-ABL

    The white dog is sleeping in the shade.

(38) *Epa ŋoka kuruo na kwats.*

    ep-a$_V$ ŋók-á$_S$ [kurú-ó=na   kwáts-∅]$_{PERIPHERAL}$

    sleep-REAL dog-NOM   shade-ABL=REL.SG small-REAL

    The dog is sleeping in the small shade.

Ik clauses may be intransitive, transitive, or distransitive. At the notional level, intransitive clauses minimally require a subject (S) as an argument. Transitive clauses minimally require an agent (A) and object (O), while ditransitives requires an agent (A), object (O), and extended object (E). However, in Ik, some or all core arguments may be omitted (left implicit) in the surface structure. As such, Ik is not just a pro-drop language (which it is) but also an 'argument-drop' language. Consider these examples:

(39)   *Maꝁotia naa kaudza ntsik.*
       ma-ꝁot-í-a$_{VA}$=naa   kaúdz-a$_O$ ntsí-k^e$_E$
       give-AND-1SG-REAL=PST1   money-NOM   s/he-DAT
       I gave the money to him.

(40)   *Maꝁotia naa kaudz.*
       ma-ꝁot-í-a$_{VA}$=naa   kaúdz-^{a}$_O$ $\varnothing_E$
       give-AND-1SG-REAL=PST1   money-NOM
       I gave the money (to someone).

(41)   *Maꝁotia naa ntsik.*
       ma-ꝁot-í-a$_{VA}$=naa $\varnothing_O$ ntsí-k^e$_E$
       give-AND-1SG-REAL=PST1   s/he-DAT
       I gave (something) to him.

(42)   *Maꝁotia nak.*
       ma-ꝁot-í-a$_{VA}$=nak^a $\varnothing_O$ $\varnothing_E$
       give-AND-1SG-REAL=PST1
       I gave (something) (to somebody).

These four examples show progressively the omission of one or the other—and then all—core arguments from the surface structure (though of course the clause subject is always cross-referenced on the main verb).

9.4 Causative clauses

Syntactically, the Ik causative suffix {-ɪt-} (§7.9.1) changes the valency of the verb by adding a new argument: the causer in the form of the agent (A). For intransitive verbs, the original intransitive subject (S) now becomes the object (O) in the causative construction, for example:

(43) *Fekiaa nk.*   *Fekitetaa ncik.*
      fek-í-a-a   [ŋk-ᵃ]ₛ   fek-it-et-á-á   [ɲci-kᵃ]ₒ
      laugh-1SG-REAL-PRF I-NOM   laugh-CAUS-INCH-REAL-PRF I-ACC
      I'm laughing.   She's made me laugh.

In (43), the S of the first clause (*ŋkᵃ*) becomes the O of the second clause (*ɲcikᵃ*). This is reflected in the case-marking change from the nominative in the first clause to the accusative in the second (due to the fact that 3ʳᵈ person agents in Ik always take direct objects in the accusative case).

For transitive verbs, the original transitive agent (A) becomes the direct object (O) of the new agentive causer which is now (A). And the original direct object becomes an extended object (E) marked with the dative case:

(44) *Ŋabia nka ɲokoti.*
      ŋáb-i-a   [ŋk-a]ₐ [ɲókóti-∅]ₒ
      wear-1SG-REAL   I-NOM   coat-NOM
      I'm wearing a coat.

(45) *Ŋabitieeta ncia ɲokotiik.*
      ŋáb-it-i-et-a   [ɲci-a]ₒ   [ɲókótií-kᵉ]ₑ
      wear-CAUS-PLUR-INCH-REAL I-ACC   coat-DAT
      He makes me wear a coat.

Lastly, for extended transitive verbs, the original transitive subject (A) becomes the direct object (O), while the original direct object becomes the

first extended object (E$_1$) marked with the dative case. And the original extended object (E$_1$) becomes the second extended object (E$_2$), also in the dative case. This construction puts Ik in the company of the relatively few languages worldwide—like Japanese, Turkish, and Kamaiurá—that allow more than one dative noun phrase in the same clause (Dixon 2012:264):

(46)　*Maƙotiaa nka kaudza konie amae.*
　　　ma-ƙot-í-a-a　　　　　[ŋk-a]$_A$ [kaúdz-a]$_O$ [kɔnɪ-ɛ　　ámá-^{e}]$_{E1}$
　　　give-AND-1SG-REAL-PRF　I-NOM　money-NOM one-DAT　　person-GEN
　　　I have given the money to another person.

(47)　*Maƙitiiƙota ncia kaudzoe konie amae.*
　　　maƙ-it-i-iƙot-a　　　　[ɲci-a]$_O$ [kaúdzo-e]$_{E1}$　[kɔnɪ-ɛ　ámá-^{e}]$_{E2}$
　　　give-CAUS-PLUR-AND-REAL I-ACC　money-DAT　　　one-DAT person-GEN
　　　He makes me give money to another person.

9.5　Auxiliary verbs

Two different constructions are here being called 'auxiliary'. One type involves a small subset of verbs that carry aspectual meaning paired with a main verb that carries the lexical semantic content, semantic roles, and argument structure of the whole clause. The second type involves a small set of lexical verbs that, when paired with a nominalized complement, add aspectual meaning to the complement. These are termed 'auxiliary-like'.

9.5.1　Auxiliary verbs proper

The auxiliary verbs 'proper' are lexical verbs in their own right but also double as aspectual auxiliaries. In the Ik auxiliary verb construction, the aspectual auxiliary fills the slot for the main verb and is the only verb marked for subject-agreement, tense, and polarity. The semantic main verb follows in a morphologically defective form. If the clause subject is overt, it comes between the auxiliary and the main verb, making the constituent order of auxiliarized clauses Aux-S-V or Aux-A-V-O, the same order found in

subordinate clauses. The only inflection found on the main verb in an auxiliary construction is the realis suffix {-a}. It remains thus, regardless of the various inflectional suffixes the auxiliary verb may take.

The verbs in (48) form a subset based on the fact that they all aspectually modify a morphologically defective, semantically main verb. The 'anticipative' verb *ŋɔ́r-* 'do early' is most likely related to the proto-Kalenjin verb *ŋɔɔr-* 'foretell' (Rottland 1989). And the verb *sár-* is functionally quite similar to the Turkana auxiliary *-rok-* which Dimmendaal calls the "auxiliary of unexpected state of affairs" in the affirmative (1983:138) and the "unexpected negative perfective" in the negative (1983:457).

(48)   *Ik auxiliary verbs*

	Lexical	Aspectual
erúts-	'be new, fresh'	Recentive
ŋɔ́r-	'do early (already)'	Anticipative
sár-	'still, not yet, no longer'	Durative

The following three examples illustrate these auxiliary verbs. First, in (49) the recentive auxiliary *erúts-* modifies the semantic main verb *ats-* 'come'. Since the auxiliary verb fills the syntactic slot for main verbs, the second-position tense clitic =*noo* attaches to it:

(49)   *Erutsa noo ɲaɓura ats.*
        [erúts-á=noo]$_{AUX}$ ɲaɓur-a$_S$ ats-∅$_V$
        recent-REAL=PST3   maize-NOM   come-REAL
        Maize (i.e. as a crop) came in the not-so-distant past.

In the next example, the anticipative auxiliary *ŋɔ́r-* modifies the main verb *cɛ-* 'kill' which is transitive, taking A and O as arguments. The agent A is omitted but is marked with a subject-agreement suffix on the auxiliary verb:

(50)   *Ŋorata naa cea riyek.*

        [ŋɔ́r-át-a = naa]$_{AUX}$ cɛ-a$_V$ rié-k^a$_O$

        early-3PL-REAL = PST1   kill-REAL   goat-ACC

        They already killed the goat (earlier today).

Transitive verbs like *cɛ-* 'kill' take an object in the accusative case only when the subject is 3-person. In (50), though, it is the intransitive auxiliary verb *ŋɔ́r-* that is marked for 3-person, not *cɛ-*. Still, the object of the clause takes the accusative case. This is because the semantic main verb (V), not the auxiliary (AUX), governs the argument structure of the clause.

This third example shows the affirmative durative Auxiliary *sár-* modifying the intransitive verb *kom-* 'be many':

(51)   *Sarima koma zuk.*

        sár-ím-a$_{AUX}$ kom-a$_V$ zuk^u

        still-1PL.EXC-REAL   many-REAL   very

        We are still very many.

9.5.2 Auxiliary-like verbs

Several Ik verbs add aspectual meaning to a clause, even though they are simply lexical verbs taking a nominal(ized) complement. As such, they are technically not auxiliary verbs but rather auxiliary-like in their semantics:

(52)   *Ik auxiliary-like verbs*

	Lexical	Aspectual
bɛ́ɗ-	'want'	Proximative
itsyák-ét-	'begin'	Inchoative
isé-ét-	'begin'	Inchoative
toɗó-	'land, arrive'	Inchoative
ŋáb-ʊƙɔt-	'finish, end'	Completive
cɛm-	'fight, struggle'	Occupative

The first five verbs in (52) are ambitransitive. But in their auxiliary-like role, they take an object in the nominative or accusative case, depending on the identity of the subject and the syntactic environment. The sixth verb, *cɛm-*, is intransitive, but in the 'occupative' usage, takes a peripheral argument in the instrumental case (see next section). The objects of these verbs can be nouns or nominalized verbs, though in their auxiliary-like function, they are usually nominalized verbs. Here are some examples:

(53)   Proximative: *Beɗia naa rumanon!*
                          bɛ́ɗ-í-a=naa   rumán-on-∅
                          want-1SG-REAL=PST1   fall-INF-NOM
                          I almost fell!

(54)   Inchoative: *Itsyaketaa ɲeryaŋa atsonik.*
                          itsyak-et-á-á   ɲeryaŋ-a   ats-oni-kᵃ
                          begin-INCH-REAL-PRF modernity-NOM come-INF-ACC
                          Modernity has started coming.

(55)   Inchoative: *Iseetataa waanak.*
                          ise-et-át-a-a   wáána-kᵃ
                          begin-INCH-3PL-REAL-PRF prayer-ACC
                          They've started to pray.

(56)   Inchoative: *Toɗoyuo roɓa ats'esia jejeikae.*
                          toɗó-í-o   roɓ-a   áts'-ɛ́sɪ-a   jéje-ika-ᵉ
                          land-3SG-SEQ people-NOM chew-INF-ACC mat-PL-GEN
                          And people began to eat leather mats.

(57)   Completive: *Ŋabuƙotima bee zikesa ɗeretsae.*
                          ŋáb-ʊƙɔt-ím-á=bee   zík-ɛ́s-a   ɗɛrɛtsa-ᵋ
                          finish-COMP-1PL-REAL=PST2 tie-INF-NOM kindling-GEN
                          We finished tying kindling (yesterday).

9.5.3 Occupative aspect

Lastly, Ik has a construction whose function approximates the progressive aspect of many languages (if English translations are any indication). It consists of the intransitive verb *cɛm-* 'fight, struggle' plus a nominal word as a peripheral argument in the instrumental case. This aspect is called 'occupative' here because, in addition to implied progressive activity, it communicates an ethnosemantic nuance of intensity (Serzisko 1992:79) and struggle (hence *cɛm-* 'struggle')—that is, of being engaged or 'occupied'.

Examples of the occupative aspect include the following sentences:

(58) *Cemia hoeso inoe na.*
      cɛm-í-á   ho-és-ó   ínó-e = na
      struggle-1SG-REAL   cut-INF-INS   animal-GEN = DEM.SG
      I am busy dressing this animal.

(59) *Cemesoo ŋwaata terego nda babat.*
      cɛm-ɛ́s-ɔ́-ɔ   ŋw-áát-a   terég-o   ń⁺da báb-atⁱ
      fight-IPFV-3SG-SEQ   mother-3SG-NOM   work-INS   with father-3SG[OBL]
      And his mother was busy working along with his father.

(60) *Itelisina wika cematikee waak.*
      itél-ísin-a   wik-a   cɛm-áti-ké = e   wáák-°
      watch-1PL.INC-REAL   children-NOM   fight-3PL-SIML = DP   play-INS
      We're watching children busy playing (with toys).

(61) *Cemeese koto tsaŋeso ceki.*
      cɛ́m-ɛ́-ɛsɛ = kɔ́tɔ́   tsáŋ-és-o   cekí-∅
      fight-SPS = then   annoint-INF-INS   woman-GEN
      And then they got busy annointing the woman.

9.6 Copula clauses

Ik has three verbs that qualify as copula verbs in that they have relational rather than referential meanings. One is *mɪt-*, a copula verb that covers the semantic relations of identity and possession (Dixon 2010:159). In Serzisko's analysis, *mɪt-* also denotes 'ascription/description' (*Zuschreibung*) versus the 'specification' (*Spezifizierung*) handled by the copulative case (1992:55ff). The second copula is *ir-*, a verb with a narrow expression of attribution, and the third is *i-*, a Copula verb that covers existence and location. All three copula verbs can take two arguments, the copula subject (CS) and the copula complement (CC). Although *i-*, when used for the existence relation, takes only a copula subject. The following sentences exemplify these verbs (underlined in the data) and the semantic relations they encode:

(62) Identity: *Mitima ɲot.*

  mɪt-ím-á   ŋgw-a$_{CS}$ ɲɔtˀ$_{CC}$
  be-1PL.EXC-REAL we.EXC-NOM   men[OBL]
  We are men.

(63) Possession: *Mita ɗa nci.*

  mɪt-á   ɗ-a$_{CS}$ ɲci-∅$_{CC}$
  be-REAL one-NOM   I-GEN
  This one is mine.

(64) Attribution: *Ira ntsa tiye.*

  ir-a   nts-a$_{CS}$ tíyé$_{CC}$
  be-REAL it-NOM like.this
  It's like this.

(65) Location: *Iyata nta awak.*

  i-át-a   ńt-á$_{CS}$ awá-kᵉ$_{CC}$
  be-3PL-REAL they-NOM   home-DAT
  They are at home.

(66)   Existence: *Iya Ɲakuɟ.*

                      i̠-a   ɲakuɟ-ᵃ_{CS}

                      be-REAL God-NOM

                      God is (there).

Examples (62)-(66) show that the suject (CS) of Ik copula clauses is treated syntactically like a typical S or A subject: 1) It takes the nominative case; 2) though explicitly mentioned in these example, the CS can be omitted, leaving its trace in the form of subject-agreement suffixes; and 3) it fills the canonical syntactic slot for a subject, just after the main verb.

As for the CC, the case it takes depends on the relation the copula is encoding. In the 'identity' relation, the CC is in the oblique case. In the 'possession' relation, it is in the genitive case. (The copula *ir-* expressing attribution is a special case: Its CC is an adverb like *ńtí* 'how' or *tíyé* 'like this' instead of a noun phrase.) In the 'location' relation, the CC takes the dative case, while in the 'existence' relation, no CC is present. The following table captures how these copular relations are mapped onto copular arguments and the respective nominal cases they assume:

(67)   *Case marking in copula constructions*

	Copula	CS	CC
Identity	mɪt-	NOM	OBL
Possession	mɪt-	NOM	GEN
Attribution	ir-	NOM	adverb
Location	i-	NOM	DAT
Existence	i-	NOM	—

The three copulae behave like typical intransitive verbs in terms of the type of inflectional and derivational augmentations they can undergo. Between the three, though, they do differ in what suffixes they can cooccur with. For example, *mɪt-* can be causativized into the transitive *mɪt-ɪt-ɛ́s-úƙɔtʼ* 'to cause to become', while the other two cannot. The completive suffix {-uƙɔtí-} can

modify *mɪt-* and *ir-* (*mɪt-ɔn-ʊkɔtˊ* 'to become' and *ir-on-ʊkotˊ* 'to become like') but not to *i-* (**i-on-ʊkotˊ). The impersonal passive suffix {-aní-} is commonly found with *i-* but not with the other two. Otherwise, none of the three Ik copulae have any irregular forms in their paradigms. Neither do they have other functions or homonymns in the grammar.

The three Ik copula verbs can be negated in the standard way, using the realis negating verbs *ńt-* and *ma-* or the sequential negator *moo*, for example:

(68)   *Nta miti abaŋ.*

ńt-á   mɪt-ɪ   abáŋ

not-REAL   be-3SG   my.father[OBL]

He is not my father.

(69)   *Maa bee iri nti.*

má-á=bee   ir-i   ńtí

not-REAL=PST2   be-3SG   ADV

It wasn't like that.

(70)   *Moo iyidi koo ke.*

mo-o   i-ídi   kɔɔ́=kɛ

not-SEQ be-2SG   there=DEM.SG.DIST

And then you'll not be over there.

In terms of etymology, Ehret links the copula *mɪt-* (which is *mɛt-* in the Kuliak language So; Carlin 1993:65) to the Proto-Nilo-Saharan root **méːy* 'to do, make' (2001:281). But how that may have developed into a copula is not obvious. Also unexplained is the link between *i-* and the Proto-Central-Sudanic **ngwi* 'to be (somewhere)' > Central Sudanic **-i* (Ehret 2001:371). In neighboring Teso-Turkana languages, two of the three Ik copula verbs have what appear to be close cognates: Ik *i-* ↔ Teso-Turkana *(a)yákáɣ̀* 'to be somewhere' and Ik *ir-* ↔ *(a)rakaɣ* 'to be something/ somehow'.

Ik also has a pair of negative copula verbs: *bení-* 'not be (something)' and *bɪrá-* 'not be (somewhere)'. The first negates *mɪt-* and *ir-*, while the second negates *i-*. Both verbs have other, lexical meanings. The verb *bení-* can mean 'be unique', while *bɪrá-* can mean 'lack'. In their capacity as negative copula verbs, these two verbs take complements with a variety of cases:

(71)   *Negative copula verbs*

	Copula	CS	CC
Identity	bení-	NOM	COP/OBL
Possession	bení-	NOM	GEN
Attribution	bení-	NOM	adverb
Location	bɪrá-	NOM	ABL/ACC
Existence	bɪrá-	NOM	(ABL)

And the following examples illustrate actual usage of the negative copulae:

(72)   *Mita bi.*   *Benia buk.*
       mɪt-a   bi   beni-á   bu-kᵒ
       be-REAL you.SG[OBL]   not.be-REAL you.SG-COP
       It's you.   It's not you.

(73)   *Ira ti.*   *Benia ti.*
       ir-a   tí   beni-a   tí
       be-REAL like.this   not.be-REAL like.this
       It's like this.   It's not like this.

(74)   *Iya nee na.*   *Biraa nee na.*
       i-a   néé = na   bɪra-a   néé = na
       be-REAL here = DEM.SG   not.be-REAL here = DEM.SG
       She's here.   She's not here.

9.7 Subordinate clause structure

Subordinate (dependent) clause structure differs from that of unmarked main clauses. How it differs depends on the type of clause involved. Conditional and hypothetical subordinate clauses contain sequential verbs that, by definition, must follow in sequence from a preceding verb (see §10.2). This condition is satisfied in subordinate clauses by the subordinating conjunction being placed in the clause-initial verbal slot, followed by a subject in the nominative case, followed by the sequential verb which is actually the main verb of the subordinate clause.

In (75), the conjunction *na=* 'if' fills the syntactic verbal slot (V), while *cɛrɔ*, the clause's real verb, is 'co'-subordinate to it (V2). In this way, sequential subordinate clauses attempt to preserve surface-level VSO order, although there is a mismatch between deep and surface structure. This analysis tries to account for why an otherwise preverbal subject is in the nominative case, when all other preverbal subjects in the language take accusative case:

(75)   *Na soreima ceyoo poposaa...*

[na =]$_V$soré-ím-a$_A$ cɛ-ɪ-ɔ$_{V2}$ pɔpɔsa-á$_O$

CONJ = boy-child-NOM   kill-3SG-SEQ lizard-ACC

If a boy kills a lizard,...

Apart from ones with sequential verbs like in (75), all other subordinate clauses in Ik have an SVO consituent order—SV for intransitive and AVO for transitive. This SVO order recalls the Surmic language Tennet which also has a VSO order in main clauses but SV in intransitive subordinate clauses (Dimmendaal 2010:33). And like in Dhaasanac (Tosco 2001:14) and Teso-Turkana languages, many subordinate clauses in Ik have the structure of a relative clause, with the subordinating conjunction being based on relative pronouns. For example, in the next two sentences, the conjunction *noo* introducing them is identical to the remote past relative pronoun. Note the respective constituent orders in these two temporal dependent clauses:

(76) *Noo ŋokia epad,…*

[noo	ŋókí-a$_S$	ep-á=d^e$_V$]$_{TEMP}$…	INTRANSITIVE=SV
CONJ.PST3	dog-ACC	sleep-REAL=DP	

When the dog was sleeping,…

(77) *Noo ŋokia ats'ee okak,…*

[noo	ŋókí-a$_A$ áts'-ɛ́=ɛ$_V$	ɔká-k^a$_O$]$_{TEMP}$… TRANSITIVE=AVO
CONJ.PST3	dog-ACC gnaw-REAL=DP	bone-ACC

When the dog gnawed the bone,…

Complement clauses (§9.13.1), though subordinate themselves, make another exception to the SVO order. Since they are embedded main clauses, they retain the VSO constituent order of non-embedded main clauses. Such clauses are introduced by the complementizer *toimɛna/toimɛnɪ-* 'that', which, since it is a noun and argument of the matrix clause, takes case suffixes:

(78) *Hyeiyaa toimena epa ŋok.*

ɸye-í-á	toimɛn-a	[ep-a$_V$	ŋók-^{a}$_S$]$_{COMPL}$
know-1SG-REAL	COMPL-NOM	sleep-REAL	dog-NOM

I know that the dog is sleeping.

(79) *Hyeiyaa toimena ats'a ŋoka oka.*

ɸye-í-á	toimɛn-a	[áts'-á$_V$	ŋók-á$_A$	ɔká-k^a$_O$]$_{COMPL}$
know-1SG-REAL	COMPL-NOM	gnaw-REAL	dog-NOM	bone-ACC

I know that the dog is gnawing the bone.

Another defining property of Ik subordinate clauses is that all core arguments (A/S/O) are marked with the accusative case. Again, this is similar to Tennet, where main clauses have a nominative-accusative case-marking system, while in dependent clauses, this switches to ergative-absolutive (Dimmendaal 2010:33). Also in this connection, the Saharan language Tubu, which has Differential Object Marking, an object is more likely to be marked accusative if not expressed in its normal position (König

2008:40, cited in Dimmendaal 2010:32). In other words, accusative case is reserved for pragmatically marked positions. So in Ik, the accusative marking on subjects (A/S) may have something to do with the subject being in a pragmatically marked slot, that is, before the verb. The next two examples illustrate this with intransitive (80) and transitive (81) clauses:

(80) *Noo ncia epiaade kuru,...*
   [noo   ɲci-a$_S$ ep-í-á＝de$_V$ kurú-∅]$_{TEMP}$
   CONJ.PST3   I-ACC   sleep-1SG-REAL＝DP   shade-ABL
   When I slept in the shade,…

(81) *Noo ncia ats'iaade emek,...*
   [nóó   ɲci-a$_A$ áts'-í-a＝de$_V$ emé-k^a$_O$]$_{TEMP}$
   CONJ.PST3   I-ACC   gnaw-1SG-REAL＝DP   meat-ACC
   When I gnawed on the meat,…

The type of case-marking neutralization exhibited in (80)-(81) violates König's typological prediction #7 for African languages with case: "If the language is verb-initial or verb-medial, then the 'no case before the verb' rule applies" (2008:281). The Surmic language Tennet, spoken not far from Ik in South Sudan, also violates this prediction, but only partially. But as hinted at above, normal case marking is retained in Ik subordinate clauses with sequential aspect verb forms. Note that in the following example, all core arguments bear the nominative case suffix (including the object):

(82) *Na nka ats'ia ema,...*
   [na＝ŋk-a$_A$ áts'-ɪ-a$_V$ em-a$_O$]$_{COND}$
   CONJ＝I-NOM   gnaw-1SG-SEQ   meat-NOM
   If I gnaw on meat,…

9.8 Relative clauses

Because many Ik subordinate clauses are based on the relative clause construction, relative clauses need to be discussed without further delay. To begin with, Ik exhibits a canonical relative clause construction having the following characteristics (the first four drawn from Dixon 2010:314):

1. The relative clause (RC) is embedded in a main clause (MC), making up one full sentence.
2. The underlying structure of the RC and MC share a common grammatical argument (CA).
3. The RC functions as syntactic modifier of the CA in the MC.
4. The RC has the basic structure of a clause, with a predicate and the required nominal arguments (as well as peripheral arguments).
5. All core arguments in the RC are marked in the accusative case, just as in all other subordinate clauses (except sequential ones).

In view of these characteristics, compare the following two sentences. The first is a simple MC in the past tense; the second is the same MC but modified by an RC:

(83) *Ŋabiya noo tukak.*

[ŋáb-i-a＝noo   tuka-kᵃ]_MC

wear-PLUR-REAL＝PST3   feather-ACC

He used to wear a feather.

(84) *Ŋabiya noo tukaa na buɗam.*

[ŋáb-i-a＝noo   tuka-a＝[na   buɗám-∅]_RC]_MC

wear-PLUR-REAL＝PST3   feather-ACC＝REL.SG black-REAL

He used to wear a black feather (lit. 'a feather which is black').

The common argument (CA) shared between the MC and RC in (84) is *tuka-* 'feather'. In the MC, the CA is an object marked in the accusative case, while

in the RC, it is the implied 3sɢ subject of the adjectival predicate *budám-ón* 'to be black'. The RC modifies *tuka-* in the MC by specifying or restricting the reference of that argument (i.e., it is no longer just any feather; it is a feather *which is black*).

Ik only has restrictive relative clauses, the kind illustrated in (84) above. As such, they can only provide information about the CA that helps restrict its reference to an individual entity. Non-restrictive relative clauses that simply provide more information about an already known CA are not grammatical in the language. In the situation where a proper noun is modified by an RC in Ik, it implies that there are two or more people, places, or things with that particular proper name. Compare the following examples:

(85) *Atsaa ama na mita ncieebam.*
      [ats-á-á   ám-á = [na   mɪt-a   ɲci-ebám]ᴿᶜ] ᴹᶜ
      come-REAL-PRF   person-NOM = REL.SG be-REAL I[OBL]-friend[OBL]
      Here comes the guy that is my friend.

(86) *Atsaa Lotuka na mita ncieebam.*
      [ats-á-á   lotuk-a = [na   mɪt-a   ɲci-ebám]ᴿᶜ] ᴹᶜ
      come-REAL-PRF   Lotuk-NOM = REL.SG be-REAL I[OBL]-friend[OBL]
      1) **Here comes Lotuk, who is my friend.
      2) Here comes the (particular) Lotuk that is my friend.

9.8.1 Common argument

The fullest statement of the common argument (CA) in an Ik RC construction is found in the main clause (MC). There it occurs as a noun phrase: noun, pronoun, or demonstrative. The following examples illustrate the CA as a noun, demonstrative pronoun, and a locative adverbial demonstrative, respectively. In (87), the CA is the noun *ínó-* 'animal(s)', while in (88), it is the demonstrative pronoun *kiɗiásaí-* 'others'. In (90), the CA is the deictic locative adverbial demonstrative *naí-* '(t)here':

(87) *Inoa ni Icea kakiya ntuo ɗa:*

[ínó-á_CA = [ni   icé-á   ƙaƙ-í-á]_RC   ńtú-o   ɗ-a]_MC

animal(s)-NOM = REL.PL   Ik-ACC   hunt-PLUR-REAL   they-COP   ones-NOM

The animals that the Ik hunt, these are they:

(88) *Nda kiɗiasai ni moo imaarosat.*

ń⁺da   kiɗiásai_CA = [ni   mó-o   ɪmaar-ɔs-át^i]_RC

and   others[OBL] = REL.PL   not-SEQ   count-PASS-3PL

And others who are not counted.

(89) *Kaa tsabo nayee noo itsyaketad.*

[ƙa-a   tsábo   naí-é_CA = [noo   itsyak-et-á = d^e]_RC]_MC

go-REAL   probably   where = REL.SG.PST3   begin-INCH-REAL = DP

He is probably going to where he started from.

The CA in the main clause can have any grammatical function, being either a core argument (S/A/O) or any peripheral argument. As a result, the CA can take any case required by the clause syntax. (90) below presents the CA *ɟákáma-* 'elder' as the intransitive subject of the verb *ats-* 'come'. And (91) shows the peripheral CA *kamí-* 'year' in the instrumental case since it is giving the time setting for the main clause in which it is found:

(90) *Atsuo jakama noo ntanee taa ndo...*

[ats-u-o   ɟákám-a_CA = [noo   nt-an-é = e   taa   ndo]_RC]_MC

come-3SG-SEQ   elder-NOM = REL.SG   call-IPS-REAL = DP   QUOT   who[OBL]

And then came the elder who was called um, who...

(91) *Kaino noo iyiaade atik,...*

kaɪn-ɔ_CA = [nɔɔ   i-í-á = de   átí-k^e]_RC

year-INS = REL.SG   be-1SG-REAL = DP   FILL-DAT

The year in which I was at the, uh...

Likewise, in the relative clause itself, the CA can also have any core or peripheral function. Since the CA is only stated in the MC and not in the RC, it is not relevant to comment on the nominal case in which the CA in an RC may occur. If it is the subject of the RC, the CA is cross-refenced on the verb with subject-agreement pronominals. If it is the object, then it is inferred from the grammatical context. If it is a peripheral argument, it is cross-referenced on the verb with the dummy pronominal { = ´dɛ}. But regardless of what type of argument the CA is in the RC, it is represented by one of the relative pronouns which are the topic of the next section, §9.8.2.

The following three examples show the CA in relative clauses functioning as subject, object, and peripheral argument, respectively. The CA in (92), *ámá-* 'person', acts as the subject of the verb *iwák-* 'holler' in the MC, while in the RC, it is the agent of the causativized verb *tsídz-it-ét-* 'flush out':

(92) *Ama na tsamu tsidziteta inoa iwakuk.*

    [ám-á = [na   tsídz-it-et-a   ínó-a]_{RC}   iwák-ú-kᵒ]_{MC}

    person-NOM = REL.SG carry-CAUS-VEN-REAL animal-ACC holler-3SG-SEQ

    The person who flushes out an animal hollers an alarm.

By contrast, the CA in (93) is a core argument marked with the dative case in the main clause (*dakú-é*) but the object of the transitive verb *kam-ʋƙɔt-* 'take hold of' in the relative clause. The non-CA agent of the RC, *buɗámóniicéá*, takes the accusative case as would any core argument:

(93) *…dakwee sina Buɗamoniicea kamuƙota na.*

    dakú-é = [sına   buɗám-óni-icé-á   kam-ʋƙɔt-a]_{RC} = na

    stick-DAT = PST2.REL.SG black-INF-AGT.PL-ACC hold-COMP-REAL = DEM.SG

    [Beware of] this stick that Africans have taken hold of (i.e. guns).

Lastly, the noun phrase in (94), introduced by the preposition *kóteré* 'because of', marks the CA *kaɩní-* 'year' as peripheral argument in the oblique case. In the relative clause, this CA is would also be a peripheral

argument but one marked with the instrumental case (since it is a time concept). Because of that, its absence in the relative clause is marked with the dummy pronoun on the transitive verb *kʊp-ʊƙɔt-* 'burn up':

(94) *Kotere kaini noo fetia kʊpʊƙotee edĩk.*
      kótéré kaɪnɪ = [nɔɔ   fetí-á   kʊp-ʊƙɔt-ɛ́ = ɛ   edí-kᵃ]ᵣᴄ
      because year[OBL] = REL.SG sun-ACC burn-COMP-REAL = DP grain-ACC
      Because of the year in which the sun burnt up the grains.

9.8.2 *Relative pronouns*

Relative clauses in Ik can be recognized by three criteria: 1) the intonation contour in which the MC and RC are treated as one sentence prosodically, 2) the presence of relative pronouns at the beginning of the RC, and 3) the non-canonical constituent order within the RC. The particles introducing relative clauses are treated here as relative 'pronouns' instead of 'markers' since they are not invariable and do communicate some information, namely the grammatical number of the common argument and the tense of the relative clause. These Ik relative pronouns are already discussed in §5.6 but warrant further mention here as well. The table below presents the relative pronouns according to number and tense:

(95) *Ik relative pronouns*

	Singular	Plural
NON-PAST	= na	= ni
PST1	= náa	= níi
PST2	= sɪna	= sini
PST3	= nɔɔ	= nuu

The relative pronouns are analyzed as enclitics because they form a phonological word with the preceding noun (evidenced by the post-lexical vowel harmony they participate in). And based on the forms in (95), it is evident that the Ik relative pronouns are closely related to the temporal

nominal demonstratives (see §8.2.2). Quite so, they are identical in form, the only difference being that since relative pronouns never appear clause-finally, they consequently do not have final forms. Like the demonstratives they originate from, the relative pronouns communicate number and tense.

For example, in (96) below, the relative pronoun =*na* conveys two bits of information about the RC construction's common argument *ŋkákâ-* 'food': 1) It is viewed as singular, and 2) the state predicated of it in the RC is in the present time or in general (gnomic). Likewise, in (97), the relative pronoun =*nuu* communicates about the CA *roɓa-* that 1) it is plural, and 2) the action predicated of it took place in the remote past:

(96)   *Mita daŋa nkaka Icee ne efa zuk.*
        [mɪt-a   dáŋ-á   ŋkákâ   icé-é = [na   ɛf-∅-]_{RC}]_{MC}
        be-REAL white.ants-NOM food[OBL]   Ik-GEN = REL.SG   tasty-REAL
        White ants are an Ik food that is tasty.

(97)   *Atsaa roɓa nuu ƙa.*
        [ats-á-á   roɓ-a = [nuu   ƙa-∅-]_{RC}]_{MC}
        come-3SG-PRF   people-NOM = REL.PL.PST3   go-REAL
        The people who went have come.

9.8.3   Relative clause structure

Relative clauses in Ik always immediately follow the CA in the main clause, regardless of constituents before the main clause or after the relative clause. Normally, the order of constituents in a main clause is VS or VAO, but when the CA is the subject of the main clause, it can be fronted and then followed by the relative clause and the main verb, making the constituent order SV or AVO. This can be seen in (92) above as well as in the following:

(98)   *Ama na cea basaurek, isokuk.*

    [ám-á = [na   cɛ-a   basaúré-kᵃ]_{RC} ‖ isók-ú-kᵒ]_{MC}

    person-NOM = REL.SG   kill-REAL   eland-ACC   go.early-3SG-SEQ

    The person who kills an eland goes early (i.e. before others).

The sentence in (98) is a version of (99) below in which the subject has been put into special focus for pragmatic or stylistic reasons. (99) represents the unmarked constituent order for the same proposition.

(99)   *Isokuo ama na cea basaurek.*

    isók-ú-o   ám-á = [na   cɛ-a   basaúré-kᵃ]

    go.early-3SG-SEQ   person-NOM = REL.SG   kill-REAL   eland-ACC

    The person who kills an eland goes early.

The constituent order within the relative clauses themselves also departs from that of unmarked main clauses. After the relative pronoun, then comes the subject (if mentioned) and the verb followed by any other overtly mentioned core arguments, peripheral arguments, adverbs, etc., making the RC constituent orders as follows: (rel)(S)V for intransitive clauses and (rel)(A)V(O) for transitive clauses.

Core arguments (A/S/O) can only be overt in an RC if they are not the CA of the whole RC construction. For example, in (100), the CA *tuka-* 'feather' is recapitulated in the RC as *ntsí-* 'it', resulting in an ungrammaticality:

(100)   *****Ŋabiya noo tukaa na ntsia budam.*

    **[ŋáb-i-a = noo   tuka-a = [na   ntsí-á buɗám-∅]_{RC}]_{MC}

    **wear-PLUR-REAL = PST3 feather-ACC = REL.SG it-ACC black-REAL

    **He used to wear a black feather (lit. 'a feather which it is black').

Likewise, in (101), the CA *ínó-* 'animals' is recapitulated in the RC as *ńtí-* 'they' with the resulting structure being ungrammatical:

(101) ****Inoa ni Icea kakiya ntik.*

     **ínó-a = [ni   icé-á   kak-i-a   ńtí-kᵃ]_RC

     **animals-NOM = REL.PL Ik-ACC hunt-PLUR-REAL they-ACC

     **The animals that the Ik hunt them.

Ik relative pronouns are omissable but only in the non-past. In the three past tenses, they are retained because they encode the tense of the RC. This is similar to Turkana where the full form of relative markers are used only in past tenses, a truncated form being used in the non-past (Dimmendaal 1983:308). Further conditions for the omission of Ik relative pronouns include: 1) When the CA in the MC is a demonstrative pronoun (§5.5), 2) when the CA in the MC is the head of a verbless clause, or 3) when the CA in the MC is followed by an anaphoric pronoun. In (102), an RC modifies the demonstrative pronoun *da*; note the absence of a relative pronoun:

(101) *Tabiduo da taba tasapetik.*

     táb-idu-o   ɗ-a   [táb-a   tasapetí-kᵃ]_RC

     touch-2SG-SEQ one-NOM   touch-REAL initiation-ACC

     And (you) touch upon those (i.e. stories) that are about initiation.

In the next example, the MC is a verbless clause whose head is a noun marked with the copulative case. This noun is functioning as the CA. Here again, no relative pronoun is present:

(102) *Ntsuo atsimee awak.*

     ntsú-ó   [ats-ím-é = e   awá-kᵉ]_RC

     it-COP   come-1PL.EXC-REAL = DP home-DAT

     It's (the hour) (when) we come home.

In this third and final example, the singular anaphoric pronoun =ꞌ*déé* comes between the CA and the RC, with no intervening relative pronoun:

(103) *ama dee bara*

ám-á = ꞌdéé   [bar-a]_{RC}

person-NOM = ANPH.SG   rich-REAL

that rich person (lit. 'that person (who is) rich')

The number of verb-form types allowed in an Ik relative clause is restricted. For positive polarity, only realis forms are allowed. For negative polarity, only irrealis forms are allowed. Other forms, like sequential, simultaneous, and optative, cannot function as the predicate of a relative clause.

Relative causes can be negated. To negate one, the sequential negator *moo* (and allomorph *noo*) is used just after the relative pronoun. If the subject of the relative clause is overt, then it follows the negator. Being negated, the main verb of the RC then appears in its negative (irrealis) form, as in:

(104) *jejeika dii nuu moo epanid*

jéje-ik-a = ꞌdíí = [nu-u   mo-o   ep-aní = dᵉ]_{RC}

skins-PL-NOM = ANPH.PL = REL.PL   not-SEQ   sleep-IPS = DP

those sleepings skins that were not slept on

(105) *Iya kona iresie na moo ɲotoa ñyeat.*

i-a   kɔn-a   írési-e = [na   mo-o   ɲɔtɔ́-á   ñye-átⁱ]_{RC}

be-REAL   one   ceremony-GEN = REL.SG   not-SEQ   men-NOM   know-3PL

There is one ceremony that men do not know.

9.9 Adverbial clauses

Besides relative clauses that modify noun phrases, several other types of subordinate clause are used adverbially to modify other, main clauses. These adverbial clauses include the following nine types: temporal, simultaneous, manner, purpose, result, reason, conditional, hypothetical, and concessive clauses. The following sections discuss each type briefly.

9.9.1 Temporal

Main clauses in Ik may be modified by a subordinate temporal clause preceding or following it. Such clauses locate the proposition of the main clause in time, which is reflected grammatically in tense. Past and non-past tense are encoded by tensed subordinating conjunctions. Non-past tense is encoded by the conjunction *nɛ́ɛ́* and optionally with non-past adverbs.

Ik temporal clauses have the same structure as relative clauses and thus seem to be an adaptation from them. As a whole, the temporal clause stands in place of what would be a specific time word like 'last year', 'today', or 'next week', all of which would be peripheral arguments marked with the instrumental case. So temporal clauses have the structure of 'the [X time unit] in which…', better translated as 'when…'. Because time concepts are peripheral arguments in Ik, their absence leaves a trace on the verb in the form of the dummy pronoun enclitic {=ˊdɛ}. The verb in a temporal clause is a realis form with the dummy pronoun which indicates that the relative pronoun *qua* subordinating conjunction stands for a time concept.

(106)   *Ik temporal subordinating conjunctions*

		Past	Past perfect
Non-past	CONJ	(nɛ́ɛ́)	
Recent past	CONJ(.PST1)	náa	nanáa
Removed past	CONJ(.PST2)	sɪna	nábee
Remote past	CONJ(.PST3)	noo	nanoo

In first example sentence below, the removed past temporal conjunction *sɪna* introduces the temporal clause modifying its following MC:

(107)   *Sina enukotiade ntsia, ŋaxetuk.*

[[sɪna   en-uƙot-í-a=de   ntsí-á]_TEMP   ŋáʃ-ɛ́t-ʊ-kɔ]_MAIN

CONJ.PST2   see-AND-1SG-REAL=DP   s/he-ACC   startle-INCH-3SG-SEQ

When I saw her (yesterday), she got startled.

In the second example below, the remote past-perfect temporal conjunction *nanoo* introduces the temporal subordinate clause:

(108) *Nanoo ɲamatsarikaa kainie dee itsyaketatee,*

    [[<u>nanoo</u>   ɲámátsar-ıka-a kaıní-ɛ́=ˈdɛ́ɛ́   itsyak-et-át-e=e]_{TEMP}

    CONJ.PST3.PRF sign-PL-ACC   year-GEN=ANPH begin-INCH-REAL=DP

    ts'eyoo inw.

    ts'e-i-o   ínw-ᵃ]_{MAIN}

    die[PL]-3SG-SEQ animals-NOM

    When signs of that year had (already) begun, animals died.

Another type of temporal subordinate clause is introduced with the conjunction *nɛ́ɛ́* and follows the main clause. This type of temporal clause has an extra nuance of conditionality, making its meaning 'if/when' rather than strictly 'when'. Examples include the following:

(109) *Mayuo ƙwazikaa ngwee*

    [ma-i-o   ƙwáz-ika-a   ŋgó-é

    give-3SG-SEQ   clothing-PL-ACC we.EXC-DAT

    nee tsamu ŋabuƙotanee teregik.

    [<u>nɛ́ɛ́</u>   tsamʊ   ŋáb-ʊƙɔt-an-é=e   terégi-kᵃ]_{TEMP}]_{MAIN}

    CONJ   ADV   finish-COMP-IPS-REAL=DP   work-ACC

    And he gave us clothing, just if/when work was finished.

(110) *...nda koto ima nee fara zeiƙotad.*

    ńda=koto ima   [<u>nɛ́ɛ́</u>   fara   ze-iƙot-á=dᵉ]_{TEMP}

    and=then child[OBL] CONJ   FUT3   big-COMP-REAL=DP

    ...and then the child, when it gets big in the future.

9.9.2 Simultaneous

A main clause can also be modified by a preposed simultaneous subordinate clause. The predicate of a simultaneous clause is a verb in the simultaneous aspect, marked by the suffix {-kɛ}. Such clauses are introduced with the conjunction *na =* (if in a narrative) or *náá* (if in a hypothetical/conditional sense). Some examples include the following:

(111)   *Na ŋabuƙotie, ʑikini ntsia deikao.*
        [na = ŋáb-ʊƙɔt-ɪ-ɛ]_{SIML}   zík-ínɪ   ntsí-á   dɛ-ɪka-ˀ
        CONJ = finish-COMP-3SG-SIML   tie-SEQ   s/he-ACC   leg-PL-ABL
        When he finished, they tied him up by the legs.

(112)   *Naa enanie ts'iƙak, gonuo ama dee.*
        [náa   en-an-í-ɛ́   ts'ɪƙá-kᵃ]_{SIML} gon-u-o   ám-á = ꜜdéé
        CONJ   see-IPS-3SG-SIML   bee-ACC   look-3SG-SEQ person-NOM = ANPH
        When bees are seen, that guy takes a look.

Subordinate clauses with non-finite verbs in the simultaneous aspect are also attested after the matrix clause. In this position, they function in one of the language's two clause-chaining strategies (see §10.2.2). Clause-chaining is a syntactic and discursive operation. At the pragmatic level, chained simultaneous clauses can be construed as having a 'simultaneous' or 'manner' role in modifying the matrix clause. Choosing between the two is really a matter of pragmatic interpretation. Chained simultaneous clauses with a 'manner' interpretation are treated in the next section. Some examples of ones with a 'simultaneous' interpretation are given here below.

But first note that if the subject of a post-posed simultaneous clause is an overt argument in the main clause, it must take whatever case the main clause requires. This differs from the usual situation in subordinate clauses whereby the preverbal subject typically is in the accusative case. In the

following two examples, the subjects of both simultaneous clauses are in the nominative case because the main clause verbs are not 3-person:

(113) *Ogoimaa korobaikwa ts'eatik.*

      ógo-ima-a   kɔrɔ́b-a-ikw-a   [ts'e-áti-kᵉ]ₛᵢₘₗ

      leave-1PL.EXC-SEQ   calf-SING-PL-NOM die[PL]-3PL-SIML

      And we left the calves dying.

(114) *Enuƙotia bee bia cemidie tokob.*

      en-uƙot-í-á = bee   bi-a   [cɛm-ídɪ-ɛ   tɔkɔb-ʔ]ₛᵢₘₗ

      see-AND-1SG-REAL = PST2 you.SG-NOM fight-2SG-SIML   farming-INS

      I saw you farming yesterday.

9.9.3 Manner

'Manner' adverbial clauses add some detail about the way the state or activity expressed by the main clause is actualized. Ik employs two types of manner clauses: 1) A post-posed clause with a simultaneous verb form, and 2) a clause introduced by the morphologically complex conjunction *naítá* 'since, how' followed by a realis verb with the dummy pronoun { = ´dɛ}.

The following two illustrate the first type of manner clause. In (115), the addressee of the imperative is directed to eat some things in such a manner that they be one-by-one. Then in (116), the person being spoken of is described as going somewhere in a limping manner. Note that while both subordinate clauses indicate an action simultaneous to that in the matrix clause, an overall 'manner' interpretation seems most appropriate:

(115) *Nƙe koniatik.*

      ŋƙ-e   [kón-í-áti-kᵉ]ₘₐₙₙₑᵣ

      eat-IMP.SG   one-PLUR-3PL-SIML

      Eat (them, they being) one-by-one.

(116)   *Kaa naa itsoɗik.*

    ƙa-a = náa   [itsóɗ-í-kᵉ]ₘₐₙₙₑᵣ

    go-REAL = PST1   limp-3SG-SIML

    He went limping.

In many instances what appear to be adverbs in Ik are actually post-matrix-clause simultaneous clauses with an impersonal 3SG subject. For example, in (117), the subject of the simultaneous verb *maráŋíkᵉ* is neither the person giving nor receiving the command. The impersonal 3SG subject instead expresses the favorable circumstances desired in the command to 'hold well'. Similarly, the subject of the simultaneous verb *hábie* in (118) cannot also be the subject of matrix clause. It could, however, be either the adjunct *terégo* or an impersonal 3SG subject. Either the whole process of getting to work is 'very hot', or the work itself is 'hot':

(117)   *Tire maraŋik!*

    tír-é   [maráŋ-í-kᵉ]ₘₐₙₙₑᵣ

    hold-IMP.SG good-3SG-SIML

    Hold it (it being) well!

(118)   *Cemetataa terego habie pun!*

    cɛm-ɛt-át-a-a   terég-o   [háb-i-e   pʊn]ₘₐₙₙₑᵣ

    fight-INCH-3PL-REAL-PRF work-INS   hot-3SG-SIML   IDEO

    They have gotten busy working really hard (lit. 'hot')!

The second type of manner clause more precisely conveys the notion of 'manner'. It does this through the use of the conjunction *naítá* 'how, as', followed by verb bearing the dummy pronoun clitic {=ˊdɛ} which represents a missing argument within the subordinate clause.

In the first example (119), the speaker intends to do something in the same manner as the addressee. Then in (120), the addressee is encouraged to wait and see the manner in which some issues will become resolved:

(119) *Itiyeesia naita bia itiyaidad.*

[itíyé-és-í-a   [naítá bi-a   itíyá-íd-a = dᵉ]_MANNER

do-INT-1SG-REAL how   you.SG-ACC do-2SG-REAL = DP

I will do (it) like you do.

(120) *Ene naita menaa dii ikasiimetesatad.*

en-e   [naítá   mɛná-á = ˈdíí   ikásí-im-et-és-át-a = dᵉ]_MANNER

see.IMP.SG how   issues-ACC = ANPH do-MID-INCH-INT-3PL-REAL = DP

See how these issues will turn out.

9.9.4 Purpose

The notion of purpose is expressed primarily through nominalized verbs acting as complements (see §9.12.2). However, two other types of subordinate clause can also convey purpose: 1) one with a sequential verb, or 2) one introduced by the Teso-Turkana conjunction *(í)koteré*, which in this instance means something akin to 'so that…'. Moreover, these two types can be combined so that a sequential clause is introduced by *(í)koteré*.

In the first example below, the verb is marked grammatically only with the sequential impersonal passive suffix. But semantically, it implies that when the thing in question becomes a certain way, it is for a certain purpose.

(121) *Irese koto nti?*

[ir-ese = kótó   ńtí]_PURPOSE

be-SPS = then   how

So that it's like how?

In this second example, the conjunction *(í)koteré* introduces a third person negative imperative whose expressed purpose is that people do not laugh:

(122) *Taa kotere maa roɓa fek.*

taa [kóteré má-á roɓ-a fek-ª]_{PURPOSE}

QUOT so.that not-REAL people-NOM laugh-REAL

(That) so that people don't laugh.

The last example shows *(i)koteré* introducing a purposive sequential clause:

(123) *Kotere ikautoo cikam.*

[kóteré ɪkáʊ́t-ɔ-ɔ cɪkám-∅]_{PURPOSE}

so.that cool-3SG-SEQ women-NOM

So that the women cool it (i.e. food).

9.9.5 Result

Result clauses are formed with sequential verbs and the dummy pronoun {=´dɛ}. While the sequential aspect inherently indicates the logical and/or temporal follow-up of the preceding main clause, the dummy pronoun further emphasizes that something in the main clause yielded a particular result. It does this by marking a syntactically displaced peripheral argument that is located in the preceding clause. In the two examples below, the main clause contains the means or instrument resulting in the circumstances expressed by the second clause. For (124), money results in one being able to buy clothing; for (125), eating honey results in one getting satiated:

(124) *Maraŋa ɟa kaudz, iryameidukwee ƙwazak.*

maráŋ-á=ɟa kaúdz-∅ [iryám-é-ídu-kó=e ƙwaza-kᵉ]_{RESULT}

good-REAL=ADV money-NOM get-VEN-2SG-SEQ=DP clothing-DAT

Money is good, (such that) with it you get clothing.

(125) *Nƙini koto ciaaƙotinii ɟik.*

ŋƙ-ini=koto [cɪ-áá-ƙot-iní=i=ɟɪk]_{RESULT}

eat-SEQ=then sated-DISTR-COMP-SEQ=DP=also

Then they ate (honey), (such that) they also got sated by it.

9.9.6 Reason/Cause

Causal or 'because' clauses in Ik are subordinate clauses introduced with the plural pronominal *dɨ-* in the ablative case as *dúó*. This pronoun is then followed by either a) a possessive NP (in which case it is not a clause *per se)* or b) a relative clause. Because the common argument (*dúó*) shared between the main clause and relative clause is a peripheral argument in both, the verb in the relative clause is marked with the dummy pronoun. In (79) below, *dúó* is followed by the possessive NP *ńtí* , meaning 'because of them'. This is not a causal clause but rather a causal peripheral argument:

(126) *Gaana kija na ɗuo ńti.*

gaan-a	kíj-á=na	[ɗú-ó	ńtí-∅]_{PERIPHERAL}
bad-REAL	land-NOM=DEM.SG	ones-ABL	they-GEN

This country is bad because of them (lit. 'from those of them).

The structure in (126) is expanded in (127) with a relative clause modifying *dúó* instead of a simple possessive NP:

(127) *Gaana kija na*

[gaan-a	kíj-á=na
bad-REAL	land-NOM=DEM.SG

ɗuo roɓaa saɓunosad.

[ɗú-ó	[roɓa-a	sáɓ-únós-á=dᵉ]_{REL.}]_{CAUSAL}]_{MAIN}
ones-ABL	people-ACC	kill[PL]-RECIP-REAL=DP

This land is bad because people kill each other.

As mentioned in §9.8.2, relative clauses that modify the pronouns *dɨ* (sg.) and *dɨ* (pl.) are not introduced by a relative pronoun in non-past tenses. However, if a time/tense specification is desired for the relative clause, one of the tensed relative pronouns or tense particles is used, as in (128):

(128) *Cea ɲeka wicea*

[cɛ-a   ɲɛƙ-a   wicé-á
kill-REAL   hunger-NOM   children-ACC

ɗuo nii nƙaƙaa kwatsad.

[ɗú-ó = [nii   ŋƙáƙá-a   kwáts-á = dᵉ]_REL.]_CAUSAL]_MAIN
ones-ABL = REL.PL.PST1   food-ACC   small-REAL = DP

Hunger is hurting the kids because food was little (earlier today).

The underlined plural tensed relative pronoun in (128) shows that the tense of the relative clause is recent past. Causal clauses can just as well be cast in a future tense, as in (129). Note the intentional suffix {-és-} on the main and relative-clause verbs, as well as the future tense *fara* just after *ɗúó*:

(129) *Ceesa ɲeka wicea*

[cɛ-ɛs-á   ɲɛƙ-a   wicé-á
kill-INT-REAL   hunger-NOM   children-ACC

[ɗú-ó   [fara   ŋƙáƙá-a   kwáts-és-á = dᵉ]_REL.]_CAUSAL]_MAIN
ones-ABL   FUT3   food-ACC   small-INT-REAL = DP

Hunger will hurt the kids because food will be little.

Semantically, what multiple things does the plural pronominal *ɗúó* substitute for in these causal clause constructions? It is not entirely clear, but it could be along the lines of words, thoughts, or actions on the part of the animate or inanimate entities from which the causality is emanating.

The pronominal phrases *ki = ɗúó = nii* or *ki = ɗúó = n* (see §5.5) can also be found at the beginning of main clauses instead of as a peripheral argument at the end. In this usage, the phrases have more the meaning of 'because of that', or more literally, 'from those words' or 'from those actions'.

9.9.7 Conditional

Conditional sentences consist of a subordinate conditional clause ('protasis') and a main clause ('apodosis'). Three types of conditional clause exist in Ik: 1) one introduced by the subordinating conjunction *na´=* 'if' followed by a sequential verb, 2) one introduced by the conjunctive phrase *na=mɪsɪ* 'if whether' followed by a realis verb, and 3) one introduced by *dɛmʊsʊ* 'unless/until' followed by either a realis or a subjunctive verb.

The first type of conditional clause always comes before the main clause and is first of all recognized by the conjunctive proclitic *na´=* 'if'. If the subject of the conditional clause is made explicit, it takes the nominative case. The verb in the conditional clause is in the sequential aspect:

(130)   *Na atsiduk, maiduo ncik.*

[[ná=áts-idu-kᵒ]COND   ma-idu-o   ɲci-kᵉ]MAIN

CONJ=come-2SG-SEQ   give-2SG-SEQ   I-DAT

If you come, give (it) to me.

(131)   *Na oʝa iɣuo nebuk, iyee bats'.*

[[na=ɔʝ-á   i-u-o   nébu-kᵉ]CONDi-é=e   báts'-ᵃ]MAIN

CONJ=sore-NOM   be-3SG-SEQ body-DAT   be-REAL=DP pus-NOM

If a sore is on the body, there is pus in it.

With the conjunction *na´=*, the type of conditional clauses shown above have a present, gnomic, or even future tense. But they may also be put in the past tenses with the addition of the past tense particles, as in:

(132)   *Past-tense conditional clauses*

na=ƙáyukᵒ,…	'If she goes,…'
na=náá ƙayukᵒ,…	'If she had gone (earlier today),…'
ná=bee ƙayukᵒ,…	'If she had gone (yesterday),…'
na=noo ƙáyukᵒ,…	'If she had gone (a while ago)…'

Conditional clauses may be negated through the use of the sequential negating verb *moo/noo* following the conjunction *na´=*. And whereas affirmative conditional clauses contain verbs in the sequential aspect, negated conditional clauses contain the bare negative (irrealis) verb form:

(133)   *Naa noo ƙai, iryametima ŋitsanik.*

  [na = nó-ó ƙa-ⁱ]_COND iryám-ét-ima   ŋítsaní-kᵉ

  CONJ = not-SEQ go-3SG[IRR] get-VEN-1PL.EXC[SEQ] problems-DAT

  If he doesn't go, we'll get into trouble.

The second type of conditional clause is introduced by the conjunctive phrase *na = mɪsɪ*, a combinaton of *na´=* 'if' and *mísɪ* 'whether'. This type of conditional clause may precede or follow the matrix clause. Its verb is in the realis modality, while that of the matrix clause depends on the discourse context but is often in the sequential apsect as it is below:

(134)   *Na mɪsɪ tsidzuƙota ti, duƙotuo ti.*

  [na = mɪsɪ tsídz-uƙot-a tí]_COND d-uƙot-u-o   tí

  CONJ = whether carry-AND-REAL ADV take-AND-3SG-SEQ ADV

  If he rushes out this way, he'll then take it this way.

(135)   *Kwaatetiaa bita na mɪsɪ tudit,*

  ƙwaat-et-í-a-a bit-a   [na = mɪsɪ tud-ít-ᵃ

  bear-INCH-1SG-PRF you.PL-NOM CONJ = whether five-2PL-REAL

  na mɪsɪ leɓetsit, na mɪsɪ aɗit.

  na = mɪsɪ leɓets-ít-ᵃ na = mɪsɪ aɗ-ít-ᵃ]_COND

  CONJ = whether two-2PL-REAL CONJ = whether three-2PL-REAL

  I've born all of you, whether you are five, two, or three.

The third type of conditional clause is introduced by the conjunction *dɛmʊsʊ* 'unless, until'. Instead of a sequential verb, this conjunction takes a verb in either in the realis modality or subjunctive mood. Because *dɛmʊsʊ* also can

mean 'before', context must determine how it is interpreted. In the next two sentences, it is interpreted as having a temporal-conditional sense:

(136) *Biraa mena nesibetii ɗemusu toida ncik.*

     bıra-a   mɛn-a   nesíb-et-íⁱ   [ɗɛmʊsʊ tó-id-a   ɲci-kᵉ]_{COND}

     lack-REAL issues-NOM hear-INCH-1SG unless   tell-2SG-REAL I-DAT

     There is nothing I can hear unless you tell me.

(137) *Nta ƙoii ɗemusu atsidi nda nc.*

     ńt-á   ƙo-íí   [ɗɛmʊsʊ   ats-ídi   ńda   ɲcⁱ]_{COND}

     not-REAL   go-1SG   unless   come-2SG   with   I[OBL]

     I'm not going unless you come with me.

9.9.8 Hypothetical

Like conditional clauses, hypothetical subordinate clauses are also introduced by the subordinating conjunction *na´=* and contain sequential verb forms. But in addition to this, they involve the following tensed hypothetical auxiliary particles between *na´=* and whatever follows:

(138) *Hypothetical auxiliaries*

	Non-final	Final
PST1	ƙá-naa	ƙá=nakᵃ
PST2	ƙá=samu	ƙá=sam
PST3	ƙá=noo	ƙá=nokᵒ

In simple, independent hypothetical clauses, the hypothetical auxiliaries occur once in the second position of the clause, for example:

(139) *Atsia ƙanaa baratso nak.*

     ats-í-a   ƙa=naa   barats-o=nákᵃ.

     come-1SG-REAL   HYPO-PST1   morning-INS=DEM.SG.PST1

     I would have come this morning.

But in complex hypothetical clauses—the kind involving a subordinate clause—the hypothetical auxiliaries in (138) first introduce the protasis and are then repeated at the end of the main clause, or apodosis:

(140) *Na ƙanaa ɲarema birayuk,*

    [[na=ƙá=naa   ɲárɛ́m-a   bɪra-ʊ-kᵓ]ₕʏᴘᴏ

    ᴄᴏɴᴊ=ʜʏᴘᴏ=ᴘsᴛ1   insecurity-ɴᴏᴍ not.be-3sɢ-sᴇǫ

    ƙaiisina ƙanak.

    ƙa-í-ísin-a   ƙa=nakᵃ]ᴍᴀɪɴ

    go-ᴘʟᴜʀ-1ᴘʟ.ɪɴᴄ-ʀᴇᴀʟ   ʜʏᴘᴏ=ᴘsᴛ1

    If insecurity were not there, we would go regularly.

9.9.9 Concessive

Concessive, or 'even though' adverbial clauses consist of the particles *áta* (from Swahili *hata* 'even') or *toni* 'even', plus a simultaneous clause, as in:

(141) *Toni fiyetuƙodik!*

    [toni   fiyɛt-ʊƙɔ́-ídɪ-kᵋ]ᴄᴏɴᴄᴇssɪᴠᴇ

    even   fierce-ᴄᴏᴍᴘ-2sɢ-sɪᴍʟ

    Even though you grow fierce!

(142) *Ata ts'iƙaa joliaakatie, efesuƙot.*

    [áta   ts'ɪƙá-á   ɟol-i-aak-áti-e]ᴄᴏɴᴄᴇssɪᴠᴇ   ɛf-ɛ́s-úƙɔt-ᵃ

    even   bees-ᴀᴄᴄ   tasteless-ᴘʟᴜʀ-ᴅɪsᴛʀ-3ᴘʟ-sɪᴍʟ tasty-ɪɴᴛ-ᴄᴏᴍᴘ-ʀᴇᴀʟ

    Even if the honey (lit. 'bees') is tasteless, it will become tasty.

9.10 Verbless clauses

Changing gears now from subordinate back to main clauses: Two kinds of main clause are verbless: 1) the verbless copulative clause (§9.10.1) and 2) the verbless dative/genitive clause (§9.10.2). These are described next.

9.10.1 Verbless copulative clause

Verbless copulative clauses—covered in this section—are 'verbless' in the sense that they put a nominal marked with the copulative case in the predicate slot. This construction differs from the verbless dative/genitive clauses which are 'verbless' in the sense that they exhibit no predicate slot at all in the surface structure. In verbless copulative clauses, the predicative nominal can consist of a noun, pronoun, or nominalized verb. What allows a noun phrase to function as predicate is none other than the copulative case (described in detail in §6.3.8). In the copulative case, the copulative suffix {-kɔ} affixes to the underlying form of the nominal stem:

(143)   *Copulative predicates*

Lexical			Copulative	
cekí-	'woman'	→	cekú-kᵒ	'It's a woman'
ntsí-	's/he/it'	→	ntsú-kᵒ	'It's she.'
dód-oni-	'to hurt'	→	dód-onu-kᵒ	'It's pain.'

The copulative case enables a verbless grammatical alternative to the copula of identity *mɨt-*. Though *mɨt-* expresses both identity and possession, the copulative case expresses strictly identity. Serzisko further qualifies the meaning of *mɨt-* as one of ascription/description' compared to that of the copulative which expresses 'specification' (1992:55ff).

Just as *mɨt-* takes a copula subject (CS) and copula complement (CC), verbless clauses with nominal heads take a verbless clause subject (VCS) and verbless clause complement (VCC; Dixon 2010:160). Ik being an eminently argument-dropping language, the VCS is often omitted, leaving only the VCC in the copulative case. When the VCS is present, it takes the nominative case as would an S or A subject under most other conditions. In the following examples, the first clause represents a standard copular construction, while the second illustrates the verbless copula clause:

(144) *Mitia nka jakam.* *J'akamoo nk.*

mɪt-í-á   ŋ́k-a$_{CS}$ jákám$_{CC}$ jákámó-ó$_{VCC}$ ŋ́k-ª$_{VCS}$

be-1SG-REAL I-NOM   elder[OBL]   elder-COP   I-NOM

I am an elder.   An elder am I.

(145) *Mita ata ŋok.* *Ŋokuk.*

mɪt-a   át-á$_{CS}$ ŋók^{i}$_{CC}$ ŋókú-kᵒ$_{VCC}$

be-REAL FILL-NOM dog[OBL]   dog-COP

The thing is a dog.   A dog the thing is.

Though the propositional meaning of the copular and verbless copulative pairs in these examples is the same, fronting the complement argument does have the effect of bringing it into greater focus. So pragmatically and stylistically, a speaker may choose one mode of expression over the other.

Given that the head of verbless clauses is a noun phrase, there must be limitations on its allowed verblike characteristics. For example, a verbless clause cannot be negated as a verbed clause can be. Instead, the negating copula of identity *bení-* must be used. Also, besides the copulative case ending {-kɔ}, no other verbal suffix can be put on the head of a verbless clause. Nonetheless, verbless clauses do exhibit some verblike qualities. For example, they can be tensed (146) and modified by adverbs (147):

(146) *Buo naa?* *Ncuo nak.*

bu-o=náa   ɲ́cu-o=nákª

you.SG-COP=PST1   I-COP=PST1

Was it you (earlier today)?   It was I (earlier today).

(147) *Amoo tsabo.* *Ntsuo ts'oo.*

ámó-o   tsábo   ntsú-ó   ts'ɔɔ

person-COP apparently   s/he/it-COP probably

It's a person apparently.   It's him probably.

9.10.2 Verbless dative/genitive clause

A second type of verbless clause communicates possession without the benefit of an actual verb in the surface structure. This construction has also been termed 'predicative possessive' (Heine & König 1996:50). It is called 'dative/genitive' here because it is not known which case suffix it involves. That is, in their non-final forms, the dative suffix {-ɛ} and genitive suffix {-ɛ} are identical. And since verbless clauses of this type have to do with possession, either case is theoretically admissible (see discussion in §9.2).

Verbless dative/genitive clauses have a different underlying structure than verbless copulative clauses. Whereas in the latter type, a nominal element functions as the predicate, verbless dative/genitive clauses manifest no overt predicate at all. So rather than being 'verbless' in the sense that something other than a verb fills the predicate slot, they are 'verbless' in the sense that there is no predicate on the surface. In the following examples, nouns marked with {-ɛ} come clause-initially. Either a dative or genitive intepretation of {-ɛ} is possible because both can encode possession:

(148)   *Ncie ŋoka na.*

      ɲ́ci-e   ŋók-á=na

      I-DAT/GEN   dog-NOM=DEM.SG

      This is my dog.

(149)   *Roɓee kuruɓaa ni.*

      roɓe-e   kúrúɓá-a=ni

      people-DAT/GEN things-NOM=DEM.PL

      These are people's things.

Depending on the analysis of the case marker {-ɛ}, *ɲ́cie* in (148) could mean 'to me' or 'of me', and *roɓee* in (149) could mean 'to people' or 'of people'.

9.11 Focus and topic constructions

Ik uses three syntactic operations to alter the pragmatic status of a clausal argument. To bring a constituent NP into greater focus, a cleft construction is used. To highlight the topic of a particular sentence, a topical argument may bel left-dislocated or 'preposed' before the main clause. And a discourse topic can also be emphasized by simply 'apposing' a noun phrase to a clause. Left-dislocation and apposition both emphasize the topic but differ in this regard: The left-dislocated NP is still also an argument in the main clause, while an apposed NP is not an argument in the main clause.

9.11.1 Cleft construction

Ik cleft constructions consist of a clefted clausal argument in the copulative case followed by the original main clause now in a subordinated form. As indicated by the copulative case marking, the Ik cleft construction takes the form of a verbless copula clause (§9.10.1) in which the copula complement (CC) is the clefted argument and the copula subject (CS) is the original, now subordinate main clause. It can be formulated as follows:

(150)   *Ik cleft construction*:   [NP-COP]$_{CC}$ [SUBORD]$_{CS}$

The following pair of sentences exemplify the Ik cleft construction. The first example is a pragmatically unmarked basic clause with the canonical word order for transitive clauses (VAO). In the second example, the direct object of the clause, *mɛsɛ-* 'beer', gets clefted and put in the copulative case. The original main verb, *bédím*, then assumes its role as the predicate in a subordinate clause acting as the subject of the verbless clause *mɛsɔɔ*:

(151)   *Bedima mes.*
         bɛ́ɗ-ím-a$_{VA}$ mɛs-∅$_{O}$
         want-1PL.EXC-REAL   beer-NOM
         We want beer.

(152) *Mesoo beɗim.*

mɛsɔ-ɔ_{CC}   [bɛ́ɗ-ím-∅_{VA} ∅_O]_{CS}

beer-COP   want-1PL.EXC-REAL

It's beer (that) we want.

That the cleft construction involves a subordinate clause is shown by the case marking of any remaining overt arguments in the original clause. For example, the subject of the verb *bédím* in (153) is in the accusative case, the case all non-sequential subordinate clause subjects are marked with in Ik:

(153) *Mesoo ngwaa beɗim.*

mɛsɔ-ɔ_{CC}   [ŋgó-á   bɛ́ɗ-ím-∅]_{CS}

beer-COP   we.EXC-ACC want-1PL.EXC-REAL

It's beer (that) *we* want.

The question remains, however, whether the subordinate clause in (153) is a relative clause. In the Kuliak language So, clefted interrogative words are said to be modified by relative clauses (Carlin 1993:135). But for Ik, a relative clause interpretation for sentences like the one in (153) is ruled out on the basis that any tense markers immediately follow the clefted argument, as in (154). Relative clauses, by contrast, are tensed by the relative pronouns themselves, as in (155):

(154) *Mesoo bee beɗim.*

mɛsɔ́-ɔ́_{CC}=bɛɛ   [bɛ́ɗ-ím-∅]_{CS}

beer-COP=PST2 want-1PL.EXC-REAL

It was beer (that) we wanted (yesterday).

(155) *Mesoo sini beɗim.*

mɛso-o_{CC}=[sini   bɛ́ɗ-ím-∅]_{CS}

beer-COP=PST2.REL.PL   want-1PL.EXC-REAL

a) It is the beer that we wanted (yesterday).

b) **It's beer (that) we wanted (yesterday).

Cleft constructions are very common in Ik discourse, giving it a particular structural texture characteristic of the language as a whole, for example:

(156) *Woo noo nkiaŋ.*
       wɔ-ɔ$_{CC}$＝nɔɔ   [ŋƙ-í-án-∅]$_{CS}$
       greens-COP＝PST3   eat-PLUR-IPS-REAL
       It was greens (that were) eaten.

(157) *Ntsuo naa atsiaad.*
       ntsú-ó$_{CC}$＝naa   [ats-í-á＝d^e]$_{CS}$
       it-COP＝PST1   come-1SG-REAL＝DP
       It's why I came.

(158) *Ts'edoo koto kaitatee nkaƙak.*
       ts'ɛ́� a ts'ɛ́⁺dɔ́-ɔ́$_{CC}$＝kɔtɔ   [kait-át-e＝e   ŋƙáƙá-kᵃ]$_{CS}$
       there-COP＝then   taste-3PL-REAL＝DP   food-ACC
       So there is (where) they taste food.

(159) *Pakoicoo bee itsuŋkota awikak.*
       pakó-íce-o$_{CC}$＝bee   [ɪtsúŋ́-ƙɔt-a   aw-ika-kᵃ]$_{CS}$
       cave-AGT.PL-COP＝PST2   burn-COMP-3PL-REAL home-PL-ACC
       It was the Turkana who burned down the homes.

9.11.2 Left-dislocation

Another way the language alters the pragmatic status of an argument is to left-dislocate it before the main clause. Doing so highlights the topicality of that argument. Ik left-dislocation can be formulated as follows, where S stands for the main clause and S´ stands for the sentence encompassing the main clause and preposed argument (notation from Payne 1997:274):

(160) *Ik left-dislocation:*   [NP-NOM S]$_{S´}$

The left-dislocated constituent may be a simple noun or a complex NP with modifiers like relative clauses. Unlike clefted constituents which take the copulative case, left-dislocated arguments take the nominative case. Besides being left-dislocated, the highlighted argument is set apart from the main clause by a clear pause. It may also receive solicitive intonation which consists of a rising boundary tone at the end of the NP (see §3.3.5).

In the first example below, the main clause subject *roɓa* 'people', along with its modifying relative clause, gets dislocated leftward. As predicted typologically (Payne 1997:275), the preposed agent NP is recapitulated in the main clause by means of the 3PL subject-agreement suffix {-át(i)-}:

(161) *Roɓa ni uga ɲogoliɗiaa, dzigwata atik.*

roɓ-a＝ni   úg-a   ɲɔ́gɔ́lɪɾ̃ɪ-aá ‖ dzígw-at-a   átí-kᵃ

people-NOM＝REL.PL dig-REAL gold-ACC   buy-3PL-REAL   FILL-ACC

People who dig for gold, they buy um…

In the next example, it is the object of the main clause (*komos*) that is left-dislocated. It is further highlighted by a substantial pause, which can be discerned in the example by the presence of final form (no final vowel). Note, however, that the left-dislocated object is not recapitulated in the main clause. This is not surprising for two reasons: 1) Direct objects are not cross-referenced on verbs like subjects are, and 2) Ik tends to drop subjects and objects in all types of clauses (where they are understood contextually).

(162) *Komos, duƙesuƙoida ceɲetiaamak.*

komos-∅   ‖   duƙ-és-úƙó-íd-a   ceɲetí-áma-kᵉ

hindquarter-NOM   take-INT-AND-2SG-REAL   inlaw-AGT.SG-DAT

The hindquarter, you will take (it) to your in-law.

Peripheral arguments can also be left-dislocated. In this last example below, the preposed argument *cua* 'water' has the semantic role of 'means' in the main clause. It is recognized as topic here by the nominative case and

solicitive intonation consisting of a low-rising boundary tone. And it is recapitulated in the main clause through the dummy pronoun {-ˊdɛ} which indicates that a non-core (instrumental) argument has been relocated:

(163) *Cua dii nii, taa ntsuo epesuƙotanad.*
 cu-a = ˈdíí = nií   ‖   taa   ntsú-ó ep-és-úƙot-an-á = dᵉ
 water-NOM = ANPH = DEM.PL   QUOT it-COP sleep-INT-COMP-IPS-REAL = DP
 That water there, okay, that's what people will go to sleep on (i.e. having drunk it to satisfy their thirst).

9.11.3 Apposition

Finally, an NP can simply be apposed to a following clause in which it has no syntactic or semantic role, though a pragmatic relationship is implied. This type of pragmatic operation can be formulated as follows, where S stands for the main clause (notation borrowed from Payne 1997:274):

(164) *Ik apposition:*   [NP] [S]

Apposed noun phrases are also separated from the following clause by a pause and often solicitive intonation. And the head of an apposed NP must take the nominative case. But unlike left-dislocated arguments, apposed NPs are not arguments in the clauses that follow them. As such, they are not recapitulated in those clauses in any way. For example, in the next example, the apposed NP simply expresses the reason for the proposition that follows. It does not figure into the main clause either syntactically or semantically:

(165) *Koroɓaa atsiadee, tawanaa ɲeɗekea imak.*
 [kɔ́rɔ́ɓá-a [ats-í-á = deé]ₛᵤᵦₒᵣₚ]ₙₚ[tawán-á-a   ɲɛɗɛkɛ-a   imá-kᵃ]ₛ
 thing-NOM come-1SG-REAL = DP   harm-REAL-PRF illness-NOM child-ACC
 What I came for, okay...Illness is harming (my) child.

9.12 Questions

Questions in Ik may be polar (yes/no) questions or content questions. Polar questions add an interrogative overlay to a sentence otherwise in the indicative mood. This overlay consists of a) the non-final form of the final morpheme in the clause and b) an interrogative intonation. Content questions, on the other hand, involve a) interrogative words that substitute for the clausal constituent they question, and optionally b) a topicalized structure where the interrogative word acts as a verbless clause (copula) complement. Each type of Ik question is described in more detail below.

9.12.1 Polar questions

Polar questions generally expect a simple confirmation or denial as a response. The response can be 'yes' (*éé/ee*) or 'no' (*ńtóodó*) or a repetition of the question in the affirmative. Such questions in Ik are recognized by two characteristics: 1) They end with the non-final allomorph of the last morpheme in the question (as opposed to the final form in an Indicative sentence), and 2) the last mora of the question takes a low boundary tone:

(166) *Maraŋa?*

maráŋ-à $\left[\begin{array}{cc} - & ^- \\ & \diagdown \end{array} \right]$

good-REAL

Is it good?

Maraŋ!

maráŋ-∅ $\left[\begin{array}{cc} - & ^- \end{array} \right]$

good-REAL

It's good.

(167) *Maraŋa ɟiki?*

maráŋ-á ɟíkì $\left[\begin{array}{cccc} ^- & ^- & ^- \\ & & & \diagdown \end{array} \right]$

good-REAL totally

Is it totally good?

Maraŋa ɟik!

maráŋ-á ɟíkᶦ $\left[\begin{array}{cccc} ^- & ^- & ^- & \diagdown \end{array} \right]$

good-REAL totally

It's totally good.

Besides the interrogative low boundary tone evident in (166) and (67), one may detect a slightly higher overall pitch level for the polar question. This higher pitch level does not affect tone at the lexical or phrase level but

merely raises the relative pitch of the whole sentence. The degree to which the pitch is raised seems to be tied to the level of emphasis or emotion behind the question. For more on the intonational tunes of indicative, interrogative, and 'solicitive' sentences, refer back to §3.3.5.

Some further examples of Ik polar questions include these below. For each clause-final element, its final form is shown in square brackets to indicate how it would look if the clause were indicative instead of interrogative:

(168)   *Maa noo tsitsiiƙoti ɟotea?*

    má-á=noo   tsits-í-íƙot-i   ɟɔtɛ́-â_{INTERROG}   [ɟɔtɛ́-kᵃ]

    not-REAL=PST3   roll-PLUR-AND-3SG   sisal.root-ACC

    Did he not used to roll sisal roots?

(169)   *Zeƙwida koto eɗa?*

    zɛƙw-íd-a=koto   ɛɗâ _{INTERROG}   [ɛɗá]

    live-2SG-REAL=then   only

    So then do you live alone?

(170)   *Rebana nkako ɟii?*

    réb-an-a   ŋƙáƙ-ó   ɟɪì_{INTERROG}   [ɟɪkᵉ]

    withheld-IPS-REAL   food-INS   also

    Is food also withheld (from him)?

(171)   *Bona ɲeryaŋa njinia?*

    bon-a   ɲéryaŋ-a   ɲjíní-â_{INTERROG}   [ɲjíní-kᵃ]

    care.for-REAL   government-NOM   we.INC.-ACC

    Does the government care for us?

In principle, any word, phrase, clause, or sentence in the language can be questioned in a way that expects a confirmation or denial. Whatever grammatical category the questioned element belongs to, it will be in its non-final form together with the low boundary tone of interrogative

intonation. In (172) and (173), it is a simple NP that has been questioned, whereas in (174), a simultaneous subordinate clause is under query:

(172) *Ntsa?*   *Ee, nts.*

       nts-à _{INTERROG}   ee   nts-∅

       s/he-NOM   yes   s/he-NOM

       She?   Yes, she.

(173) *Awa ne erutsa?*   *Ee, awa ne eruts.*

       aw-a = na   erúts-à _{INTERROG}   ee   aw-a = na   erúts-ᵃ

       home-NOM = REL new-REAL   yes home-NOM = REL new-REAL

       A new home?   Yes, a new home.

(174) *Gaanatie ɲaa?*   *Gaanatik.*

       gaan-áti-e = ɲáâ _{INTERROG}   gaan-áti-e = ɲákᵃ

       bad-3PL-SIML = ADV   bad-3PL-SIML = ADV

       They really being bad?   They being really bad.

When a particular clausal constituent is questioned rather than the whole clause, it is fronted into a cleft construction. In this construction, the focused element acts as a verbless clause complement and takes the copulative case. The rest of the clause then shifts into a subordinate clause structure. This syntax of this construction is the same as is used for content questions. The following examples compare non-focused polar questions (175 and 176) with their respective cleft equivalents (177 and 178):

(175) *Atsia naa kaudzoe?*

       ats-íd-a = naa   kaúdzo-è _{INTERROG}

       come-2SG-REAL = PST1   money-DAT

       Did you come for money?

(176) *Kaudzoo naa atsidee?*

kaúdzo-o = náa   ats-íd-e = è

money-COP = PST1   come-2SG-REAL = DP _{INTERROG}

Was it money you came for?

(177) *Enita bee boroka?*

en-ít-á = bee   borok-à _{INTERROG}

see-2PL-REAL = PST2 bushpig-NOM

Did you see a bushpig (yesterday)?

(178) *Borokuo bee enita?*

boroku-ó = bee   en-ít-à _{INTERROG}

bushpig-COP = PST2   see-2PL-REAL

Was it a bushpig that you saw (yesterday)?

The true morphological marker of polar questions in Ik is the final, low boundary-tone comprising the interrogative intonational tune. In this, Ik differs from neighboring Teso-Turkana languages like Turkana which append the invariable question particle *-à* to utterances to make a polar question (Dimmendaal 1983:429). Heine & König posited *-a* as an interrogative particle in Ik too (1996:116), but this must be based on an incorrect analysis of the suffix {-a} which marks both nominative case and realis modality. If either of these morphemes came clause-finally in a polar question, it would definitely resemble the Teso-Turkana question particle.

9.12.2 Content questions

Content questions in Ik involve clauses in which a constituent has been replaced with an interrogative word. Unlike in some languages, only one interrogative word per question is permitted in Ik. Ik Interrogative words—see (179) below—include those corresponding to (and therefore standing in place of) (pro)nouns, adverbs, and verbs. Besides the interrogative words themselves, no other special morphological or intonational means are used.

(179) *Ik interrogative words*

INTERROG	Meaning	Word class
ndo-	'who?'	(pro)noun
ndaí-/ńtá	'where?'	(pro)noun
ńté-éní-	'which (sg.)?'	(pro)noun
ńtí-éní-	'which (pl.)?'	(pro)noun
ńté-éní-/ńt-	'when (+specified unit of time)?'	(pro)noun
isi-	'what?'	(pro)noun
	'why (with DAT or ABL case)?'	(pro)noun
ńtí	'how?'	adverb
kɪtɔ́ós-	'what quality (color, shape, etc.)?'	verb
taná-	'how many?'	verb

As can be seen from (179), most Ik interrogative words are (pro)nouns and thus inflect fully for case. Some others, like *ńté-éní-* 'which (sg)?' are compound nouns. The adverbial interrogative *ńtí* 'how' is an invariable particle, and the words *kɪtɔ́ɔs-* 'what quality?' and *taná-* 'how many?' are both intransitive verbs.

The word *ndo-* 'who' can be pluralized with the possessive plural suffix making *ndo-íní-* 'who (pl.)?'. In isolation, *ńtá* is the word used for 'where?', while *ndaí-* is used when a case inflection is required. This latter form is likely a combination of the proto-interrogative **nd/nt-* and *aí-* 'side, place' but should probably now be considered lexicalized (see §8.2.4 for a discussion of *aí-*'s role in the formation of locative demonstratives).

The singular and plural forms of 'which' are also based on the proto-interrogative morpheme **nd/nt-* plus the possessum pronominal *-ɛní-*. The concept of 'when' in Ik is usually expressed through a combination of *ńté-éní-* 'which' plus the appropriate unit of time as its modifier in the genitive case, as in *ńté-énɔ́-ɔ ɲásáatí* 'which hour?' or *ńté-énɔ́-ɔ arágwaní* 'which month?'. A shortened form has arisen alongside *ńté-énɔ́-ɔ ódowi* 'which day?'—*ńtó-odów* 'when (which day)?' (noted by Heine & König 1996:120).

Some paradigmatic similarity can be seen between the interrogative words and specific indefinite pronouns (as predicted by Dixon 2012:401):

(180)   *Comparative interrogative/indefinite paradigm*

Interrogative		Indefinite	
nd-aí-	'where?'	kɔ́n-áí-	'somewhere'
ńtɛ́-ɛ́ní-	'which (sg.)?'	kɔ́nɛ́-ɛ́ní-	'a, some (sg.)'
ńtí-ɛ́ní-	'which (pl.)?'	kíní-ɛ́ní-	'some (pl.)'
ńtó-odów	'which day?'	kón-(i)t-ódoi	'some day'

The main demonstrable difference between the word classes in (180) is that the first term in the interrogatives is the interrogative proto-form **nd/nt-*, while in the indefinite pronouns, it is various forms of the root *kɔní-* 'one'. It should be clear from the table in (180) and these preceding notes that the etymological basis for Ik interrogatives is a proto-form like **nd/nt-* (with variable tone). This fits well with Ehret's lexical reconstruction of proto-Nilo-Saharan in which he posits **nda* and **ndi* as proto-NS roots for 'what?', **ndé* for 'which?', and **ndo:* for 'who?' (2001:310-311). The word *isi-* 'what' is more mysterious in that it has no watertight parallels in Kuliak or Teso-Turkana, nor is it mentioned in Ehret 2001. One possible link may be to the Kuliak So's interrogative particle *ii/ic* 'who?' (Heine & Carlin 2010:17).

The interrogative verbs shown in (180) conjugate fully as an other verb. This is illustrated next with a paradigm of the verb *taná-* 'be how many?':

(181)   *Conjugation of the interrogative verb* taná-

1SG	taná-í	'How many am I?'
2SG	taná-íd[a]	'How many are you?'
3SG	taná	'How many is s/he/it?'
1PL.EXC	taná-ít[a]	'How many are you (pl.)?'
1PL.INC	taná-ím	'How many are we (exc.)?'
2PL	taná-ísɪn	'How many are we (inc.)?'
3PL	taná-át[a]	'How many are they?'

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The verb *taná-* when used with singular subjects pragmatically conveys a measure of skepticism or even indignation. For instance, if someone is being asked to do too much alone, they might respond with *tanáí* 'How many am I?' Or similarly, if someone is boasting of all he can accomplish, one might rightfully inquire *tanáíd* 'How many are you?'

The (pro)nominal interrogative words from (180) can replace clausal constituents right where they are, whether the clause is structurally unmarked (as in 182) or changed to a verbless clause (as in 183):

(182) *Beɗa isik?*   *Beɗa mesek.*
    béɗ-á   <u>isi</u>-kᵃ   →   béɗ-á   mɛsɛ-kᵃ
    want-REAL what-ACC   want-REAL beer-ACC
    S/he wants <u>what</u>?   S/he wants beer.

(183) *Isio beɗ?*   *Mesoo beɗ*
    <u>isi</u>-o   béɗ-∅   →   mɛsɔ-ɔ   béɗ-∅
    what-COP want-REAL   beer-COP want-REAL
    <u>What</u> does s/he want?   It's beer s/he wants.

The same is true for other interrogative words like *ndaí-* 'where?':

(184) *Keesa ndaik?*   *Keesa sedak.*
    ƙe-es-á   ndaí-kᵉ   ƙe-es-á   séda-kᵉ
    go-INT-REAL <u>where</u>-DAT   go-INT-REAL garden-DAT
    She's going <u>where</u>?   She's going to the garden.

(185) *Ndayuo keesad?*   *Sedoo keesad.*
    ndaí-ó   ƙe-es-á=dᵉ →   sédo-o   ƙe-es-á=dᵉ
    where-COP go-INT-REAL=DP   garden-COP go-INT-REAL=DP
    <u>Where</u> is she going?   It's to the garden that she's going.

The concept of 'why?' is typically expressed with the word *isi-* 'what?' plus a) the dative case marking the semantic role of 'purpose' or b) the ablative case marking the 'cause/reason' semantic role. In this function, *isi-* acts as a peripheral argument within the clause. Even in this role it can fall in the canonical post-VS or post-VAO position or be fronted:

(186)   *Keesida isik?*

ƙe-es-íd-a   isi-kᵉ

go-INT-2SG-REAL what-DAT

Why are you going (lit. 'You are going for what (purpose)')?

(187)   *Keesida isu?*

ƙe-es-íd-a   isu-∅

go-INT-2SG-REAL what-ABL

Why are you going (lit. 'You are going from what (cause)')?

(188)   *Isio ƙeesidad?*

isi-o   ƙe-es-íd-a＝dᵉ

why-COP   go-INT-2SG-REAL＝DP

Why are you going (lit. 'It is what you are going for/from')?

Another way of expressing 'what?' is with the compound noun *isi-ɛní-kᵋ*. This compound combines *isi-* 'what?' with the possessum suffix *-ɛní-* into a compound marked with the dative case. This form of 'why?' is often used in isolation without other words, as in the stand-alone *isi-ɛní-kᵋ* 'Why?'.

9.12.3 Alternative questions

So-called 'alternative questions' (Dixon 2012:398-400) are made possible in Ik through the use of the disjunctive conjunction *keɗe* 'or'. This conjunction joins noun phrases in a series or whole clauses into a complex sentence. Apart from *keɗe*, Ik alternative questions are not marked by any overt morphological or prosodic means. In the examples below, *keɗe* joins two

clauses that could each constitute polar questions on their own. Together they make up a content question whose answer will be the affirmation of one or the other. Note that the final constituent remains in its final form:

(189) *Maraŋa keɗe gaan?*
     [maráŋ-á] keɗe   [gaan-∅]
     good-REAL   or   bad-REAL
     Is it good or (is it) bad?

(190) *Giriana keɗe dzigwiikotan?*
     [gir-í-án-a]   keɗe   [dzígw-i-iƙót-an-∅]
     keep-PLUR-IPS-REAL or   sell-PLUR-AND-IPS-REAL
     Were they regularly kept or regularly sold?

9.12.4 Tags

Ever given to rhetorical flourishes, Ik speakers may use one of several interrogative 'tags' to solicit a response from those listening to their speech. Each of the tags is a negated polar question to which the expected response is in the affirmative. The following two are representative:

(191) *Benia ntia?*   *Nti.*
     beni-a   ńtíâ$_{INTERROG}$ ńtí
     not.be-REAL like.that   like.that
     Is it not so?   (It is) so.

(192) *Nta ƙamatii?*   *Kamatad.*
     ńt-á   ƙám-átí=ì$_{INTERROG}$ ƙám-át-a=dᵉ
     not-REAL be.like-3PL=DP   be.like-3PL-REAL=DP
     Are they (i.e. words) not like that?   They are like that.

9.13 Complementation

Complementation—a clause filling a slot in the argument structure of another clause—is handled in Ik in two ways: 1) with a special type of complement clause and 2) with other 'complementation strategies' (Dixon 2010:405). An Ik complement clause has the following five characteristics (the first three of which are definitive according to Dixon 2010:370):

(193) 1) It has the internal structure of a clause.
       2) It functions as the core argument of another clause.
       3) It describes a proposition: fact, activity, or state.
       4) Its complementizer is an argument in the matrix clause.
       5) It takes the form of reported speech.

9.13.1 Complement clauses

Complement clauses (CoCL) in Ik are recognized by the initial complementizer *toimɛna-* that introduces them. This complementizer is a lexicalization of two roots: *tód`-* 'speak' and *mɛná-* 'words, issues', resulting in a compound that means something akin to 'saying (that)…'. Despite its verblike meaning, *toimɛna-* behaves grammatically as a noun: a) It fills an argument slot in the matrix clause, and b) it inflects for case.

Ik complement clauses evolved out of reported speech constructions (see §9.14). Technically, it is the quotative complementizer *toimɛna-* 'saying' that functions as the core argument of a matrix clause, while the 'complement clause' itself is treated as a direct quotation, i.e. the complement of *toimɛna-*. So point #2 of (193) is only true insofar as one considers the whole construction to be grammaticalized such that *toimɛna- plus* the direct quotation fill the argument slot of the matrix clause.

In terms of functional possibilities, *toimɛna-*clauses can fill the syntactic slots for object (O), copula subject (CS), copula complement (CC), and oblique peripheral argument. In (194), the complementizer *toimɛna-* is in the

accusative case, indicating that it and the clause it complementizes is the object (O) of the transitive verb *ɦye-* 'know' in 3SG:

(194)   *Nta ɦyei toimenaa sits'a noo tatatieakwa nti.*

      ńtá ɦye-i   [toimɛna-a [síts'-á=noo   tátáti-ẹakw-a   ńtí]_{CoCl}]_O

      not know-3SG COMPL-ACC engage-REAL=PST3 aunt-man-NOM ADV

      He doesn't know that (his) uncle got engaged like that.

In the next example, a *toimɛna*-clause is functioning as the copula subject (CS) of a verbless clause. The copula complement (CC) of the verbless clause is *ntsí-* 'it' which appears as *ntsú-ó* 'it is…' in the copulative case:

(195)   *Ntsuo toimena tezetoo menaicika muɲ.*

      ntsú-ó   [toimɛn-a [téz-ɛt-ɔ-ɔ   mɛná-ícík-á   muɲ^u]_{CoCl}]_{CS}

      it-COP   COMPL-NOM end-INCH-3SG-SEQ issues-PL-NOM all

      It's that all the issues have ended.

The next example features a complement clause functioning as the copula complement (CC) of the negative copula verb *benɪ́-*. With this verb, CCs typically take the copulative case, and this sentence is no exception:

(196)   *Benia toimenoo mitida ceki na gaan.*

      beni-a   [toimɛnɔ-ɔ [mɪt-íd-a   ceki=ná   gaan-∅]_{CoCl}]_{CC}

      not.be-REAL COMPL-COP be-2SG-REAL woman[OBL]=REL.SG bad-REAL

      It's not that you are a bad woman.

In the next example, the complement clause is treated morphologically (with the oblique case suffix) and syntactically (noun in a series following *ńda*) as a peripheral argument. The origin of *toimɛna-* as an introducer of reported speech comes out clearly in this example: a) An audience for the reported speech is encoded as the extended object *cɪkámée* 'to the women' which even separates the complementizer from the quotation, and b) the quotative particle *taa,* otherwised used in quotative formulae, is present:

(196) *Nda toimena cikamee taa ƙoyuo koto sedikak.*

    ńda [toimɛna   cɪkámé-e   taa   [ƙó-yúo = koto   séd-ika-k^e]_{CoCl}]_{OBL}

    and COMPL[OBL] women-DAT QUOT go-IMP.PL = then garden-PL-DAT

    And saying to the women that 'you go then to the gardens'.

Because *toimɛna*-clauses can express either factual or potential propositions, they exhibit a wide range of possible verb and clause types. With some verbs, like *bɛ́ɗ-* 'want', even hortatives and optatives can occur:

(197) *Beɗa toimenaa taa goƙaaketano.*

    bɛ́ɗ-á   [toimɛna-a taa   [goƙ-aak-ét-ano]_{CoCl}]_O

    want-REAL   COMPL-ACC QUOT   seated-DISTR-VEN-HORT

    He wants us to all be seated (lit. 'He wants that let's all be seated').

(198) *Beɗida toimena yumetine ceki?*

    bɛ́ɗ-íd-a   [toimɛn-a [ɪ̰úm-ét-ɪnɛ   ceki]_{CoCl}]_O

    want-2SG-REAL COMPL-NOM engage-VEN-1SG[OPT]   woman[OBL]

    Do you want me to engage a woman (lit. 'that let me engage...')?

As seen in (196) and (197), the quotative particle *taa* (a phonologically reduced form of *kʋta* 's/he says') often accompanies *toimɛna-*. This particle functions as an optional introducer of reported speech (see §9.14). The Ik 'saying'-words *toimɛna-* and *taa* can be compared to similar forms in neighboring Teso-Turkana languages. For example, in Karimojong, the complementizer *a-tɛmar* is also the verb 'to say' and the quotative particle *ɛbɛ́* is an irregular 3SG form of the verb *ábala,* also meaning 'to say'.

Lastly, complement clauses are negated just like non-complement clauses:

(199) *Nesibia toimena nta zeƙwidi atik.*

    nesíb-i-a   [toimɛn-a [ńt-á   zɛƙw-ídɪ   átí-k^e]_{CoCl}]_O

    hear-1SG-REAL COMPL-NOM not-REAL   live-2SG   FILL-DAT

    I hear that you don't live in, um…

9.13.2 Complementation strategies

Besides the *toimɛna*-clause types described above, Ik also uses two further complementation strategies: 1) nominalization and 2) clause chaining.

The verbal element of a complement clause can be nominalized instead of appearing as a full finite verb. This is a commonly used complementation strategy in Ik. Nominalized verbal complements can fill any core or non-core argument slot and thus take any required case ending. If the subject of the nominalized verb needs to be specified, for example if it differs from the main clause subject, it directly follows the complement verb in the genitive case. And if the nominalized verb is transitive, then its object also follows it (and the subject) in the genitive case. This means that if the complement clause is transitive and has a different subject than the matrix clause, the nominalized verb may be followed by two nouns in the genitive case.

For example in (200), the nominalized verb *sáɓ-és* 'to kill (pl.)' is the subject (S) of the intransitive verb *gaan-ón* 'to be bad' and therefore takes the nominative case. Within the nominalized complement clause, *sáɓ-és* is a transitive verb with an object marked in the genitive case:

(200)　*Gaana saɓesa roɓae.*

　　　　gaan-a$_V$　　　[sáɓ-és-a$_{VA}$　　　　　[roɓa-^{e}]$_O$]$_S$

　　　　bad-REAL　　　kill[PL]-INF-NOM　　　people-GEN

　　　　Killing people is bad (lit. 'The killing of people is bad').

The next example presents a nominalized transitive clause filling the object slot of a matrix transitive clause. The transitive verb *bol-és-úꞥot$^{a'}$* 'to stop (doing something)' has the nominalized clause *ɪmɔɗɛsíá wicé* as its object, with *ɪmɔɗ-ɛs'* marked with the accusative case (since the subject of the main verb in the matrix clause is 3-person). Then, within the complement clause itself, the nominalized verb *ɪmɔɗ-ɛs'* 'to deceive' has its direct object encoded as a possessive modifier in the genitive case:

(201)   *Boluƙotataa imoɗesia wice.*

bol-uƙot-át-a-a~VA~   [ɪmɔɗ-ɛsí-á~VA~   [wicé-∅]~O~]~O~

stop-COMP-3PL-REAL-PRF   deceive-INF-ACC   children-GEN

They've stopped deceiving children.

Nominalized verbs can also fill peripheral argument slots. In the next example, the nominalized verb *ɪráb-ɛs* 'to harvest millet' is filling the slot of a peripheral argument in the dative case, denoting purpose:

(202)   *Botuo cikama rebeaƙok, irabesik.*

bot-u-o   cɪkám-á   rébe-aƙɔ-k~ɛ~   [ɪráb-ɛsí-k~ɛ~]~PERIPHERAL~

move-3SG-SEQ   women-NOM   millet-inside-DAT   harvest.millet-INF-DAT

And the women moved to the millet for harvesting (it).

The peripheral argument can be a complex complement clause appended to a main clause as if it were the last in series of noun phrases. In this next example, an entire transitive clause is encapsulated in multiple embedded noun phrases that fill an oblique argument slot in a preceding matrix clause:

(203)   *...nda ja saɓesi ntsie loŋotae.*

ń⁺da=ja   [sáɓ-ési~V~   ntsí-é~A~   lɔŋɔ́tá-~ɛ~O~]~PERIPHERAL~

and=ADV   kill[PL]-INF[OBL]   he-GEN   enemies-GEN

...and then he killed the enemies ('the killing of him of enemies').

Finally, a nominalized complement clause can occur as a predicative nominal in a verbless copula clause like the one in (204). This clause was uttered to an elder as an explanation for the aches and pains of growing old:

(204)   *Dunesio ata dee.*

dún-ési-o   át-á=⁺déé

age-INF-COP   FILL-NOM=ANPH.SG

That thing (i.e. feeling ill) is ageing.

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A second complementation strategy employed by Ik is clause chaining. After a main verb there may follow a sequential or simultaneous clause acting in a complementary role. If the subordinate clause is sequential, then it expresses an activity occurring after the main verb, either logically or chronologically. If the subordinate clause is simultaneous, then it expresses an activity loosely cooccuring with the main verb (see §10.2).

The deontic verb *ɪtámáán-* 'behoove, necessitate' (cognate with Teso-Turkana *ɪtamakɪna*) serves to illustrate both types of clause chaining since it can occur with either one. In first example (205), *ɪtámáán-* acts as the main verb in the initial main clause, followed directly by the sequential verb *déíduo* 'and you (sg.) bring' which is complementary to it:

(205) *Itamaana deiduo bonitiicika muŋ.*
[ɪtámáán-a   [dé-ídu-o   boniti-icík-á muŋ]ₛₑℚ]ₘₐɪₙ
behoove-REAL bring-2SG-SEQ kind-PL-NOM all
You must bring all the various kinds.
('It behooves, and you bring all the various kinds.')

The next example involves *ɪtámáán-* again but this time with a simultaneous clause containing the simultaneous verb form *béɗétííkᵉ* 'I looking for':

(206) *Itamaana beɗetiike konienia awee bik.*
[ɪtámáán-á   [béɗ-ét-íí-kɛ   kɔ́ní-ɛ́ní-a   awé-é   bi-kᵉ]ₛɪₘₗ]ₘₐɪₙ
behoove-REAL want-VEN-1SG-SIML one-PSSM-ACC home-GEN you.SG-DAT
I must look for another home for you.
('It behooves, I looking for another home for you.')

9.13.3 Complement-taking verbs

The table in (207) presents a representative sample of Ik verbs that can take a *toimɛna*-complement as an argument. If any of these verbs uses other complementation strategies as well, these are also shown:

(207)   *Complement-taking verbs*

		toimɛna-	Nominalization	Sequential clause chain	Simultaneous clause chain
bɛ́ɗ-	'want'	✔	✔		✔
en-	'see'	✔	✔		✔
ikoŋ-	'swear'	✔			
ɪtámáán-	'behoove'			✔	✔
fiye-	'know'	✔	✔		
kʊt-	'say'		✔		
nesíb`-	'hear'	✔			✔
tam-	'think'	✔			
tóɗ`-	'speak'	✔			
tɔnʊp-	'believe'	✔			
tópéɗ-úƙót-	'be able'		✔		

9.14 Reported speech

The Ik quote formula for reported speech consists of the verb *kʊt-* 'say' with a subject-agreement suffix cross-referencing the speaker. This is then followed by the addressee in the dative case if mentioned. After this may come the quotative particle *taa* (a reduced and grammaticalized form of *kʊta* 's/he says', like the Turkana irregular verb form *ɛbɛ́* used as a quotative; Dimmendaal 1983:470), and then of course the quotation itself:

(208)   *Reported speech*:   kʊt-SPEAKER (ADDRESSEE-DAT) (taa) S_{QUOTE}

A couple of examples of this quotative formula in context are as follows:

(209) *Kutia ntsie, "Itemat."*

    kʊt-ɪa-a   ntsí-é   [itém-át-ᵃ]_QUOTE

    say-1SG-SEQ   s/he-DAT   befit-3PL-REAL

    And I said to her, "They are right."

(210) *Kutata biraa koroɓaa ŋabat.*

    kʊt-át-a   [bɪra-a   kɔrɔɓá-a   ŋáb-at-ᵃ]_QUOTE

    say-3PL-REAL lack-REAL thing-NOM wear-3PL-REAL

    They say there is nothing they are wearing.

As Serzisko correctly pointed out, both direct and indirect speech can be reported with the direct quote formula given above (1987:72-73). In other words, when the verb *kʊt-* is involved, both types of reported speech are encoded grammatically as if they were direct quotations. An indirectly encoded quotation would require that the quotation be a complemental argument of the verb. But this is not possible with the *kʊt-* formula.

Rather, as expected crosslinguistically (Kroger 2005:226), a quotation found in the formula above is not treated as an argument of the verb *kʊt-*. Instead, it is an extra-syntactic sentential 'complement'. This can be seen in Ik from two angles. First, unlike the complementizer *toimɛna-* (§9.13.1), the quotative particle *taa* is invariable, that is, not inflected for case. Second, when the content of an indirect quotation is the interrogative pronoun *isi-* 'what?' instead of a full sentence, *isi-* takes the oblique case, the case that is used for, well, oblique arguments. This can be seen in the next example:

(211) *Kutana taa isi roɓa?*

    kʊt-an-a   táá   [isi]_QUOTE [roɓa]_VOCATIVE

    say-IPS-REAL QUOT what[OBL] people[OBL]

    It is said (that) what, people?

    What shall we say, folks?

If a quote in Ik were treated grammatically as an argument of the verb (as in indirect quotes), nominative case (for 1st and 2nd person subjects) and accusative case (3rd person subjects) would have to be indicated somewhere, e.g. on a complementizer or on *isi-* if it was filling the quotation slot. Compare the following grammatical and ungrammatical sentences:

(212)   *Kuta is?*   ***Kuta isik?*

kʊt-a   [is]$_{QUOTE}$ **kʊt-a   [ísi-kᵃ]$_{QUOTE}$

say-REAL   what[OBL]   **say-REAL what-ACC

What does she say?   What does she say?

From the examples above, it can be seen, then, that a quotation in Ik is not a core argument—nominal or complemental—of the verb *kʊt-*. Nevertheless, both direct and indirect speech can be reported, as the following show:

(213)   *Kuta Lomeria, "Atsesi."*

kʊt-a   lomerí-a   [ats-és-í-∅]$_{DIRECT.SPEECH}$

say-REAL   Lomeri-NOM   come-INT-1SG-REAL

Lomeri says, "I'm coming."

(214)   *Kuta Lomeia atses.*

kʊt-a   lomerí-a   [ats-és-∅]$_{INDIRECT.SPEECH}$

say-REAL   Lomeri-NOM   come-INT-REAL

Lomeri says he's coming.

Both (213) and (214) are directly encoded, though they encode direct and indirect speeches, respectively. Because of this structural ambiguity, both sentences are 'opaque' (Serzisko 1987:72) with regard to the reference of the subjects within each quotation. Without context, it is not known which of the following translations would best represent the data above:

(215)   For (213):   Lomeri$_A$ says, "I$_A$ am coming."

                       Lomeri$_A$ says I$_B$ am coming.

(216)   For (214):   Lomeri_A says he_A is coming.
                           Lomeri_A says he_C is coming.
                           Lomeri_A says, "He_C is coming."

Serzisko suggests that the quotative particle *taa* is obligatory for indirect quotations (1987:74), but this has not been confirmed in my data. It seems, rather, that its use is optional and flexible. For example, it even shows up before the main verb, as in *taa kʋtaná taa* 'That it is said that…'.

In his 1987 study of the verb *kʋt-*, Serzisko insightfully traces out the various paths of development the verb has taken in Ik. Besides merely reporting speech, it is also used as a verb for thinking, naming, intending, wanting, and communicating a sound or even an event. Each of these developments is given one example in the following sentences:

(217)   Thinking: *Kutia keɗe buo nak.*
                           kʋt-í-á   keɗe   bu-o = nák^a
                           say-1SG-REAL   or   you.SG-COP = PST1
                           I thought maybe it was you.

(218)   Naming: *Kutana edie ntsie is?*
                           kʋt-an-a   édi-e   ntsí-é   is
                           say-IPS-REAL name-DAT   s/he-GEN   what[OBL]
                           What is she called/what is her name?

(219)   Intending: *Kutia ƙone awak.*
                           kʋt-í-á   ƙó-ne   awá-k^e
                           say-1SG-REAL   go-1SG[OPT] home-DAT
                           Well, I'm about to go home.

With regard to its intending function, the verb *kʋt-* may have grammaticalized into the So future time marker *kɔ-* (cf. Carlin 1993:58).

(220)   Sound: *Kutini wir!*

                            kʊt-ɪnɪ   wir

                            say-3PL[SEQ]   IDEO

                            And they went *zoom*!

(221)   Event: *Kutoo kiɟa lɛɟ.*

                            kʊt-ɔ-ɔ   kíɟ-á   lɛɟ

                            say-3SG-SEQ land-NOM   IDEO

                            And the land caught on fire.

All the examples above retain the surface structure of a quotative sentence, even though they have developed semantically in various ways. One further development of *kʊt-*, however, takes as an argument a noun or a nominalized verb in the dative case. Perhaps in the surface structure, the nominalized argument takes the slot of an addressee (hence the dative case) instead of the quotation. In this usage, *kʊt-* acts as a sort of modal verb, expressing desire/intention in (222) and action toward something in (223):

(222)   Modal 1:   *Kutata idzesie...*

                            kʊt-át-a   ídz-esi-e… (Serzisko 1987:82)

                            say-3PL-REAL   shoot-INF-DAT

                            Then they shot…

(223)   Modal 2:   *Kwiidoo moɗeripak.*

                            kʊ(t)-ídɔ-ɔ   mɔ́ɗɛ́-ripa-kᵉ (Serzisko 1987:85)

                            say-2SG-SEQ groud.bee-hole-DAT

                            And you jumped in the ground-bee hole.

9.15 Comparative constructions

Ik has two types of comparative construction. One is a mono-clausal construction and the other bi-clausal (types A2 and F, respectively, in Dixon's system of classification; 2012:350, 358). The discussion here uses the following terms, borrowed from Dixon (2012:344):

(224) *Comparative construction terminology*

COMPAREE	that which is being compared
STANDARD	what the comparee is being compared to
PARAMETER	the gradable property shared in the comparison
INDEX	degree to which the comparee differs from standard
MARK	marker of the grammatical function of the standard

Accordingly, the following table lays out the components of Ik's two types of comparative construction, each of which are then described below:

(225) *Ik comparative constructions*

	Type A2 (mono-clausal)	Type F (bi-clausal)
COMPAREE	S in NOM case	A in NOM case
STANDARD	NP in ABL case	NP in ACC case
PARAMETER	head of intransitive predicate	head of initial predicate (intrans. or trans)
INDEX	—	transitive medial verb (e.g. *ilɔ-* 'defeat')
MARK	ABL case	ACC case

9.15.1 Mono-clausal comparative construction

The Type A2 comparative construction in Ik is mono-clausal: All its components fall within a simple clause. The comparee is the subject of an intransitive predicate, usually an adjectival verb. The standard against which the comparee is compared is a peripheral argument in the ablative case. In this type of comparative construction, there is no index:

(226) *Zeia nka bu.*

[ze-í-á]_{PARAMETER} [ŋ́k-a]_{COMPAREE} [bu-∅]_{STANDARD}

big-1SG-REAL   I-NOM   you.SG-ABL

I am older than you (lit. 'I am big from you.').

(227) *Maraŋa ɗa na*

[maráŋ-á]_{PARAMETER} [ɗ-a=na]_{COMPAREE}

good-REAL   one-NOM=DEM.SG

kiɗoo ke.

[kɪ=ɗɔ-ɔ́=kɛ]_{STANDARD}

DIST=one-ABL=DEM.SG.DIST

This one is better than that one (over there).

This type of construction is susceptible to some ambiguity. When the head of an intransitive predicate is an adjectival verb followed by a non-core argument in the ablative case, the sentence can have a different meaning than comparison. Note the two possible interpretations of this statement:

(228) *Gaana ncu.*

gaan-a   ɲcu-∅

bad-REAL   I-ABL

a) S/he/it is worse than me.

b) S/he/it is bad to me (according to me).

The ambiguity lies in the fact that the ablative can encode the experiencer role as well as the standard of comparison. The choice between the two interpretations must be made on pragmatic, contextual grounds.

9.15.2 Bi-clausal comparative construction

Type A2 comparative constructions in Ik serve to compare two entities in terms of a gradable property (parameter). Type F constructions can do the same thing, as well as compare in terms of any parameter, be it a state or an action. Type F constructions are bi-clausal. The first clause is the initial clause in a bi-clausal chain, either intransitive or transitive, for example:

(229)   *Kwatsa...*   *Tokobiya eɗia...*
        kwáts-á   tokob-i-a   edí-á
        small-REAL   farm-PLUR-REAL   grain-ACC
        It's small…   He farms grain…

To such simple clauses as these can be added a comparative clause with a medial verb, either sequential or simultaneous. One medial verb Ik uses is *ılɔ́-* 'defeat' which has close parallels in Karimojong (*-lɔ́*) and Turkana (*-láɲ*). (The Teso-Turkana infinitive form *akı-lɔ́* is often used in Ik instead of *ılɔ́-*; besides comparison, it can be used to mean 'instead (of)'.) In this comparative chained clause, the comparee is still the subject as in the main clause but must be A even if it is an S in the main clause. This is because *ılɔ́-* is a transitive verb. Its O then is the standard of the comparison. So the simple clauses in (229) may be extended as follows:

(230)   *Kwatsa ntsa iloyee ncik.*
        [kwáts-á   nts-a]$_{\text{INITIAL}}$ [ılɔ́-í-ɛ́   ɲci-kᵃ]$_{\text{MEDIAL}}$
        small-REAL   he-NOM   defeat-3SG-SIML   I-ACC
        He's smaller than me (lit. 'He's small, he defeating me').

(231)   *Tokobiya eɗia iloyoo ngwaa muɲ.*
        [tokob-iy-a   edí-á]$_{\text{INITIAL}}$ [ılɔ́-í-ɔ   ŋgó-á   muɲ]$_{\text{MEDIAL}}$
        farm-PLUR-REAL grain-ACC   defeat-3SG-SEQ   we.EXC-ACC   all
        He farms grain more than all of us (lit. 'and defeats us all').

Some verbs like *kwáts-* 'small, young' and *ze-* 'big, old' can appear in either type of comparative construction but with different meanings. For example, the sentence *kwátsía bu* can only mean either a) 'I am younger than you' or b) 'I am lower than you in status'. To get the meaning 'I am smaller than you', a Type F construction must be used: *kwátsía ılɔ́ıaa bi*.

9.15.3 Equative clauses

To compare two equal or nearly equal entities, Ik uses two verbs instead of a special syntactical construction. These verbs are *ikwáán-ón* 'to be the same, similar in quality' and *iryáán-on* 'to be the same, similar in physical characteristics (like size or shape)'. Both of these verbs have Teso-Turkana parallels in *aki-kwaan* and *a-rian* 'to be equal' (Barrett 1988:70).

(232)   *Ikwaanida nda babo.*

ikwaan-íd-a   ń‡da   bábo

be.same-2SG-REAL   with   your.father[OBL]

You resemble your father.

(233)   *Nta dakwitina ni iryaanat.*

ńt-á   dakw-itín-á = ni   iryaan-át[i]

not-REAL   tree-PL-NOM = DEM.PL   be.similar-3PL

These trees are not the same.

9.15.4 Superlative clauses

Ik also has no special construction to express superlativeness either. Instead, it simply adds the adjective *mụŋu* 'all' to modify the standard in Type F comparative constructions, making the standard a universal plural, e.g.:

(234)   *Toda maraŋie iloyoo roɓaa mụŋ.*

tód-a   maráŋ-í-e   ılɔ́-í-ɔ   roɓa-a   mụŋ

speak-REAL   good-3SG-SIML   defeat-3SG-SEQ   people-ACC   all

He speaks better than everyone else (lit. 'and defeats all people').

9.16 Negation

Negation in Ik is signaled by a combination of highly irregular, paradigm-less negator verbs (235 below) and irrealis marking on the negated verb. The negator verbs show agreement for an impersonal 3-person subject. One of them, *ńt-*, always appears in the realis modality with a negated complemental main verb in the irrealis modality. The other, *ma-/na-*, can appear in either the realis or irrealis modalities (in the sequential aspect as *moo/noo*). For past and present perfect tenses, its verbal complement is in the irrealis modality, while for prohibitives (negative imperatives), the complement is in the realis modality. Beyond these two negator verbs, two lexical verbs, *bɪrá-* and *bení-*, are used to negate copula of location and copula of identity verbs, respectively. The table in (235) presents the negator verbs with the verb and clause types they can negate:

(235)   *Ik negator verbs*

	Verb type	Clause type
ńt-	Non-past realis	Main
ma-/na-	a) Past realis	Main
	b) Present perfect	Main
	c) Imperative	Main
(as *mo-o/no-o*)	d) Irrealis	Subordinate

The negating morphemes presented in (235) are analyzed here as defective verbs rather than merely negating particles for the following reasons:

1. They fill the clause-initial slot, which is reserved for the main verb.
2. They take modal suffixes (e.g. realis {-a} and sequential {-(k)ɔ}).
3. The negator *ma-/na-* can be modified by tense enclitics, which only modify the clause predicate.
4. The irrealis (sequential) negator *moo/noo* can bear the dummy pronominal enclitic {=´dɛ}, which otherwise attaches only to verbs.

In terms of etymology, the Ik negator verbs can be traced to ancient proto-Nilo-Saharan forms (Ehret 2001:218-223). The realis-negating verb *ńt-* likely originates in the proto-'Northern Sudanic' suffix **-to* that is believed to have also negated indicative clauses. Though perhaps this ancient negator crossed phyletic boundaries into Afroasiatic, if the Cushitic language Afar's defective negating morpheme *-innio* is any indication (Mahaffy, n.d., p. 33). According to Ehret, the prefix *n-* in the Ik *ńt-* developed as an independent morpheme, though its function may not be reconstructable today.

For its part, the Ik negator verb *ma-/na-* seems obviously related to the proto-'Eastern Sahalian' prefix **má-* that is said to also have negated irrealis clauses (Ehret 2001:218-223). It too has widespread Nilo-Saharan and Afroasiatic reflexes. For example, Turkana's defective negator *mɛɛrɛ́* is believed to consist of the morphological sequence **ma-ɛ-ra-ɪ* of which the first is the negator **ma-* (Dimmendaal 1983:453). A parallel is also found in the Lowland Cushitic languages Afar and Saho: In Afar, the 'principal negator' is *ma-* (Mahaffy, n.d., p. 20), while in Saho, the negator of imperative and imperfective clauses is *ma-* or *mi-* (Banti & Vergari 2005:7).

And although the Ik parallel usually appears with H-tone as *máa* or *náa*, it is analyzed as *ma-/na-* on the hypothesis that it was (is?) used with the present perfect suffix {-ˊka} with its floating H tone. This was first postulated by Heine & König (1996:89) and is corroborated by Ik's sister Kuliak language So's 'perfective negator' that has the form *mak* (Carlin 1993:58). The Ik negator *ma-* together with its present perfect suffix {-ˊka} would produce the final form **má-kᵃ* and the non-final form *má-a*. A form like **má-kᵃ* is preserved in So but lost in Ik because: 1) Negator verbs never occur clause-finally (where the final form of {-ˊka} could appear), and consequently, 2) the /k/ is lost in clause-initial positions leaving only *má-a*. This analysis would also help explain why the sequential form is *mo-o* and not *mó-o*. But because the analysis is still a bit speculative, the form *má-á/ná-á* or *má-a/ná-a* is glossed throughout the grammar as *not-REAL* instead of *not-PRF*.

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9.16.1 Indicative and interrogative

Non-past, indicative, realis clauses are negated with *ńt-*, which then takes the morphologically negated verb as a complement in the irrealis modality:

(236) *Kod.*   *Nta ƙod.*

    ƙó-d-ᵃ   →   ńt-á   ƙó-dⁱ

    go-2SG-REAL   not-REAL   go-2SG[IRR]

    You're going.   You're not going.

Indicative and interrogative clauses are both negated the same way:

(237) *Nta ƙaat.*   *Nta ƙaati?*

    ńt-á   ƙá-átⁱ   ńt-á   ƙá-átì_INTERROG

    not-REAL   go-3PL[IRR]   not-REAL   go-3PL[IRR]

    They aren't going.   Are they not going?

The only difference between the two sentences in (237) is phonological: The final vowel of the 3PL suffix is fully voiced in the interrogative mood.

Past tense realis clauses are negated with *ma-/na-* in the realis modality (and/or present perfect aspect?; see last paragraph on p. 583), with the negated verb as a complement in the irrealis modality:

(238) *Maa naa ƙod.*

    má-á=naa   ƙó-dⁱ

    not-REAL=PST1 go-2SG[IRR]

    You didn't go (earlier today).

Subordinate clauses and sequential medial clauses are negated with *moo/noo*, which is analyzed here as the negator verb *ma-/na-* plus the sequential aspect suffix {-(k)ɔ}. As with the realis *máa/náa*, the negated verbal complement of *moo/no* is in the irrealis modality. Examples include:

(239) Relative clause: *ɗa moo kodid*

                        ɗ-a   mó-o   ƙó-di = dᵉ

                        one-NOM   not-SEQ go-2SG[IRR] = DP

                        the one (that) you don't go to

(240) Chained clause: *...moo kod.*

                        mo-o   ƙó-dⁱ

                        not-SEQ go-2SG[IRR]

                        ...and you don't go.

An interesting structural feature of Ik negation is that while the negator verbs function as the main verb of the clause and are marked for an impersonal 3SG subject, the subject of the negated verb, if overt, fills the normal syntactic slot for subject. Compare the following sentences:

(241) *Koyaa bee nk.*

        ƙó-í-a = bee   ŋk-ᵃ

        go-1SG-REAL = PST2   I-NOM

        I went (yesterday).

(242) *Maa bee nka ƙoi.*

        má-á = bee   ŋk-a   ƙó-íⁱ

        not[3SG]-REAL = PST2   I-NOM   go-1SG[IRR]

        I didn't go (yesterday).

In (241), a normal VS intransitive clause, the removed past tense clitic = *bee* follows the verb and is then followed by the overt subject *ŋkᵃ* 'I'. Then, in (242), the tense clitic follows the negator verb as it would a main verb. The clause's semantic subject, *ŋ̂ka*, then follows the tense clitic as if it were the subject of the negating verb. However, it is in fact the subject of the complement verb *ƙóíⁱ* that follows it. It is interesting to note that in most types of subordinate clauses, any overt preverbal subject would take the accusative case. So in (242) there seems to be a mismatch between syntax

and semantics: The syntax treats *ŋ́ka* like the main clause's subject, while semantically, it is the subject of the following complemental verb *kóíʲ*.

Ik can only negate full dependent and independent clauses. It has no derivational processes for creating negative lexemes. Neither can smaller clausal constituents like noun phrases be negated morphologically. They can be negated syntactically and semanticaly by first being topicalized. To illustrate this, the verb *bɪrá-* 'not be' in the following sentences negates various clausal arguments that are modified by headless relative clauses:

(243)   *Biraa ama iya naye na.*
        bɪra-a   ám-á   i-a   naí-é = na
        not.be-REAL person-NOM   be-REAL   here-DAT = DEM.SG
        Nobody is here (Lit. 'There is no person (who) is here.').

(244)   *Biraa ama ntsia iŋaaresad.*
        bɪra-a   ám-á   ntsí-á   ŋaar-ɛs-á = dᵉ
        not.be-REAL person-NOM   s/he-ACC   help-INT-3SG = DP
        He is helping nobody (Lit. 'There is no one he is helping.').

(245)   *Biraa keda ƙaad.*
        bɪra-a   kéd-a   ƙá-á = dᵉ
        not.be-REAL place-NOM   go-REAL = DP
        He's going nowhere (Lit. 'There is no place he is going to.').

9.16.2 Prohibitive

The structure of imperative versus prohibitive clauses is quite different in Ik. In an imperative clause, the bare verbal stem is given the singular imperative suffix {-ɛ́} or the plural imperative suffix {-íɔ́}. But in a prohibitive clause, no special morphemes are involved. Instead, the prohibitive construction consists of the negator verb *ma-/na-* with a conjugated verbal complement in the realis modality, for example:

(246) *Kae!*   *Maa ƙod!*

    ƙa-eˊ   →   má-á   ƙ-ód-ᵃ

    go-IMP.SG   not-REAL   go-2SG-REAL

    Go!   Don't go!

(247) *Ogoe ƙai.*   *Maa ƙa.*

    ógo-e   ƙa-iˊ   →   má-á   ƙa-∅

    let-IMP.SG go-3SG[OPT]   not-REAL   go[3SG]-REAL

    Let him go.   Don't let him go.

Semantically, these prohibitives are 'irrealis' in the sense that the predication has not happened and is even forbidden from happening. However, grammatically, the Ik prohibitive is marked as 'realis' with the realis suffix {-a} (implying temporal actuality) on both the negating verb and the complemental main verb. This kind of 'polarity reversal'—where negative imperatives occur with realis suffixes—is reportedly only rarely attested in other languages around the world (Dixon 2012:112).

9.16.3 Copula clauses

Although the copula of identity (*mɪt-*) and the copula of cocation (*i-*) can be negated with either negator verb, Ik also has two lexical verbs that function as negative copulae. These negative copulae seem to have been (partly) grammaticalized from the synchronic lexical verbs *bɪrá-* 'lack' and *bení-* 'be unique'. The sentences below illustrate both ways copular verbs can be negated—first with negator verbs and second with negative copulae. Note how morphological case suffixes change going from one type to the other:

(248) *Nta ntsa iyi awak.*

    ńt-á   nts-a   i-i   awá-kᵉ

    not-REAL   s/he-NOM be-3SG home-DAT

    She's not at home.

(249) *Biraa ntsa awao.*

bɪra-a   nts-a   awá-ᵒ

not.be-REAL s/he-NOM   home-ABL

She's not at home (lit. 'She lacks from home.').

(250) *Nta nka mitii waanaam.*

ńt-á   ŋk-a   mɪt-íí   wáána-am

not-REAL   I-NOM   be-1SG   visitor-AGT.SG[OBL]

I am not a visitor.

(251) *Benia nka waanaamak.*

beni-a   ŋ́k-a   wáána-ama-kᵒ

not.be-REAL I-NOM   visitor-AGT.SG-COP

I am not a visitor (lit 'It is not, I am a visitor.').

As described earlier (§9.10.1), Ik verbless copulative clauses consist of nouns inflected with the copulative case suffix {-kɔ}. These clauses are negated with the negative copula *bení-*. When this occurs, the complement of the negative copula can take either the nominative or copulative case.

(252) *Ɲekek.*   *Benia ɲekek.*

ɲɛƙɛ-kᵓ   beni-a   ɲɛ́ƙɛ-kᵓ

hunger-COP   not.be-REAL hunger-COP

It's hunger.   It's not hunger.

(253) *Ncuk.*   *Benia ncuk/nk.*

ńcu-kᵒ   beni-a   ńcu-kᵒ/ŋk-ᵃ

I-COP   not.be-REAL I-COP/I-NOM

It's me.   It's not me.

In (252), the noun *ɲɛƙɛ-* receives a H tone on its first syllable as a result of high-tone insertion disrupting a sequence of more than three L tones.

9.16.4 Negative tags

Ik has two negative 'tags' that can be used following either positive or negative statements. When they are used, the speaker normally expects a corresponding positive reply. These tags and their replies are as follows:

(254) *Nta kamatii?*   *Kamatad!*

 ńt-á   ƙám-átì = ì_{INTERROG}   ƙám-át-a = dᵉ

 not-REAL be.like-3PL[IRR] = DP   be.like-3PL-REAL = DP

 Are they (i.e. words) not like that?   They are like that!

(255) *...keɗe benia nti?*   *Ntia ɟa!*

 keɗe   beni-a   ńtí   ńtí-a = ɟa

 or   not.be-REAL like.that   like.that = ADV

 ...or is it not like that?   Just like that!

Finally, Ik has both positive and negative independent polarity particles: *ee/éé* 'yes' and *ńtóodó* 'no'. The particle *ńtóodó* seems to be morphologically complex, though it cannot be fully parsed out. In any case, it seems to incorporate the negator verb *ńt-*. In Ik, contrary to English, a negative reply to a negative question can be preceded by *ee/éé* 'yes', and positive reply to a negative question can be preceded by *ńtóodó* 'no'. Consider the following:

(256) Negative question: *Nta beɗidi?*

 ńt-á   béɗ-ídì_{INTERROG}

 not-REAL   want-2SG[IRR]

 Don't you want (it)?

(257) Possible answers:

 Ee, nta beɗi.   *Ntoodo, beɗi.*

 ee ńt-á   béɗ-íˈ   ńtóodó   béɗ-í-∅

 yes not-REAL   want-1SG[IRR]   no   want-1SG-REAL

 Yes, I don't want (it).   No, I want (it).

10　Sentences and Beyond

Up to this point, the discussion of syntax has been concerned with the formation of individual noun phrases and clauses, main and subordinate. It has also covered the formation of complex sentences that combine a matrix clause with a subordinate clause. The present chapter moves beyond clause-level syntax to examine the joining of two or more main clauses (§10.1) and Ik's primary clause-linking strategy—clause chaining (§10.2).

10.1　Clause coordination

Clause 'co-subordination', or clause chaining, is the language's preferred method for linking clauses. However, the coordination of two independent clauses is also observed. Such coordination, the topic of the following section, can be used to communicate a relationship of addition, contrast/counter-expectation, or disjunction between two or more clauses.

10.1.1 Additional

The addition of one independent clause to another is usually handled by first nominalizing the second clause and then joining it to the first clause with the connective *ńda* 'and'. Once the second clause is nominalized, it is then treated syntactically as a peripheral, oblique argument. This is reflected morphologically by the fact that the main verb of the nominalized clause takes the oblique case. Here are some examples:

(1)　*Hoɗetuo bilikeretea nda imoɟiresi ɦyukumui.*

hóɗ-ét-u-o	bílíkɛrɛté-á	ńda ımɔ́ɟír-ɛ́sí	ɦyʊkʊmú-ˈ
free-INCH-3SG-SEQ	spurfowl-ACC	and twist-INF[OBL]	neck-GEN

He then freed the spurfowl and twisted its neck.

('And he freed the spurfowl and the twisting of its neck.')

(2) *Gameese ɉa gwee na nda ats'esuƙot.*

gám-é-ese = ɉa   gwé-é = na   ńda áts'-ɛ́s-ʊƙɔt'

kindle-INCH-SPS = ADV   bird-DAT = DEM.SG   and eat-INF-COMP[OBL]

So then a fire was made for the bird, and it was eaten.

('And it was kindled for this bird and the eating.')

(3) *Keesia Kaaɓoŋie ts'oo nda poroni barats.*

ƙe-es-í-a   kaaɓɔ́ŋɪ-ɛ   ńda pór-óni   barats-°

go-INT-1SG-REAL Kaabong-DAT and   proceed-INF[OBL] morning-INS

I'm going to Kaabong and will proceed in the morning.

('I'm going to Kaabong now and the proceeding in the morning.')

If the subject of an added second clause needs to be made explicit (same or different from the first clause), it can appear in one of two positions: 1) before the nominalized verb in the oblique case or 2) after the nominalized verb in the genitive case. In position (1), its takes the oblique case because the preposition *ńda* interprets it as a peripheral argument of the first clause (see example 4). In position (2), it takes the genitive case because it modifies the NP head which is the nominalized verb (see example 5):

(4) *...nda ɉa nci atsoni awak.*

ńda = ɉa   ɲci   ats-oni   awá-kᵉ

and = ADV   I[OBL]   come-INF[OBL] home-DAT

...and then I came home ('and I to come home').

(5) *...nda ɉa atsoni ncie awak.*

ńda = ɉa   ats-oni   ɲci-e   awá-kᵉ

and = ADV   come-INF[OBL]   I-GEN   home-DAT

...and then I came home ('and to come of me home').

From the position of *ɲci* in (4), one might suspect that it is the first term in a compound with *ats-on* 'to come'. However, the first term in a compound often changes the tone of the second term. In light of this, compare the

following phrases which contrast the type of nominalized clause in (4) with a compound. The ungrammaticality of the second phrase shows that the structure in (4) does not in fact involve a compound. Otherwise, the tones on the nominalized verb *ats-on* in the second example would be changed:

(6)   *...nda ntsi atson.*   ****...nda ntsi-atson.*
        ńda   ntsi   ats-on   **ńda   ntsí-áts-on
        and   she[OBL]   come-INF[OBL]   **and   she-come-INF[OBL]
        ...and she came.   ...and she came.

Double imperatives are grammatical in the language (see §7.7.6). But a relationship of addition between two imperatives is can also be encoded by using the imperative mood for the first imperative, then either the sequential aspect (7) or a nominalized verb (8) for the second, for example:

(7)   *Maxane ŋookee, kwiidoo ntsie ats.*
        máʃán-ɛ   ŋóo-keé   kʊ(t)-ɪdɔ-ɔ   ntsí-é   ats-∅
        greet-IMP.SG your.mother-DAT say-2SG-SEQ   she-DAT   come-IMP.SG
        Greet you mother, okay, and tell her to come.

(8)   *Kae koo ke nda zeƙwetoni kiɟak.*
        ƙa-e   kɔ́ɔ́=kɛ   ńda   zɛƙw-ɛ́t-ɔ́nɪ   kíɟá-kᵉ
        go-IMP.SG there=DEM.DIST and   sit-INCH-INF[OBL]   ground-DAT
        Go over there and sit down (on the ground).

10.1.2 Contrastive

In its most basic expression, contrast or counter-expectation (as well as addition) can be communicated in Ik through simple parataxis, or 'intonational coordination' (Serzisko 1992:120). Such apposition of two main clauses leaves the precise pragmatic interpretation up to the context. However, the clitic-like adverb *(=)kɔtɔ* is typically present to enhance the utterance with such notions as 'then', 'so', 'and', and 'but', for example:

(9)   *Benia ncuk, buo kot.*
      bení-á   ɲcu-kᵒ ‖ bu-o = kótᵒ
      not.be-REAL I-COP   you.SG-COP = ADV
      It's not me, rather it's you.

(10) *Ogoe ntsi yeti bi.*
      ógo-e   ntsi   ɪɛ́t-í   bi
      let-IMP he[OBL] save-3SG[OPT] you[OBL]

      Naa koto moo beɗ,…
      náá = koto mo-o   bɛ́ɗ-ᴵ
      CONJ = ADV not-SEQ want-3SG
      Let him save you. But if he doesn't want to,…

Some Ik speakers, especially those having learned other languages, find alternative ways to express contrast. This may be for example, by borrowing a contrast word from Karimojong (*naít*) or Swahili (*lakini*).

10.1.3 Disjunctive

Disjunction is signaled by the presence of the disjunctive *keɗe* (which has the parallel *kori* in Teso-Turkana). Like *ńda* 'and/with', *keɗe* 'or' can link both noun phrases and independent clauses. The following examples illustrate disjunction with *keɗe* and variety of verb and clause types:

(11) *…paka deese yaŋa keɗe kwaatese nk.*
      paka   d-é-ese   yáŋ-a   keɗe   ƙwaát-é-ese   ŋ́kᵃ
      until   bring-VEN-SPS my.mother-NOM or   birth-VEN-SPS I-NOM
      …until my mother is brought (i.e. married) or I am born.

(12) *Ogoe ŋaɲosik,…*
      ógo-e   ŋáɲ-ós-ɪ-kᵉ
      let-IMP.SG open-PASS-3SG-SIML

keɗe egee koneeni koroɓadi.

keɗe	egé=e	kɔ́né-éní	kɔ́rɔ́ɓádi-∅
or	put-IMP.SG=DP	one-PSSM[OBL]	thing-GEN

Leave it open, or put something on it.

(13) *Kamiya noo ɗie keɗe maa noo kamiyid?*

ƙám-i-a=noo	ɗí-é	keɗe máá=noo	ƙám-i-í=dᵉ
like-PLUR-REAL=PST3	ones-DAT	or not-PRF=PST3	like-PLUR-3SG=DP

Was it like these, or was it not like these?

10.2 Clause chaining

Clause chaining is the linchpin of Ik discourse. As defined here, it is the linking of one or more clauses with non-finite verbs to a clause with a finite verb. The syntactic relationship between the initial or controlling clause and the chained clauses is the subject of debate; some describe it as 'quasi-coordinate' (Haiman & Monroe 1983:xii) and others as 'co-subordination' (Van Valin & LaPolla 1997:455). It is not clearly coordinative or subordinative and thus may be considered a hybrid of the two (Schröder 2013a:2). In Ik, chained sequential clauses are more coordinative, while chained simultaneous clauses seem more subordinative.

In many languages, particularly outside of Africa but also in Ethiopia, a clause chain begins with a sequence of non-finite clauses culminating in a final clause that bears the TAM specifications of the whole chain. But in Ik, as in neighboring Teso-Turkana languages like Toposa, the clause chain begins with the controlling finite clause and is then followed by one or more non-finite clauses (Schröder 2013b:5). This 'post-nuclear' orientation of the clause chain is well-attested in Africa but rarer elsewhere (Payne 1997:321)

Ik exhibits two kinds of chained clause: sequential and simultaneous. The markers or indicators of these clauses are the verbal inflectors that bear the same labels (§7.8.1 for sequential, §7.8.2 for simultaneous). As the label

implies, sequential clauses in a clause chain carry the sequence of mainline or foregrounded information in any kind of text with sequential events. Simultaneous clauses, on the other hand, convey offline contextual circumstances that cooccur with events or states in clauses preceding them. The initial, controlling element that creates the TAM setting for a clause chain may consist of any non-chained verb or even an adverbial phrase.

10.2.1 Sequential clause chains

The analysis of sequential clause chaining in this grammar is only preliminary. But it should serve as an introduction to what could turn out to be a fruitful topic. Sequential clause chains communicate sequential states or events. As such, they are the predominant clause type found in narratives. Because of that, the sequential aspect had previously been called the 'narrative mood' (e.g. Heine & König 1996:76). But sequential clauses are found in many types of discourse, from narrative to procedural to expository to exhortatory, even imperative. Sequential clauses are marked with a combination of high-tone suppression and an eclectic paradigm of special subject-agreement suffixes (see also §7.7.1). The following table presents the sequential paradigm for *bɛ́ɗ-* 'want' and *wet-* 'drink'. Note the inclusion of the sequential impersonal passive (SPS) marked by {-ɛsɛ́}:

(14)   *Sequential verb paradigm*

	Non-final	Final	Non-final	Final
1SG	bɛ́ɗ-ɪa-a	bɛ́ɗ-ɪa-kɔʼ	wet-ia-a	wet-i-a-kᵒʼ
2SG	bɛ́ɗ-ídʊ-ɔ	bɛ́ɗ-ídʊ-kɔʼ	wet-idi-o	wet-idu-kᵒʼ
3SG	bɛ́ɗ-ɔ́-ɔ	bɛ́ɗ-ʊ́-kɔ	wet-u-o	wet-u-kᵒ
1PL.EXC	bɛ́ɗ-íma-a	bɛ́ɗ-íma-kɔʼ	wet-ima-a	wet-im-a-kᵒʼ
1PL.INC	bɛ́ɗ-ísɪnɔ-ɔ	bɛ́ɗ-ísɪnʊ-kɔʼ	wet-isini-o	wet-isinu-kᵒʼ
2PL	bɛ́ɗ-ítɔ-ɔ	bɛ́ɗ-ítʊ-kɔʼ	wet-iti-o	wet-itu-kᵒʼ
3PL	bɛ́ɗ-ínɪ	bɛ́ɗ-ín	wet-ini	wet-in
SPS	bɛ́ɗ-ɛ́sɛ	bɛ́ɗ-ɛ́s	wet-ese	wet-esᵉʼ

The following excerpt from a 3-person narrative serves to illustrate some of the morphological, syntactic, and discourse characteristics of chained sequential clauses. Note the sequential markers in bold print and the introductory temporal phrase *na kónító ódoue baratso* 'One day, in the morning…' that sets the temporal context for the clause chain that follows:

(15)   *Na konto odowue baratsoo,*
       [na = kón-ít-ó   ódou-e   barats-oó]_{ADV}
       CONJ = one-SING-INS   day-GEN   morning-INS
       One day, in the morning,

       ipuo taƙaikak,
       [ip-u-**o**   taƙá-íka-kᵃ]_{SEQ1}
       cast-3SG-SEQ   shoe-ACC
       he cast (his) shoes (in divination),

       eguo taƙaika ebak,
       [eg-u-**o**   taƙá-ík-a   éba-kᵃ]_{SEQ2}
       put-3SG-SEQ   shoe-PL-NOM   gun-ACC
       and the shoes made (the shape of) a gun,

       ipuo naɓo,
       [ip-u-**o**   naɓó]_{SEQ3}
       cast-3SG-SEQ   again
       and he cast (them) again,

       egini ebak.
       [eg-**ini**   éba-kᵃ]_{SEQ4}
       put-SEQ   gun-ACC
       and they made a gun.

The chained clauses in (15) carry no TAM information apart from the sequential aspect that shows the semantic relationship of sequentiality with

all preceding clauses, starting with the temporal NP *baratsoó* 'in the morning'. What is not shown in (15) (for reasons of space) is that at the beginning of the narrative, the tense of the narrative is set in the remote past first of all with the adverbial phrase *kaɱ-ɔ=nɔɔ lopiarie* 'In the year of Lopiar,…', in which the relative pronoun *nɔɔ* marks remote past tense.

The clause chain in (15) is taken from a narrative, but sequential clauses are also found in other texts, for example one with an imperative controller:

(16)   *Kae Kaaɓoŋik,*

     [ƙa-e   kaaɓɔ́ŋɪ-kᵉ]ᵢₘₚ

     go-IMP.SG   Kaabong-DAT

     Go to Kaabong,

     dzigweiduo riy,

     [dzígw-e-idú-**ó**   ri-ᵃ]_SEQ1

     buy-VEN-2SG-SEQ   goat-NOM

     buy a goat,

     deiduo awak,

     [d-é-ídu-**o**   awá-kᵉ]_SEQ2

     bring-VEN-2SG-SEQ   home-DAT

     bring (it) home,

     toŋoliduk,

     [tɔŋɔ́l-ídʊ-**kˀ**]_SEQ3

     slaughter-2SG-SEQ

     slaughter (it),

     ilakasituƙodukoo ɟak.

     [ɪlák-ás-ɪt-ʊƙɔ-ɪdʊ-**kɔ́**=ɔ́   ɟák-ᵃ]_SEQ4

     happy-ABST-CAUS-COMP-2SG=DP   elders-NOM

     and make the elders happy with it.

The sequential impersonal passive (SPS; §7.9.4) is found in the same types of discourse as the non-passive sequential forms. Like the impersonal passive (§7.9.3), the SPS omits and depersonalizes the subject (A/S) of the verb to which it affixes. It is found on both transitive and intransitive verbs, as in *ŋk̂-ese* 'And it is/was eaten' and *ke-ese* 'It is/was gone (i.e. 'people went')'.

The following excerpt from an expository/procedural text illustrates the use of the suffix {-ɛsɛ́} encoding sequential passivized activities. In this text, part of the procedure for grinding snuff tobacco (a favorite among the Ik) is laid out in a step-by-step sequence. The agent carrying out the procedure is not in view, though all sequential verbs in this excerpt are transitive. In lines 2, 4, 6 & 7, the objects of the passivized verbs are overt, encoded as subjects in the nominative case. In line 5, they are left implicit:

(17) 1 *Naa iryametanie gwasak,*

       [náá   iryám-ét-an-í-έ   gwasá-kᵉ]_{ADV}

       CONJ   get-VEN-IPS-SIML stone-DAT

       When a stone is gotten,

   2 *ŋweese ɲaɓalaŋit.*

       [ŋʊ-**ɛsɛ**   ɲaɓáláŋɪt-ᵃˊ]_{SEQ1}

       grind-SPS   soda.ash-NOM

       soda ash is ground.

   3 *Naa ɲaɓalaŋitia iwidîmetik,*

       [náá   ɲaɓáláŋɪtí-á   iwíd-ím-et-i-kᵉ]_{ADV}

       CONJ   soda.ash-ACC   pulverize-MID-INCH-3SG-SIML

       When the soda ash is finely ground,

   4 *egesee lotoɓ,*

       [eg-**esé**=e   lɔ́tɔ́ɓ-ᵃ]_{SEQ2}

       put-SPS=DP   tobacco-NOM

       tobacco is put in it,

5   *nda ŋweese paka ɲapuɗumuƙotuk,*

    [ńda   ŋʊ-**ɛsɛ**   páka   ɲapúɗ-úm-uƙot-u-kᵒ]$_{SEQ3}$

    and   grind-SPS   until   powdery-PHYS2-COMP-3SG-SEQ

    and it's ground until it becomes powdery,

6   *ikakeese dakwin,*

    [ɪkáké-**ɛsɛ**   dakw-in-∅]$_{SEQ4}$

    separate-SPS   wood-POSS.PL-NOM

    and its woody stems are separated out,

7   *ogweese nayaa ɲapuɗum,*

    [ógo-**ese**   nay-á   ɲapúɗ-úm-∅]$_{SEQ5}$

    leave-SPS   where-NOM powdery-PHYS2-REAL

    and the powdery part is left,

8   *nda ipapeesi cuo misi mes.*

    [ńda   ɪpápé-ésí   cu-o   mísɪ   mɛs-ᵓ]$_{NOMALIZED\ COMPL}$

    and   moisten-SPS   water-INS either beer-INS

    and it is moistened with either water or beer.

As (17) shows, sequential clause chains can be interrupted and reinitiated by adverbial clauses expressing simultaneity, marked by the conjunction *náá*. Such clauses encode temporality relative to the sequential clauses that follow them, not the absolute temporality set by the controlling clause.

On a continuum between coordination and subordination, sequential clauses are more coordinative. This is reflected syntactically in their invariable VSO constituent order and canonical case marking, both characteristics of unmarked main clauses. The next examples—the first a non-past realis clause and the second a sequential clause—both have VAO order with nominative-marked subjects and accusative-marked objects:

(18) *Ceesa ntsa riyek.*   *Ceyoo ntsa riyek.*

cɛ-ɛs-á$_V$ nts-a$_A$ rié-kᵃ$_O$ cɛ-ɪ-ɔ$_V$ nts-a$_A$ rié-kᵃ$_O$

kill-INT-REAL   he-NOM goat-ACC   kill-3S-SEQ   he-NOM goat-ACC

He'll kill the goat.   And he killed the goat.

At the same time, chained sequential clauses are subordinate to, or dependent on, a preceding TAM-specifying element. In that sense, they are subordinate—but at a supra-clausal rather than intra-clausal level.

10.2.2 Simultaneous clause chains

Simultaneous clause chains communicate circumstances cooccurring with the event or state in the preceding clause. The preceding, controlling clause can be any kind of clause: realis, sequential, imperative, or even another simultaneous clause. The simultaneous marker is the suffix {-kɛ} attached to the underlying (irrealis) forms of the subject-agreement suffixes. The following table shows this in paradigms for *bɛ́ɗ-* 'want' and *wet-* 'drink':

(19)   *Simultaneous verb paradigm*

	Non-final	Final	Non-final	Final
1SG	bɛ́ɗ-íɪ-kɛ	bɛ́ɗ-íɪ-kᵉ	wet-íí-ke	wet-íí-kᵉ
2SG	bɛ́ɗ-ídɪ-ɛ	bɛ́ɗ-ídɪ-kᵉ	wet-ídi-e	wet-ídi-kᵉ
3SG	bɛ́ɗ-í-ɛ	bɛ́ɗ-í-kᵉ	wet-i-e	wet-i-kᵉ
1PL.EXC	bɛ́ɗ-ímɪ-ɛ	bɛ́ɗ-ímɪ-kᵉ	wet-ímí-e	wet-ímí-kᵉ
1PL.INC	bɛ́ɗ-ísɪnɪ-ɛ	bɛ́ɗ-ísɪnɪ-kᵉ	wet-ísíni-e	wet-ísíni-kᵉ
2PL	bɛ́ɗ-ítɪ-ɛ	bɛ́ɗ-ítɪ-kᵉ	wet-ítí-e	wet-ítí-kᵉ
3PL	bɛ́ɗ-áti-e	bɛ́ɗ-áti-kᵉ	wet-áti-e	wet-áti-kᵉ

As seen in (19), the simultaneous verb paradigm is all regular, apart from the non-final 1SG form which contains the final form of {-kɛ}. This is because the non-final form would create a dispreferred tri-vowel sequence.

Non-finite simultaneous verbs appear in both a) preposed adverbial clauses introduced by a conjunction and b) post-posed chained clauses without a conjunction. It is only the latter type that is considered a chained clause, though both types are common in discourse. In the following excerpt from the same narrative sampled above (15), both types of simultaneous clauses are present, but only the chained clauses are indicated with bold print:

(20) *Na ŋabuƙotie, zikini ntsia deikao,*

    [na = ŋáb-ʊƙɔt-ɪ-ɛ]_{ADV}   [zík-íni ntsí-á   dɛ-ɪka-ˀ]_{SEQ}

    CONJ = finish-COMP-3SG-SIML tie-SEQ he-ACC leg-PL-ABL

    When it finished, they tied him up by the legs,

    nda xikesuƙoti ntsie dakuk,

    [ńda   ʃɪk-ɛ́s-úƙɔtɪ   ntsí-é   dakú-kᵉ]_{NOMINALIZED}

    and   hang-INF-AND[OBL] he-GEN tree-DAT

    and they hung him in a tree,

    ikaa iyie kiɟee

    [iká-á   i-i-**e**   kíɟé-e]_{SIML1}

    head-ACC   be-3SG-SIML ground-DAT

    his heading (being) down,

    tuɗulik.

    [tuɗúl-í-**k**ᵉ]_{SIML2}

    upside.down-3SG-SIML

    (being) upside down.

In (20), the first chained simultaneous clause, *ikáá iie kíɟée* 'his head (being) down' is controlled by the directly preceding clause with the nominalized verb *ʃíƙésʊƙɔtʳ*. The second chained clause, *tuɗúlíkᵉ*, consists only of the verb and is controlled by the simultaneous clause directly preceding it.

On a continuum between coordination and subordination, simultaneous clauses fall closer to subordination. This is evident syntactically in that a) they exhibit the SVO constituent order of other subordinate clauses and b) any overt core arguments, regardless of the grammatical person and number of the subject, take the accusative case as in other subordinate clauses. The third line from (20) is repeated in (21) to illustrate these points. Note that the constituent order is SV, and the overt subject, *ikáá* 'head' is both preverbal and marked in the accusative case:

(21)   ...*ikaa iyie kįjee,*

 iká-á_S   i-i-**e**_V   kíǰé-e_{PERIPHERAL}

head-ACC   be-3SG-SIML ground-DAT

...(his) head (being) down,

The subordinate nature of simultaneous chained clauses is also seen discursively in that they take the sequence of events temporarily 'offline'. For example, in a narrative, they interrupt the mainline to provide contextual details like the fact that the guy's headed was hanging down, upside-down. To get back to the mainline sequence, a pre-posed simultaneous clause is often used. This occurs a few lines later in the story of (20), after the man's wife got worried and went to look for him:

(22)   *Na ƙayie, itayoo amee inenoosik.*

[na = ƙa-i-e]_{ADV}   ɪta-ɪ-ɔ   ámé-e   [inénó-ós-í-**k**^e]_{SIML}

CONJ = go-3SG-SIML   reach-3SG-SEQ   person-DAT hang-PASS-3SG-SIML

When she went, she found the guy hanging.

Lastly, chained simultaneous clauses may function in specific ways: as adverbial manner clauses (§9.6.2), as one of the complementation strategies (§9.11.2), and in bi-clausal comparative constructions (§9.13.2). These three functions are reiterated here with one example each. In (23), the simultaneous clause relates the manner in which a fire climbed up a hill:

(23)   *Toriteta naa ts'adʼ,*
       totir-et-a = náa   ts'adʼ-ᵃ
       climb-VEN-REAL = PST1   fire-NOM
       The fire climbed up

       nkie dakwitiniicikaa muɲ.
       [ŋƙ-ɪ-ɛ   dakw-itíní-iciká-a   muɲ]ₛₘₗ
       eat-COMP-3SG-SIML   tree-PL-VAR.PL-ACC   all
       consuming all the various types of trees.

In this second example, the chained simultaneous clause acts as a complement to the main verb *ɪtámáán-* 'behoove/necessitate':

(24)   *Itamaana*
       ɪtámáán-a
       necessitate-REAL
       It is necessary (that)

       bedʼetiike koneenia awee bik.
       [bɛ́dʼ-ɛ́t-íí-**kɛ**   kɔ́ní-ɛ́ní-a   awé-é   bi-kᵉ]ₛₘₗ
       want-VEN-1SG-SIML   one-PSSM-ACC   home-GEN   you.SG-DAT
       I look for another home for you.

And in this last example, the chained simultaneous clause acts as an adverbial manner clause in a bi-clausal comparative construction:

(25)   *Kwatsa ntsa iloyee ncik.*
       kwáts-á   nts-a   [ɪlɔ́-í-**ɛ́**   ɲci-kᵃ]ₛₘₗ
       small-REAL he-NOM defeat-3SG-SIML   I-ACC
       He's smaller than me.

Appendix A—Sample Texts

The following five sample texts exemplify different genres of Ik discourse: narrative, procedural, expository, animal fable, and proverbial. The texts are presented mostly clause by clause (with some exceptions) and are interlinearized in four lines with: 1) the popular orthography, 2) the linguistic orthography (morphologically analyzed), 3) analytical glosses, and 4) translation into English. The translation is a balance between idiomatic and literal. An attempt has been made to render the Ik into natural English, for the most part, with clarifying comments were necessary.

1 Lɔŋɔ́tᵃ (Enemies)

This first text is a written narrative, mostly in the third person but intertwined with a first person perspective (that of the narrator). The author is Longoli Philip from Timu. The story is about a time when Turkana warriors ambushed the author's village, threatening people's lives and stealing food and other belongings. It describes a typical scenario, one that is unfortunately still too often repeated to this day (i.e. 2014).

Kono kainie noo iyaanee Mayee Ɗiw,

kɔn-ɔ	kaɪní-ɛ́=nɔ-ɔ	i-án-é=e	máyɛ́-ɛ	ɗiw-ᵃ
one-INS	year-GEN=DEM.SG.PST3	be-IPS-REAL=DP	reedbuck-DAT	red-REAL

One year when (we were) at Red Reedbuck,

mita noo kija otae,

mɪt-a=noo	kíj-á	ɔtáí
be-REAL=PST3	land-NOM	dry.season[OBL]

it was dry season,

nda iyiima noo Baratiawak.

ńda i-í-ím-a=noo   baratí-áwa-kᵉ

and be-PLUR-1PL.EXC-REAL=PST3   fig.tree-home-DAT

and we were at Fig Tree Place.

Mita noo kiɟa odow, didia watik.

mɪt-a=noo   kíɟ-á   ódoᵘ   didi-a   wát-i-kᵉ

be-REAL=PST3   land-NOM   day[OBL]   weather-ACC   rain-3SG-SIML

It was daytime, pouring rain.

Na didia watie,

na=didi-a   wát-i-e

CONJ=weather-ACC   rain-3SG-SIML

As it was raining,

iya noo goʒowa ɟii, buɗamie tik.

i-a=noo   góʒow-a=ɟɪɪ   buɗám-í-e   tikⁱ

be-REAL=PST3   mist-NOM=also   dark-3SG-SIML   EMPH

there was also mist, totally dark.

Na saranie epa hoikoo,

na=sár-ání-ɛ́   ep-a   hó-íko-o

CONJ=still-IPS-SIML   sleep-REAL   hut-PL-ABL

When people were still sleeping in (their) huts

ɗuo ɲuu didia watee,

ɗí-ó=nuu   didi-a   wat-é=e

ones-ABL=REL.PL.PST3   weather-ACC   rain-REAL=DP

because it was raining,

enese eba arutetik.

en-ese éb-a arút-ét-i-kᵉ

see-SPS gun-NOM sound-INCH-3SG-SIML

a gun was heard going off.

Arutetona ebee,

arút-ét-on-a ébɛ-ɛ

sound-INCH-INF-NOM gun-GEN

At the sounding of the gun,

ŋatiyoo loŋota awo xaino gai,

ŋat-í-í-o lɔŋɔ́t-á aw-o ʃa-in-o ⁺gáí

run-PLUR-3SG-SEQ enemies-NOM home-INS direction-POSS.PL-INS both

the enemies ran by the home in both directions,

mitie imanon nda kurukotuo imanona ntia

mɪt-ɪ-ɛ imán-ón ń⁺da kur-úḱót-i-o imán-ón-a ńtí-a

be-3SG-SIML meet-INF[OBL] and defeat-COMP-3SG-SEQ meet-INF-NOM they-ACC

it being (an attempt) to meet, but meeting stymied them

ɗuo nuu ɲeriwia na ŋixa

ɗí-ó=nuu ɲéríwí-á=na ŋɪʃ-a

ones-ABL=REL.PL.PST3 outer.fence-ACC=REL.SG strong-REAL

because the strong outer fence

iyee ayee noo itoma

i-é=e aí-é=noo ɪtɔ́m-á

be-REAL=DP side-DAT=REL.SG.PST3 next.to-REAL

was on the side next

fataraakee xaino gai.

fátára-ake-e	ʃa-in-o	ˈgáí.
vertical.ridge-mouth-DAT	direction-POSS.PL-INS	both

to the top of the vertical ridge in both directions.

Enesa ntie toimenaa

en-és-á	ńtí-e	toimena-a
see-INF-NOM	they-GEN	COMPL-ACC

Upon their seeing that

ityoonuꞰotaa imanona ntie awoo xaino muꞋu,

itíón-uꞰot-á-á	imán-ón-a	ńtí-e	awó-ó	ʃa-in-o	muꞋ
difficult-COMP-REAL-PRF	meet-INF-NOM	they-GEN	home-ABL	dir.-POSS.PL-INS	all

their meeting around the home from all directions had become difficult,

ɗamatini awaa bubuno kontiaak.

ɗamat-ini	awá-á	bʊbʊn-ɔ	kɔ́ń-t-ɹákᵉ
pelt-SEQ	home-ACC	coals-INS	one-SING-?

they opened fire on the home straightaway.

Ɓunumoo ɟa roɓa

ɓʊn-úm-ɔ́-ɔ=ɟa	roɓ-a
split-MID-3SG-SEQ=ADV	people-NOM

So then people scattered

nuu iyata koo kwaro awae.

=nuu	i-át-a	kɔ́ɔ́	kwar-o	awá-ᵉ
=REL.PL.PST3	be-3PL-REAL	there:DAT	mountain-INS	home-GEN

who were on the far upper side of the home.

Naita noo mitee ayi

naítá=noo mɪt-ɛ́=ɛ ai

degree=REL.SG.PST3 be-REAL=DP side[OBL]

Since that was the side

loŋotaa kedia zea iyee kiɗaa,

lɔŋɔ́tá-a kédí-á ze-a i-é=e kɪ=ɗá-á

enemies-ACC amount-ACC big-REAL be-REAL=DP DIST=one-NOM

that most of the enemies were on,

duƙotini mora awo gigirok.

d-uƙót-ini mora-a aw-o gígiro-kᵉ

take-AND-SEQ fear-ACC home-INS down-DAT

they (the Ik villagers) fled downward by way of the home.

Ntsuo koto kiɗia ɟii enesatad.

ntsí-ó=koto ki=ɗí-á=ɟɪɪ en-és-át-a=dᵉ

it-COP=then DIST=ones-ACC=also see-IPFV-3PL-REAL=DP

That then is what those too were going to see.

Nda kiɗi ɟii iɗuzon kedo kon

ń⁺da ki=ɗí=ɟɪɪ iɗúzoni kéd-o kɔn-a

and DIST=ones[OBL]=also flee-INF[OBL] unit-INS one-REAL

And those ones too fled together

nda kiɗiasai roɓae,

ń⁺da ki=ɗíá=sai róɓaᵉ

with DEF=ones=other[OBL] people-GEN

with the other people,

ƙaatie muɲu fataraakak.

ƙá-áti-e   muɲu   fátára-aka-kᵉ

go-3PL-SIML all   vertical.ridge-mouth-DAT

going all to the top entrance of the vertical ridge.

Ɲapei roɓaa ɓunumee,

ɲapei   róɓa-a   ɓʊn-úm-ɛ́=ɛ

from   people-ACC split-MID-REAL=DP

From the time people dispersed,

ama na tsamu gooza imaa kanee nda dzeron,

ám-á=na   tsamʊ góóz-a   imá-á   kané-é   ńda dzɛr-ɔn

person-NOM=REL.SG just   throw-REAL child-ACC back-DAT   and tear-INF

anyone who just threw (their) baby on (their) back and tore off,

ƙaini ƙaatie mariŋikagwariik.

ƙa-ini   ƙá-áti-e   maríŋ-íka-gwarí-ík-ᵒ

go-SEQ go-3PL-SIML inner.fence-PL[OBL]-top-PL-INS

went going by way of the tops of the inner fences.

Toni wice, na mitoo ɗi dakwaa dzera,

toni   wice   na=mít-ɔ-ɔ   ɗɪ   dakú-á   dzɛr-a

even   children[OBL]   CONJ=be-3SG-SEQ   one[OBL] wood-ACC tear-REAL

Even the children, if it was one that (a piece of) wood tore,

moo weretsuƙot, naiƙotuk.

mo-o   wɛréts-úƙɔt-ˀ   na-íƙɔ́t-ʊ-kˀ

not-SEQ cry.out-AND-3SG endure-COMP-3SG-SEQ

he did to cry out but endured it.

Keesukoo ɟa roɓa budesia fataraakao.

ƙe-es-ú-kó = o = ɟa   roɓ-a   bud-ésí-a   fátára-aka-ᵒ

go-IPFV-3SG-SEQ = DP = ADV people-NOM   hide-INF-ACC vert.ridge-mouth-ABL

So then people were going to hide themselves at the entrance of the ridge.

Cemesoo didia wat.

Cɛm-és-ɔ́-ɔ   didi-a   wat-ᵒ

fight-IPFV-3SG-SEQ   weather-NOM   raining-INS

And it kept on raining.

Naiƙotoo roɓa didia

na-íƙɔ́t-ɔ-ɔ   roɓ-a   didi-a

endure-COMP-3SG-SEQ   people-NOM weather-ACC

And people endured the weather;

mitoo loŋotamena eɗa ityoon.

mɪt-ɔ-ɔ   lɔŋɔ́tá-mɛn-a   ɛɗá   ition-∅

be-3SG-SEQ   enemies-issues-NOM only   difficult-REAL

it was only the issues of the enemies that were difficult.

Iya nanoo kona eakwee

i-a   ná = noo   kɔ́n-a   e̜akwé-é

be-REAL PRF = PST3   one-NOM   man-GEN

There had been one man

moo nanoo eni roɓaa ɓunumatik,

mo-o   na = noo   en-i   róɓa-a   ɓʊn-úm-áti-kᵉ

not-SEQ PRF = PST3   see-3SG people-ACC split-MID-3PL-SIML

who had not seen people dispersing

ɗuo nanoo epee moɗoɗok.

ɗí-ó　　　na＝noo　　ep-é＝e　　　　mɔɗɔ́ɗɔ́-kᵃ

ones-ABL　　PRF＝PST3　　sleep-REAL＝DP　cocoon-ACC

because he had been sleeply soundly.

Arutona ebitinie,

arút-ón-a　　　ɛ́b-ɪtíní-ɛ

sound-INF-NOM　gun-PL-GEN

The sounding of the guns,

ntsuo tukureta ntsia nda ja ntsi ɟii dzeron,

ntsí-ó　　tukur-et-a　　　　ntsí-á　　ńda＝ja　　ntsi＝ɟɪɪ　　　　dzɛr-ɔn

it-COP　　jolt-INCH-REAL　　he-ACC　and＝then　he[OBL]＝also　tear-INF[OBL]

that's what jolted him, and then he too tore off

tubie mucea taŋaikinie awo gigirok.

túb-i-e　　　　　muce-á　　　taŋá-ík-ɪnɪ-ɛ　　　　　aw-o　　　gígiro-kᵉ

follow-3SG-SIML　path-ACC　cohort-PL-POSS.PL-GEN　home-INS　down-DAT

following the trail of his companions downwards by way of the home.

Moo fiyei toimenaa

mo-o　　fiye-i　　　　tóimena-a

not-SEQ　know-3SG　　COMPL-ACC

And he did not know that

ɓuƙeta nabee loŋota awaaƙok.

ɓuƙ-et-a　　　　ná＝bee　　lɔŋɔ́t-á　　　awá-áƙɔ-kᵋ

enter-VEN-REAL　INFR＝PST1　enemies-NOM　home-inside-DAT

the enemies had apparently entered inside the home.

Na loŋotaa saratie iɓoliɓola hoikaa,

na=lɔŋɔ́tá-a   sár-áti-e   iɓoliɓol-a   hó-íka-a

CONJ=enemies-ACC still-3PL-SIML   pillage-REAL hut-PL-ACC

While the enemies were still pillaging the huts,

loɗuruikaa nda ikamesuɠotini ɲokokoroa,

loɗúrú-íka-a   ń⁺da   ɪkám-ɛ́s-úɠɔt-ɪnɪ   ɲɔ́kɔkɔrɔ́-á

granary-PL-ACC and   catch-IPFV-COMP-SEQ chickens-ACC

granaries, and as they caught chickens,

enini amaa na kutie pir nda dubes.

en-ini   ámá-a=na   kʊt-ɪ-ɛ   pir   ń⁺da   dúb-ɛs

see-SEQ person-ACC=DEM.SG say-3SG-SIML   IDEO   and   catch-INF[OBL]

they saw this guy appearing, and they caught him.

Zikini amaa, iriresuɠotini kuruɓadik.

zík-ínɪ ámá-a   ɪrír-ɛ́s-ʊɠɔt-ɪnɪ   kúrúɓádi-kᵃ

tie-SEQ person-ACC gather-IPFV-COMP-SEQ   things-ACC

They tied the guy and kept on gathering up belongings.

Maa inomati ɟik.

má-á   ɪnɔ́m-áti=ɟɪkᵉ

not-REAL   beat-3PL=also

Neither did they beat (him).

Mitoo tsamu ɗi kutatee ntsie

mɪt-ɔ-ɔ   tsamʊ ɗi   kʊt-át-e=e   ntsí-é

be-3SG-SEQ just   ones[OBL] say-3PL-REAL=DP he-DAT

It was just a matter of them saying to him,

"Ƙaa naa roɓa ndaik?"

ƙa-a = náa   roɓ-a   ndaí-kᵉ

go-REAL = PST1   people-NOM   where-DAT

"Where did the people go?"

Raɟetuo ntsa kutoo "Nta ƙyeii."

ráɟ-ét-i-o   nts-a   kʊt-ɔ-ɔ   ŋ́t-á   ƙye-íⁱ

return-VEN-3SG-SEQ   he-NOM say-3SG-SEQ not-REAL   know-1SG

He replied and said, "I don't know."

Na konia loŋotomee kwatsa atsie,

na = kɔní-á   lɔŋɔ́t-ɔ́mɛ-ɛ   kwáts-á   ats-i-e

CONJ = one-ACC   enemies-SING-GEN   small-REAL   come-3SG-SIML

When a small one of the enemies came,

noo moo iyi, ikametanie ntsia,

= noo   mó-ó   i-i   ɪkám-ɛ́t-aní-ɛ́   ntsí-á

= REL.SG.PST3   not-SEQ be-3SG catch-VEN-IPS-SIML he-ACC

who was not there when he (the Ik) was caught,

iɗafoo ntsik,

ɪɗáf-ɔ́-ɔ   ntsí-kᵃ

slap-3SG-SEQ   he-ACC

he slapped him (the Ik),

ɗoɗuo ebo idʑesik

ɗóɗ-u-o   ɛ́b-ᵓ   ídʑ-esi-kᵉ

point-3SG-SEQ   gun-INS shoot-INF-DAT

aimed with the gun to shoot,

nda ama weretsonuƙot.

ń'da   ámá   wɛréts-ón-ʊƙɔtʳ

and   person[OBL] cry.out-INF-AND[OBL]

and the (Ik) guy cried out.

Kutuk, "Ogoe nci, abaŋ!"

kʊt-ʊ-kᵊ   ógo-e   ɲci   abáŋ-∅

say-3SG-SEQ leave-IMP.SG   I[OBL]   my.father[OBL]

He said, "Leave me, my father!"

Nesibesa kidiasayee loŋotee

nesíb-es-a   ki = ɗíá = saí-é   lɔŋɔ́té-ɛ

hear-INF-NOM   DEF = ones = other-GEN   enemies-GEN

When the other enemies heard

amaa weretsuƙotie,

ámá-a   wɛréts-úƙɔt-ɪ-ɛ

person-ACC   cry.out-AND-3SG-SIML

the guy crying out,

kutini diimee ne,

kʊt-ɪnɪ   ɗí-íme-e = ne

say-SEQ one[OBL]-child-DAT = DEM.SG.MED

they said to that little (Turkana) guy,

"Eja ceida loŋotoma ngoe!

eɟ-á   cé-íd-a   lɔŋɔ́t-ɔ́m-a   ŋgó-ᵉ

not-REAL   kill-2SG-REAL   enemies-SING-NOM   we.EXC-GEN

"Don't kill our enemy (the captured Ik man)!"

Benia naa bi.

beni-a = náa   bi

not.be-REAL = PST1   you.SG[OBL]

It wasn't you.

Ngoo naa ikametim

ŋgó-ó = naa   ɪkam-ɛt-ím-∅

we.EXC-COP = PST1   catch-VEN-1PL.EXC-REAL

It was we who caught (him),

nda ngoo aminio ceesim."

ń⸗da   ŋgó-ó   ám-íní-o   cɛ-ɛs-ím-∅

and   we.EXC-COP   person-POSS.PL-COP   kill-INT-1PL.EXC-REAL

and it is we, the ones responsible for him, who will kill (him)."

Nesibesa amee loŋotee ni todetatie,

nesíb-es-a   ámé-e   lɔŋɔté-e = ni   tód-et-áti-e

hear-INF-NOM   person-GEN   enemies-GEN = DEM.PL   speak-INCH-3PL-SIML

When the guy heard these enemies talking (this way),

toɗɩyoo gured.

toɗú-í-o   gúr-éd-ᵃ

stop-3SG-SEQ   heart-POSS.SG-NOM

his heart stopped.

Kutoo guro, "Baduƙotia kontiaak!"

kʊt-ɔ-ɔ   gúr-ó   bad-uƙot-í-a   kɔń-t-ɪákᵉ

say-3SG-SEQ   heart-INS   die-COMP-1SG-REAL   one-SING-?

He thought (lit 'said by heart'), "I'm going to die straightaway!"

Itsunetini koto kuruɓadia ni toɓetata kedie kon.

ɪtsún-ɛ́t-ɪnɪ=koto   kúrúɓádi-a=ni   toɓ-et-át-a   kédi-e   kɔn

collect-VEN-SEQ=then things-ACC=REL.PL raid-VEN-3PL-REAL unit-DAT one

Then they collected the things they plundered in one place.

Hoɗini amaa nda kutini ntsie, "Itiŋes!"

hoɗ-ini   ámá-a   ń⁺da   kʊt-ɪnɪ ntsí-é   itiŋ-és-∅

free-SEQ   person-ACC and   say-SEQ he-DAT   cook-IPFV-IMP.SG

And they freed the guy and said to him, "Cook!"

Kutini naɓo ntsie, "Ŋwees!"

kʊt-ɪnɪ naɓó   ntsí-é   ŋʊ-és-∅

say-SEQ again   he-DAT   grind-IPFV-IMP.SG

And again they said to him, "Grind!"

Na nabuƙotie ŋweesia, koŋesuk.

na=náb-ʊƙɔt-ɪ-ɛ   ŋʊ-ésí-a   kɔŋ-és-ú-kꞌ

CONJ=finish-COMP-3SG-SIML grind-INF-ACC   cook-IPFV-3SG-SEQ

When he finished grinding, he cooked (posho).

Koŋesia nabuƙotie, kutini amee,

kɔŋ-ésí-a   náb-ʊƙɔt-ɪ-ɛ   kʊt-ɪnɪ ámé-e

cook-INF-ACC   finish-COMP-3SG-SIML   say-SEQ person-DAT

The cooking finished, they said to the guy,

"Ƙae zeƙwe yeƙatakee nƙakee dii."

ƙa-e   zɛƙw-ɛ   ɪ̯ɛƙatake-e   ŋƙáƙé-e=⁺díí

go-IMP.SG   sit-IMP.SG   near-DAT   foods-GEN=ANPH.PL

"Go sit beside that food."

Garesini koto nta amina nda nkaka nti,

gar-és-íni=koto   ńt-á   ám-ín-a   ńꜜda ŋꜝáꜝá   ńtí-∅

serve-IPFV-SEQ=then they-NOM   person-POSS.PL-NOM and food[OBL] they-GEN

Then they served themselves with their food,

rebini amak.

réb-ini   ámá-kᵃ

deny-SEQ   person-ACC

but denied the (Ik) guy (any food).

Na ciaakotatie, kisanini kuruɓadiicikaa nti.

na=cɪ-áá-ꝁot-áti-e   kisán-íni   kúrúɓádi-icíꝁá-a   ńtí-∅

CONJ=sated-DISTR-COMP-3PL-SIML   divide-SEQ   things-VAR.PL-ACC they-GEN

When they got full, they divided up their possessions.

Na enatie toimenaa isesuꝁotataa,

na=en-áti-e   toimena-a   is-és-úꝁot-át-a-a

CONJ=see-3PL-SIML   COMPL-ACC heavy-IPFV-3PL-REAL-PRF

When they saw that they had got overloaded,

kutini amee, "Menaicikoo bitie kiɗaa.

kʊt-ɪnɪ ámé-e   mɛná-ícíꝁó-o   biti-e   ki=ɗá-á

say-SEQ person-DAT things-VAR.PL-COP   you.PL-GEN MED=ones-NOM

they said to the (Ik) guy, "Your things are those.

Kaed, ɲapei ɗuo aea nda ɗi ts'agwa."

ꝁa-é=dᵉ   ɲapei ɗí-ó   aě-a   ńꜜda ɗi   ts'ágwa-∅

go-IMP.SG=DP from ones-ABL   ready-REAL and ones[OBL] raw-REAL

Go with them, from the ready (cooked) ones to the raw ones."

Dodini ja muceek.

ɗóɗ-íni꞊ja   muceé-kᵃ

point-SEQ꞊then   path-ACC

Then they took off.

Kutini amee, "Imaxane ja biroɓak!

kʊt-ɪnɪ ámé-e   ɪmáʃán-e꞊ja   bi-róɓá-kᵉ

say-SEQ person-DAT greet-IMP.SG꞊then you.SG-people-DAT

And they said to the guy, "Greet your people then!

Atsima naa

ats-ím-á꞊naa

come-1PL.EXC-REAL꞊PST1

We came (earlier today),

mitie iŋaalesi bitie iriametonie nkaƙee

mɪt-ɪ-ɛ   ɪŋaal-ésí   biti-e   iríám-ét-oni-e   ŋƙáƙé-e

be-3SG-SIML frighten-INF[OBL]   you.PL-GEN acquire-VEN-INF-DAT food-DAT

it being (a matter of) frightening you to get food

ɗuo rebiitee ngwaa

ɗí-ó   réb-i-it-é꞊e   ŋgó-á

ones-ABL deny-PLUR-2PL-REAL꞊DP we.EXC-ACC

because you deny us (food)

nee kutimee bitie

nɛ́ɛ́   kʊt-ím-ɛ́꞊ɛ   biti-e

CONJ say-1PL.EXC-REAL꞊DP you.PL-DAT

when we say to you

'Biroo ngo odoiciko ni atsiimad'."

bír-ɔ́ɔ	ŋgo	ódo-icík-ó = ni	ats-í-ím-a = dᵉ
assist-IMP.PL	we[OBL]	day-VAR.PL-INS = REL.PL	come-PLUR-1PL.EXCL-REAL = DP

'Assist us on the days that we usually come'."

Na koto enie toimenaa ƙaa loŋota muɲu,

na = kótó	en-i-e	toimena-a	ƙá-á	lɔŋɔ́t-á	muɲu
CONJ = then	see-3SG-SIML	COMPL-ACC	go-REAL	enemies-NOM	all

So when he (the Ik man) saw that all the enemies were going,

woyuo roɓaa fataraakao.

ó-í-o	roɓa-a	fátára-aka-ᵒ
call-3SG-SEQ	people-NOM	vertical.ridge-mouth-ABL

he called the people from the entrance of the vertical ridge.

Kutoo, "Ee, roɓa noo fataraakee,

kʊt-ɔ-ɔ	éé	roɓa	nɔ́ɔ	fátára-ake-e
say-3SG-SEQ	yes	people[OBL]	there:DAT	vertical.ridge-mouth-DAT

He said, "Hey, people at the top of the vertical ridge,

itetuo ƙaa loŋot!"

it-et-úó	ƙá-á	lɔŋɔ́t-ᵃ
return-VEN-IMP.PL	go-REAL	enemies-NOM

come back, the enemies are going!"

Atsesukoo ja roɓ.

ats-és-ú-kó = o = ja	roɓ-ᵃ
come-IPFV-3SG-SEQ = DP = ADV	people-NOM

So people started coming back from there.

Itini kuruɓadia ni biraa ntiawikao,

ít-íni	kúrúɓádi-a=ni	bɪra-a	ńtí-aw-íká-ᵒ
discover-SEQ	things-ACC=REL.PL	lack-REAL	they-home-PL-ABL

They discovered the things that were missing from their homes,

itaini ɗie iya nda ɗi biraat.

ɪta-ɪnɪ	ɗí-é	i-a	ń'da	ɗí	bɪrá-át-ᵃ
reach-SEQ	ones-DAT	be-REAL	and	ones[OBL]	lack-3PL-REAL

and found those that were there and those that were not.

Na koto fara cemanie emutiko diyo widʐoo,

na=kótó	fara	cɛm-aní-ɛ́	emút-ík-o	diyo-o	wídz-oó
CONJ=then	FUT	fight-IPS-SIML	story-PL-INS	sitting.place-ABL	evening-INS

So later when people were telling stories at the sitting place in the evening,

kutoo kona ɉakamee,

kʊt-ɔ-ɔ	kɔn-a	ɉák-áme-e
say-3SG-SEQ	one-NOM	elders-SING-GEN

one of the elders said,

"Ee roɓa, isio naa moo wicea koɗati

éé	roɓa	isi-o=náa	mo-o	wicé-á	ƙɔ́ɗ-áti
yes	people[OBL]	what-COP=PST1	not-SEQ	children-ACC	cry-3PL

"Hey people, why did the children not cry

naa moranee mariŋia dʐeretiatik?

na-a	mor-an-é=e	maríŋí-a	dzer-et-í-áti-kᵉ
CONJ-PST1	flee-IPS-REAL=DP	inner.fence-ACC	tear-INCH-PLUR-3PL-SIML

when we fled, the inner fence tearing (us) up?

Ikwa ɦyea wika ɟii badonia toimenaa gaana?"

íkwa	ɦye-a	wik-a=ɟɪɪ	bad-oni-a	tóimena-a	gaan-a
so	know-REAL	children-NOM=also	die-INF-ACC	COMPL-ACC	bad-REAL

So (does this mean) children also know that death is bad?"

Fekuo roɓa ɗeteɗetanin.

fek-i-o	roɓ-a	ɗɛtɛ́ɗɛ́t-án-ín
laugh-3SG-SEQ	people-NOM	scatter-STAT-SEQ

And people fell all over laughing.

Ita noo koto emuta

ít-á=noo=kótó	emut-a
amount-REAL=PST3=then	story-NOM

So the story

noo loŋotaa waakatee ngo ts'edee.

=noo	lɔŋɔ́tá-a	wáák-at-e=e	ŋg-o	ts'ɛ́ꜝdɛ́-ɛ́
=REL.SG.PST3	enemies-ACC	play-3PL-REAL=DP	we.EXC-INS	there-DAT

of the enemies playing with us amounted to that.

2 Rɔ́ƙɛ́s (Beekeeping)

This second text is an example of the 'procedural' genre in Ik. Its author is again Longoli Philip. The text describes various procedures involved with beekeeping. Beekeeping is an activity central to Ik culture as it provides a high-energy food as well as a source of income. In the surrounding areas, the Ik are known as expert beekeepers or wild-honey gatherers.

Mita rokesa iritsesi ts'iƙae nda nƙaƙa ɗaɗae.

mɪt-a	rɔ́ƙ-ɛ́s-a	ɪrɪts-ɛ́sí	ts'ɪƙá-ᵉ	ń⁺da ŋƙáƙá	ɗaɗa-ᵉ
be-REAL	beekeep-INF-NOM	tend-INF[OBL]	bees-GEN	and eating[OBL]	honey-GEN

Beekeeping is tending bees and eating honey.

Ɓunetana kanaχa, sotes,

ɓún-ɛ́t-an-a	kanaʃa-∅	sot-es
cut.cynlindrical.object-VEN-IPS-REAL	beehive-NOM	carve-SPS

A beehive is cut (from a hollow tree), carved,

nda beretesi makulikae.

ń⁺da	bɛr-ɛt-ɛ́sí	makúl-íka-ᵉ
and	braid-INCH-INF[OBL]	grass.hive.cover-PL-GEN

and grass beehive covers are braided.

Na itayee rokesik,

na=ɪta-ɪ-ɛ	rɔ́ƙ-ɛ́sɪ-kᵃ
CONJ=reach-3SG-SIML	beekeep-INF-ACC

When it reaches (time for) beekeeping,

kaweese koɗotik, titirik nda rikwitin.

káw-é-ese	ƙɔ́ɗɔ́t-ɪk-ᵃ	titír-ík-∅	ń⁺da	rikw-itín
cut-INCH-SPS	hooked.stick-PL-NOM	forked.stick-PL-NOM	and	pole-PL[OBL]

hooked sticks, forked sticks, and long poles are cut down for use.

Kaweese naɓo miʒiʒ,

káw-é-ese	naɓó	míʒɪʒ-∅
cut-INCH-SPS	again	vine.rope-NOM

Moreover, vine rope is cut for use,

nda ŋurutietesi kakee

ń⁺da	ŋur-ut-i-et-ésí	kaké-é
and	cut-CAUS-PLUR-INCH-INF[OBL]	leaves-GEN

and leaves are all diced up

ni sisiɓesie kanaxae.

=ni	sɪsɪɓ-ɛsí-ɛ́	kanaʃa-ᵉ
=REL.PL	rig.with.leaves-INF-DAT	beehive-GEN

that are for rigging the beehive with leaves (to lure bees).

Itseƙeese koto dakwa

ɪtsɛ́ƙɛ́-ɛsɛ=kɔ́tɔ́	dakw-a
prepare-SPS then	tree-NOM

Then the tree is prepared

na mita ntsi roƙesanee kanaxaak,

=na	mɪt-a	ntsi	rɔ́ƙ-és-an-é=e	kanaʃaa-kᵃ
=REL.SG	be-REAL	it[OBL]	beekeep-INT-IPS-REAL=DP	beehive-ACC

that is the one the beehive will be kept in,

nda ipeteesi naye epitesuƙotanee kanaxaak.

ń⁺da	ɪpété-ésí	naí-é	ep-ít-és-uƙot-an-é=e	kanaʃaa-kᵃ
and	form-INF[OBL]	there-GEN	lie-CAUS-INT-AND-IPS-REAL=DP	hive-ACC

and the place is 'platformed' where the beehive will be laid down.

Zikese kanaxa nda ineneesukoti dakuk.

zík-ɛsɛ kánaʃa-∅ ńda inéné-és-úƙoti dakú-kᵉ

tie-SPS beehive-NOM and hang-INF-AND[OBL] tree-DAT

The beehive is then tied and hung up in the tree.

Epitukwese nda zikes.

ep-ít-úƙo-ese ńˈda zík-ɛ́s

lie-CAUS-AND-SPS and tie-INF[OBL]

It's laid down and tied down.

Na nabukotik, kokese akina makuliko

na=náb-ʊƙɔt-ɪ-kᵉ kɔk-ɛsɛ ák-ɪn-a makúl-ík-o

CONJ=finish-COMP-3SG-SIML shut-SPS mouth-POSS.PL-NOM hive.cover-PL-INS

When (that's) finished, its openings are shut with grass hive covers,

nda sisiɓesi egesee koto irurubesik.

ńˈda sɪsɪɓ-ɛsɪ eg-esé=e=koto ɪrúrúbɛs-ɪkᵃ

and rig.with.leaves-INF[OBL] put-SPS=DP=then support.stick-PL-NOM

it's rigged with leaves, and then sticks are put in it to support the covers.

Kokesukota akinie,

kɔk-és-úƙɔt-a ák-ɪnɪ-ɛ

shut-INF-COMP-NOM mouth-POSS.PL-GEN

After the openings are closed up,

idoŋidoŋese dakuimo gwariedeo.

ɪɗɔŋíɗɔ́ŋ-ɛsɛ dakú-ím-o gwarí-éde-º

rap-SPS wood-DIM.SG-INS top-POSS.SG-ABL

it is rapped on its top with a little stick.

Kutoo koto rokesiama,

kʊt-ɔ-ɔ = kɔtɔ   rɔ́ɠ-ɛ́sɪ-am-a

say-3SG-SEQ = then   beekeep-INF-AGT.SG-NOM

And then the beekeepers says,

"Wowooɟ, atse Roŋotu, Lopuwaao,

wɔwɔ́ɔ́ɟ°   ats-e   roŋotu-∅   lopúwaa-°

whistle[IDEO]   come-IMP.SG   roŋotu-ABL   lopuwaa-ABL

"(*Whistling*), come from Roŋot, from Lopuwa,

Lopokoko, Moruŋoleeo, mmm..."

lopokóko-∅   morúŋoleé-°   mmm

lopokoko-ABL   moruŋolee-ABL   hum[IDEO]

from Lopokok, from Moruŋole, (*humming*)."

Nda ɟa kanaxaa ineton

ń⁺da = ɟa   kanaʃaa   in-ét-ón

and = then   beehive[OBL]   inhabit-VEN-INF[OBL]

And then the beehive is inhabited

nee itaee odeedek.

nɛ́ɛ́   ɪta-ɛ́ = ɛ   óde-ede-kᵃ

CONJ   reach-REAL = DP   day-POSS.SG-ACC

when it reaches its day.

Zeƙoo koto aragwaniko keɗe kainiko ni zeƙwad.

zɛɠ-ɔ-ɔ = kɔtɔ   arágwan-ik-o   keɗe   kaín-ík-o = ni   zɛɠw-á = dᵉ

sit-3SG-SEQ = then   month-PL-INS   or   year-PL-INS = REL   sit-REAL = DP

And then it sits for (however many) months or years that it sits.

Na ts'iƙaa efiaaƙotatie,

na = ts'ıƙá-á   ef-i-áá-ƙot-áti-e

CONJ = bees-ACC   sweet-PLUR-DISTR-COMP-3PL-SIML

When the bees (i.e. honey) get sweet,

ƙeese koto gones.

ƙe-ese = kótó   gon-és-∅

go-SPS = then   look-INF-NOM

one goes to have a look (at them).

Naa ƙaanie gonesia, tirese kuruɓaa ni:

náa   ƙa-aní-ɛ́   gon-ésí-a   tír-ese   kúrúɓá-a = ni

CONJ   go-IPS-SIML   look-INF-ACC   hold-SPS   things-NOM = DEM.PL

When one goes to look, one carries these things:

eo, ts'aɗ, miʒiʒ, nda ƙoon.

ęo-∅   ts'aɗ-∅   míʒɪʒ-∅   ńda   ƙo-on

leather.bag-NOM   fire-NOM   vine.rope-NOM   and   go-INF[OBL]

a leather bag, fire, a vine rope—and then one goes.

Naa itaanie kanaxadeak,

náa   ɪta-aní-ɛ́   kanaʃa-dɛa-k\[a]

CONJ   reach-IPS-SIML   beehive-foot-ACC

When the base of the beehive is reached,

ɦyeitiese ƙoɗotika misi maraŋaakat.

ɦye-it-i-ese   ƙóɗɔ́t-ɪk-a   mísı   maraŋ-aak-át-∅

know-CAUS-PLUR-SPS hooked.stick-PL-NOM   whether   good-DISTR-3PL-REAL

the hooked sticks are confirmed (to see) if they are in good shape.

Kaikeetona kijee, gameese ts'aɗik,

kaiká-ét-on-a   kíʝé-e   gám-é-ese   ts'aɗí-kᵉ

dark-INCH-INF-NOM   land-GEN   kindle-INCH-SPS   fire-DAT

When it has started getting dark, fire is kindled,

otsesuƙotuo gonesiama dakuk.

ots-és-úƙot-i-o   gon-ésí-am-a   dakú-kᵉ

climb-IPFV-AND-3SG-SEQ   look-INF-AGT.SG-NOM   tree-DAT

and the honey-checker climbs up into the tree.

Zikoo koto ama na iya kijee eoa

zík-ó-ɔ = kɔtɔ   ám-á = na   i-a   kíʝé-e   ẹo-a

tie-3SG-SEQ then   person-NOM = REL.SG   be-REAL   land-DAT   leather.bag-ACC

And then the man on the ground ties the leather bag

nda kaka ni sisiɓesie

ń⁺da   kaka = ni   sɪsɪɓ-ɛsí-ɛ́

and   leaves[OBL] = REL.PL   rig.with.leaves-INF-DAT

and the leaves that are for rigging the hive (to lure more bees)

nabuƙotie ɗusesik,

náb-ʊƙɔt-ɪ-ɛ   ɗus-ésí-kᵃ

finish-COMP-3SG-SIML   scoop-INF-ACC

when scooping (the honey) is over with,

iyesuo cebena keɗe ɲaparika eoakok.

i-és-í-o   cɛbɛn-a   keɗe   ɲápár-ɪk-a   ẹo-aƙɔ-kᵋ

be-IPFV-3SG-SEQ   spatula-NOM   or   flat.lid-PL-NOM   leather.bag-inside-DAT

(all the while) there is a spatula or flat lids inside the leather bag.

Na jiroo zikoo kaʒok, ineneiƙotuk.

na = jír-ɔ	zík-ɔ́-ɔ	kaʒo-kᵃ	inéné-iƙot-u-kᵒ
CONJ = after-INS	tie-3SG-SEQ	torch-ACC	hang-AND-3SG-SEQ

Later, he (the honey-checker) ties a torch and hangs it up (in the tree).

Itoona kaʒoe, ipukukod,

ɪtɔ́-ɔ́n-a	káʒo-e	ipúk-ú-kɔ́ = dᵉ
reach-INF-NOM	torch-GEN	fan-3SG-SEQ = DP

When the torch reaches (the hive), he (the checker) fans it (lit. 'on it')

nda ŋaɲesi akoo na moo ts'uwid.

ń'da	ŋáɲ-ésɪ	akó-ó = na	mó-o	ts'ʊw-í = dᵋ
and	open-INF[OBL]	mouth-ABL = REL.SG	not-SEQ	come.and.go-3SG = DP

and opens (the hive) at the opening that bees aren't coming and going from.

Ntsuo mita ntsi ɗaɗaa iyad.

ntsí-ó	mɪt-a	ntsi	ɗáɗa-a	i-á = dᵉ
it-COP	be-REAL	it[OBL]	honey-ACC	be-REAL = DP

It's the one (opening) that the honey is at.

Na mitie aka na ts'uwad,

na = mít-ɪ-ɛ	aka = na	ts'ʊw-á = dᵉ
CONJ = be-3SG-SIML	mouth[OBL] = REL.SG	come.and.go-REAL = DP

As for the opening that bees come and go from,

mita kiɗaa sed.

mɪt-a	kɪ = ɗá-á	séd
be-REAL	MED = one-NOM	field[OBL]

that one is the 'field' (where bees raise larvae).

Italiana nkaka ɗaɗee dakʊgwariao,

ɪtál-í-an-a ŋƙáƙ-á ɗaɗe-e dakú-gwaría-ᵒ

prohibit-PLUR-IPS-REAL eating-NOM honey-GEN tree-top-ABL

Eating honey from the treetop is customarily prohibited,

nee gonanee kanaxaak.

néɛ́ gon-an-é=e kanaʃaa-kᵃ

CONJ look-IPS-REAL=DP beehive-ACC

whenever a beehive is being checked.

Na nkese ɗaɗa dakʊgwarioo,

na=ŋ́ƙ-ese ɗáɗ-a dakú-gwarí-oó

CONJ=eat-SPS honey-NOM tree-top-ABL

If honey is eaten from the tree top,

imasetoo ama asik, ɲataloo Ice.

ɪmás-ɛ́t-ɔ-ɔ ám-á así-kᵃ ɲatalɔ́-ɔ́ icé-∅

throw-VEN-3SG-SEQ person-NOM self-ACC custom-ABL Ik-GEN

the person (who did it) throws himself down, according to Ik custom.

Naa koto nabʊkotie ɗʊsesik,

náa=koto náb-ʊƙɔt-ɪ-ɛ ɗus-és-í-kᵃ

CONJ=then finish-COMP-3SG-SIML scoop-INF-ACC

Then when scooping (the honey) is over with,

ineneetʊo koto eoa kiɟak.

inéné-et-i-o=koto ẹo-a kíɟá-kᵉ

hang-VEN-3SG-SEQ=then leather.bag-ACC land-DAT

he (the checker) slings the leather honey bag down to the ground.

Ikamukotoo koto ɗa kiɟoo eook,

ɪkam-úƙɔ́t-ɔ-ɔ = kɔtɔ   ɗ-a   kíɟó-o   ẹoo-kᵃ

catch-AND-3SG-SEQ = then   one-NOM   land-ABL   leather.bag-ACC

And then the one on the ground catches the leather bag

kidzimetesuo ɗusesiama kiɟak.

kídzim-et-és-í-o   ɗus-ésí-am-a   kíɟá-kᵉ

descend-VEN-IPFV-3SG-SEQ   scoop-INF-AGT.SG-NOM   land-DAT

while the scooper man descends back to the ground.

Naa koto nee kiɗiakonia itetee kiɟaa,

náa = koto   nɛ́ɛ́   kɪ = ɗíá-kɔní-á   ɪt-ɛt-ɛ́ = ɛ   kíɟá-a

CONJ = then   CONJ   DEF = one-one-ACC   reach-VEN-REAL = DP   land-ACC

Then when that one reaches the ground,

ɗusetini koto ɗia mita nkam,

ɗus-ét-ini = koto   ɗɪ-á   mɪt-a   ŋƙ-am

scoop-VEN-SEQ = then   one-ACC   be-REAL   eat-PAT[OBL]

they scoop out the eatable (honey),

nda atsoni awee nee awaa ɦyotogad.

ń'da   ats-oni   awé-é   nɛ́ɛ́   awá-á   ɦyɔtɔ́g-a = dᵉ

and   come-INF[OBL]   home-DAT   CONJ   home-ACC   near-REAL = DP

and come home if home is near.

Naa awaa yekie, epin.

náa   awá-á   ɪ̣ɛ́ƙ-ɪ-ɛ   ep-in

CONJ   home-ACC   far-3SG-SIML   sleep-SEQ

If home is far, they sleep.

3 Cɛŋ (Woodpecker)

This third text, also written by Longoli Philip, is an example of the 'expository' genre. It gives insight into the Ik practice of divination, in this case a combination of *Angang* 'seeing a bird or an animal on a journey' and *augury* 'watching the flight of birds' (Hiebert, Shaw, & Tiénou 1999:184). In this text, it is the woodpecker that reveals impending good or bad fortune to the traveler according to the direction from which its call is heard.

Mita ceŋa gwaa

mɪt-a	cɛŋ-á	gwaa
be-REAL	woodpecker-NOM	bird[OBL]

A woodpecker is a bird

na dodîya ɲaɓaatikaa roɓak.

=na	dóɗ-i-a	ɲaɓáát-íká-a	roɓa-kᵉ
=REL.SG	show-PLUR-REAL	luck-PL-ACC	people-DAT

that typically shows fortunes to people.

Iwiya nee ɓekesanee mʊceeo.

iw-í-á	nɛ́ɛ́	ɓɛk-ɛ́s-án-é=e	mʊceé-ᵒ
strike-PLUR-REAL	CONJ	walk-IPFV-IPS-REAL=DP	path-ABL

It usually calls (lit. 'strikes') when one is walking on the way.

Iya koto bacikika ts'aguse

i-a=kótó	bácík-ík-á	ts'agúsé
be-REAL=then	area-PL-NOM	four

So there are four areas

ni ceŋaa iwiyad:

=ni	cɛŋá-á	iw-í-á=dᵉ
=REL.PL	woodpecker-ACC	strike-PLUR-REAL=DP

that the woodpecker typically calls from:

Bacikika dii, ntuo ɗa:
bácík-ík-á = ꞌdíí ńtí-o ɗ-a
area-PL-NOM = ANPH.PL they-COP ones-NOM
Those areas, they are these:

wax, ɟir, nkaƙakwet, betsinakwet.
waʃ-∅ ɟɪr-∅ ŋƙáƙá-kwɛt-∅ betsíná-kwɛt-∅
ahead-NOM behind-NOM eating-hand-NOM left-hand-NOM
ahead, behind, righthand side, lefthand side.

Na koto ama keɗe roɓa ɓeƙesin,
na = kótó ám-á keɗe roɓa ɓɛƙ-ɛ́s-ín
CONJ = then person-NOM or people[OBL] walk-IPFV-SEQ
So when a person or people go walking,

iwoo ceŋa waxʊ,
iw-i-o cɛŋ-a waʃʊ-∅
strike-3SG-SEQ woodpecker-NOM ahead-ABL
and a woodpecker calls from ahead,

ntsuo toimena,
ntsí-ó toimɛn-a
it-COP COMPL-NOM
it means (lit. 'it is') that

ƙoda waxie biraa mena iy.
ƙó-d-a waʃɪ-ɛ bɪra-a mɛn-a i-ᵃ
go-2SG-REAL ahead-DAT lack-REAL issues-NOM be-REAL
you're going ahead and there are no problems.

Naa iwie ɟiru, ntsuo toimena

náa	iw-i-e	ɟírʊ	ntsí-ó	toimɛn-a
CONJ	strike-3SG-SIML	behind-ABL	it-COP	COMPL-NOM

If it calls from behind, it means that

iya kinimena waxie

i-a	kíní-mɛn-a	waʃɪ-ɛ
be-REAL	some-issues-NOM	ahead-DAT

there are some problems ahead

ni raɟetesata bia ɟirik.

=ni	raɟ-et-és-át-a	bi-a	ɟɪrɪ-kᵋ
=REL.PL	return-VEN-INT-3PL-REAL	you.SG-ACC	behind-DAT

that will return you back.

Naa moo miti nti,

náa	mo-o	mɪt-ɪ	ńtí
CONJ	not-SEQ	be-3SG	so

When it's not like that,

kwiidoo iya kinimena ni iyata ɟirie

kʊ(t)-ɪdɔ-ɔ	i-a	kíní-mɛn-a=ni	i-át-a	ɟɪrɪ-ɛ
say-2SG-SEQ	be-REAL	some-issues-NOM=REL.PL	be-3PL-REAL	behind-DAT

you (can) say there are some problems behind

ni raɟesuƙotata bik.

=ni	raɟ-és-úƙot-át-a	bi-kᵃ
=REL.PL	return-INT-AND-3PL-REAL	you.SG-ACC

that will return you back (that way).

Naa iwie nkaꞵakwetao,

náa   iw-i-e   ŋꞵáꞵá-kwɛta-°

CONJ   strike-3SG-SIML   eating-hand-ABL

When it calls from the righthand side,

kwiidoo iya kinimena

kʊ(t)-ɪdɔ-ɔ   i-a   kíní-mɛn-a

say-2SG-SEQ   be-REAL   some-issues-NOM

you (can) say there are some problems

takanetesa kwetoo dee,

takan-et-és-á   kwɛtɔ́-ɔ́ = ꞌdɛ́ɛ́

appear-VEN-INT-REAL   hand-ABL = ANPH.SG

that will appear on that side (lit. 'hand'),

keꝺe koneena koroꞵadie na enesuꞵoid,

keꝺe   kɔ́ní-ɛ́n-á   kɔ́rɔ́ꞵádi-e = na   en-és-úꞵó-íd-ᵃ

or   some-PSSM-NOM   thing-GEN = REL.SG   see-INT-AND-2SG-REAL

or some thing that you will see,

misi inoo keꝺe amak.

mísɪ   ínó-o   keꝺe   ámá-kº

whether   animal-COP   or   person-COP

whether it's an animal or a person.

nda naꞵo mita toimena

ń⁺da   naꞵó   mɪt-a   toimɛna

and   again   be-REAL   COMPL[OBL]

And furthermore it means that

imanesida nda koneeni amee waxoo

iman-és-íd-a   ń⁺da   kɔ́ní-ɛ́nɪ   ámé-e   waʃʊ-ɔ

meet-INT-2SG-REAL   with   some-PSSM[OBL]   person-GEN   ahead-ABL

you will meet with someone ahead

keɗe kinimen.

keɗe   kíní-mɛn

or   some-issues[OBL]

or some problems.

Naa iwie betsinakwetoo,

náa   iw-i-e   betsíná-kwɛtɔ-ɔ

CONJ   strike-3SG-SIML   left-hand-ABL

When it calls from the lefthand side,

kwiidoo ɲaɓaatʋo na da

kʊ(t)-ɪdɔ-ɔ   ɲaɓááti-o = ná   da-∅

say-2SG-SEQ   luck-COP = REL.SG   nice-REAL

you (can) say it's the good fortune

na nkakee keɗe menaicikee

= na   ŋƙáƙé-e   keɗe   mɛná-ícíké-e

= REL.SG   food-GEN   or   things-VAR.PL-GEN

that is of food or of things

ni maraŋaaka ni takaneta bie waxu.

= ni   maraŋ-aák-á = ni   takan-et-á   bi-e   waʃʊ-∅

= REL.PL good-DISTR-REAL = REL.PL appear-VEN-REAL   you.SG-DAT   ahead-ABL

that are good that (will) appear to you ahead.

4 Ámázea Máwᵃ (Mr. Lion)

This fourth text is one of many Ik 'animal fables'. Its author is still Longoli Philip, though this is only his version of a tale well-known by many. Most Ik animal fables involve one animal being particularly clever and deceptive. In this story, told by Tortoise, Rabbit deceives all the animals into going to visit Mr. Lion, who has fallen ill. But Mr. Lion is well enough to eat every animal that comes into his cave. Tortoise realizes this before committing the same fatal error. Only Rabbit and Tortoise survive Mr. Lion's feeding spree.

"Kainiko nuk", kutoo Kaea,

kaín-ík-o = nukᵘ   kʊt-ɔ-ɔ   kaě-a

year-PL-INS = DEM.PL.PST3   say-3SG-SEQ tortoise-NOM

"Years ago," Tortoise said,

"Mitiya noo Mawa amazeama inoe.

mit-í-á = noo   máw-á   ámá-ze-áma   ínó-ᵉ

be-PLUR-REAL = PST3   lion-NOM   person-big-person[OBL] animals-GEN

"Lion was the master of the animals.

Epiya noo pakwee mitie awa ntsi.

ep-í-a = noo   pakó-é   mɪt-ɪ-ɛ   awa   ntsí-∅

sleep-PLUR-REAL = PST3   cave-DAT   be-3SG-SIML home[OBL] he-GEN

He used to sleep in a cave as his home.

Konto odowe, inuuƙotoo neba ntsik.

kóń-t-ó   odou-e   ɪnú-úƙɔt-ɔ-ɔ   néb-a   ntsí-kᵃ

one-SING-INS day-GEN   weigh.down-COMP-3SG-SEQ   body-NOM   he-ACC

One day, he fell ill (lit. "the body weighed him down").

Kutoo Tulua,
kʊt-ɔ-ɔ   tulú-a
say-3SG-SEQ rabbit-NOM
Rabbit said,

"Inwa muɲu ƙaini enimosia nda Amazea Maw."
ínw-á   muɲu ƙa-ini én-ímósí-a   ń˦da ámá-zea-máº
animal(s)-NOM all   go-SEQ see-RECIP-ACC with person-big-lion[OBL]
"All the animals (should) go visit with Mr. Lion."

Kot, na mitoo ino
kot   na=mɪt-ɔ-ɔ   ínó
but   CONJ=be-3SG-SEQ   animal[OBL]
But, as for the animal

na ƙaa enimosia nda Amazea Maw,
=na   ƙa-a   én-ímósí-a   ń˦da   ámá-zea-máº
=REL.SG   go-REAL see-RECIP-ACC with   person-big-lion[OBL]
that goes to visit with Mr. Lion,

ats'uƙotoo kiɗia!
áts'-úƙɔt-ɔ-ɔ   kɪ=ɗí-á
eat-COMP-3SG-SEQ   DEF=one-ACC
he (Mr. Lion) eats that one all up!

Konto odowe,
kóń-t-ó   odou-e
one-SING-INS   day-GEN
One day,

ƙayuo kaɛa enimosia nda Amazea Maw.

ƙa-i-o	kaě-a	én-ímósí-a	ń⁺da	ámá-zea-má°
go-3SG-SEQ	tortoise-NOM	see-RECIP-ACC	with	person-big-lion[OBL]

Tortoise went to visit with Mr. Lion.

Na itayee pakwaasakaa,

ná=íta-ɪ-ɛ	pakó-ásáká-a
CONJ=reach-3SG-SIML	cave-door-ACC

When he reached the cave entrance,

enuo deikaa ƙaatie aƙwedee muɲ,

en-i-o	dɛ-ɪka-a	ƙá-áti-e	áƙw-ɛ́dɛ-ɛ	muɲ
see-3SG-SEQ	foot-PL-ACC	go-3PL-SIML	inside-POSS.SG-DAT	all

he saw all the footprints going inside,

bireesoo kiɗa itetata biyak.

bɪrɛ-ɛs-ɔ́-ɔ	ki=ɗ-a	it-et-át-a	biá-kᵉ
lack-IPFV-3SG-SEQ	DEF=ones-NOM	return-VEN-3PL-REAL	outside-DAT

without any of them coming back out.

Enuo toimenaa ƙaa deika muɲ aƙwedee,

en-i-o	toimɛna-a	ƙá-á	dɛ-ɪk-a	muɲ	áƙw-ɛ́dɛ-ɛ
see-3SG-SEQ	COMPL-ACC	go-REAL	foot-PL-NOM	all	inside-POSS.SG-DAT

He saw that all the footprints go inside;

biraa kiɗa atsa biyak. Isienik?

bɪra-a	kí=ɗ-a	ats-a	biá-kᵉ	isi-ɛní-kᵉ
lack-REAL	DEF=one-NOM	come-REAL	outside-DAT	what-PSSM-DAT

not a one comes back out. Why?

Tametoo toimenaa

tám-έt-ɔ-ɔ   toimɛna-a

think-INCH-3SG-SEQ   COMPL-ACC

He thought that

iya kinimena itiyoosa pakwaako,

i-a   kíní-mɛn-a   itíyá-ós-á   pakó-áƙɔ-∅

be-REAL some-issues-NOM   do-PASS-REAL   cave-inside-ABL

there are some strange things being done inside the cave,

ɗuo inoa

ɗí-ó   ínó-a

ones-ABL   animals-NOM

because the animals

ni ƙaa enimosia nda Amazea Maw,

=ni   ƙa-a   én-ímósí-a   ń⁺da   ámá-zea-máº

=REL.PL   go-REAL see-RECIP-ACC   with   person-big-lion[OBL]

that go to visit with Mr. Lion,

biraa kiɗa iteta biyak.

bɪra-a   kí=ɗ-a   it-et-á   biá-kᵉ

lack-REAL   DEF=one-NOM   return-VEN-REAL outside-DAT

not a one comes back outside.

Enuo Kaea toimenaa

en-i-o   kaĕ-a   toimɛna-a

see-3SG-SEQ tortoise-NOM   COMPL-ACC

Tortoise saw that

te ats'uƙotaa ts'oo Amazea Mawa inoa

té	áts'-úk'ɔt-á-á	ts'ɔɔ	ámá-zea-máw-á	ínó-a
EMPH	eat-COMP-REAL-PRF	now	person-big-lion-NOM	animals-ACC

of course, Mr. Lion has likely eaten up the animals

ni ƙaiya enimosia nda nts!

=ni	ƙa-í-á	én-ímósí-a	ńda	nts[i]
=REL.PL	go-PLUR-REAL	see-RECIP-ACC	with	he[OBL]

that are continuously going to visit with him!

Tametoo naɓo kutʋk,

tám-ɛ́t-ɔ-ɔ	naɓó	kʋt-ʋ-kˀ
think-INCH-3SG-SEQ	again	say-3SG-SEQ

He thought again and said,

"Nka ɟii, na ƙoyaa pakwaakwee na

ŋ́k-a=ɟɪɪ	na=ƙó-ia-a	pakó-áƙwɛ-ɛ=na
I-NOM=too	CONJ=go-1SG-SEQ	cave-inside-DAT=DEM.SG

"I too, if I go inside this cave

enimosa nda Amazea Maw,

én-ímós-á	ń⁺da	ámá-zea-má°
see-RECIP-NOM	with	person-big-lion[OBL]

to visit with Mr. Lion,

ats'esuƙotana nka ɟik,

áts'-ɛ́s-ʋƙɔt-an-a	ŋ́k-a=ɟɪk[ɛ]
eat-INT-COMP-IPS-REAL	I-NOM=too

I too will be eaten all up,

nda tezetoni ɦyekesie ɲci!

ɲ́ᵈda	téz-ɛt-ɔnı	ɦyek-esí-é	ɲci-∅
and	end-INCH-INF[OBL]	live-INF-GEN	I-GEN

and my life will end!

Ts'edoo tametoo itionik,

ts'ɛ́ᵈdɔ́-ɔ́	tám-ɛ́t-ɔ-ɔ	ití-óni-kᵉ
there-ABL	think-INCH-3SG-SEQ	return-INF-DAT

From there he thought about going back,

nda ƙooni ntsie ntsiawak.

ɲ́ᵈda	ƙo-oni	ntsí-é	ntsí-áwa-kᵉ
and	go-INF[OBL]	he-GEN	he-home-DAT

and he went to his home.

Na mitie Tulu

na=mít-ɪ-ɛ	tulú
CONJ=be-3SG-SIML	rabbit[OBL]

As for the Rabbit

noo imoɗa kiɗiasayaa inoe,

=noo	ɪmɔ́ɗ-á	ki=ɗíá-saí-á	ínó-ᵉ
=REL.SG.PST3	trick-REAL	DEF=ones-other-ACC	animals-GEN

who tricked the other animals,

moo ƙai enimosia nda Amazea Maw,

mo-o	ƙa-i	én-ímósí-a	ɲ́ᵈda	ámá-zea-máᵒ
not-SEQ	go-3SG	see-RECIP-ACC	with	person-big-lion[OBL]

he didn't go to visit with Mr. Lion

ɗuo nuu ɦyeee toimenaa

ɗí-ó=nuu	ɦye-é=e	toimɛna-a
ones-ABL=REL.PL.PST3	know-REAL=DP	COMPL-ACC

because he knew that

ats'iya Amazea Mawa kiɗiasayaa inoe.

áts'-í-a	ámá-zea-máw-á	ki=ɗíá-saí-á	ínó-ᵉ
eat-PLUR-REAL	person-big-lion-NOM	DEF=ones-other-ACC	animals-GEN

Mr. Lion was eating up the other animals.

H'yekukoo noo Tulua nda ino kiɗiasai

ɦyék-ú-kó=o=noo	tulú-a	ńˀda	ínó	ki=ɗíásai
live-3SG-SEQ=DP=PST3	rabbit-NOM	and	animals[OBL]	DEF=others[OBL]

Rabbit lived from then on, as did the other animals

nuu moo ƙaati enimosia nda Amazea Maw.

=nuu	mó-o	ƙá-áti	én-ímósí-a	ńˀda	ámá-zea-máº
=REL.PL.PST3	not-SEQ	go-3PL	see-RECIP-ACC	with	person-big-lion[OBL]

who didn't go visit with Mr. Lion.

5 Taɗápítotósí-icíkᵃ (Sayings)

The following community aphorisms were compiled by Longoli Philip at my request for 'Ik proverbs'. As such, they may exemplify the 'proverbial' genre, though they convey less timeless wisdom than prohibitive superstition.

Maa poɗeida ema okoo muɲ,

má-á	poɗ-é-íd-a	em-a	ɔkɔ́-ɔ́	muɲ
not-REAL	peel-VEN-2G-REAL	meat-NOM	bone-ABL	all

Don't peel the meat from all the bone,

itia ɲeɗekea bia paka ikaruɓoiduk.

iti-a	ɲeɗeke-a	bi-a	páka	ɪkár-úɓɔ-ɪdʊ-kˀ
???-REAL	sickness-NOM	you.SG-ACC	till	thin-COMP-2SG-SEQ

(lest) sickness will ??? you until you grow thin.

—————————————————————

Ima na xeɓa ntsikwaatetesiicoo

im-a=na	ʃɛɓ-a	ntsí-ƙwáát-ét-ésí-icó-ó
child-NOM=REL.SG	fear-REAL	s/he-bear-VEN-INF-AGT.PL-ABL

A child who fears his or her parents

iryameta ɦyekesie na ʑikib.

iryam-et-a	ɦyek-esí-é=na	ʑikíb-∅
acquire-VEN-REAL	live-INF-DAT=REL.SG	long-REAL

gains a long life.

—————————————————————

Na natoloka takanetuk,

na=nátolok-a	takán-ét-u-kᵒ
CONJ=rainbow-NOM	appear-VEN-3SG-SEQ

If a rainbow appears,

ƙwaataa ɲarama gwaak

ƙwaat-á-a   ɲar-am-a   gwaá-kᵉ

bear-REAL-PRF   girls-SING-NOM   bird-DAT

a girl has given birth out of wedlock (lit. "in the birds", i.e. in the air)

kiɟoo na takanetad.

kíɟó-o꞊na   takan-et-á꞊dᵉ

land-ABL꞊REL.SG   appear-VEN-REAL꞊DP

in the land that it (the rainbow) appears.

——————————————————

Cema cikoroikoo sedikee

cɛm-a   cíkóro-iko-o   séd-ike-é

fighting-NOM   boundary-PL-ABL   garden-PL-GEN

Fighting over the boundaries of gardens

ŋura didia sedikoo dii.

ŋʊr-a   didi-a   séd-iko-o꞊ꞌdíí

break-REAL   rain-ACC   garden-PL-ABL꞊ANPH.PL

cuts off the rain from those gardens.

——————————————————

Na soreima ceyoo poposaa,

na꞊soré-ím-a   cɛ-ɪ-ɔ   pɔpɔsa-á

CONJ꞊boy-child-NOM   kill-3SG-SEQ lizard-ACC

If a boy kills a lizard,

tsayaaƙota iditina ŋwaati.

tsa-i-áá-ƙot-a   íd-itín-á   ŋwááti-∅

dry-PLUR-DISTR-COMP-REAL   breast-PL-NOM   his.mother-GEN

his mother's breasts dry up.

——————————————————

Na ts'ika inuƙotuo loɗuruaa,

na = ts'ɪ́ƙ-a	ín-úƙot-i-o	loɗúrú-aá
CONJ = bees-NOM	colonize-AND-3SG-SEQ	granary-ACC

If bees colonize a granary,

baduƙota koneena amee awoo dee.

bad-uƙot-a	kɔ́ní-ɛ́n-á	ámé-e	awó-ó = ˈdéé
die-COMP-REAL	some-PSSM.SG-NOM	person-GEN	home-ABL = ANPH.SG

someone dies from that home.

_____

Na ceidoo amaa,

na = cɛ́-ɪdɔ-ɔ	ám-aá
CONJ = kill-2SG-SEQ	person-NOM

If you kill a person,

ɗuƙeta sea ntsie bik.

ɗuk-et-a	se-a	ntsí-é	bi-kᵃ
hinder-INCH-REAL	blood-NOM	he-GEN	you.SG-ACC

his blood hinders you.

_____

Na idema goruo bia nee maidee,

na = ídem-a	gór-í-o	bi-a	nɛ́ɛ́	ma-íd-e = é
CONJ = snake-NOM	go.over-3SG-SEQ	you.SG-ACC	CONJ	sick-2SG-REAL = DP

If a snake goes over you when you are sick,

maraŋƙoid.

maraŋ-uƙó-íd-∅
good-COMP-2SG-REAL

you get well.

_____

Na dzuesiduo daŋa,

na=dzu-es-idi-o   dáŋ-á

CONJ=steal-IPFV-2SG-SEQ   white.ants-NOM

If you steal white ants,

nta bia hakweidi hakwesio na far.

ńt-á   bi-a   hakw-é-ídi   hakw-ésí-o=na   far

not-REAL   you.SG-NOM collect.ants-VEN-2SG collect.ants-INF-ABL=REL FUT3

you do not collect (white ants) at the next collecting.

_____

Na ima na kwatsa zeƙwetoo karatsie babatie,

na=im-a=na   kwáts-á   zɛ́ƙw-ɛ́t-ɔ-ɔ   karatsi-e bábati-e

CONJ=child-NOM=REL   small-REAL   sit-VEN-3SG-SEQ   stool-DAT his.father-GEN

If a small child sits on his or her father's stool,

ipeɗa ntsia badonik.

ipéɗ-á   ntsí-á   bad-oni-k^e

jinx-REAL   he-ACC die-INF-DAT

he or she is jinxing him to die.

_____

And lastly, an Ik tongue-twister:

Zike zina zoto zuku

zík-ɛ́   zına   zɔt-ɔ   zuku

tie-IMP.SG   zebra[OBL]   chain-INS   very

Tie the zebra tightly with a chain,

zeiƙotuo ziziuƙotukwee zuku zeƙok.

ze-íƙót-i-o   zíz-uƙot-i-kó=e   zuku   zɛƙɔ́-k^e

big-COMP-3SG-SEQ   fat-COMP-3SG-SEQ=DP   very   sitting-DAT

and he will get big and get very fat for staying around.

Appendix B—Ik Root Lexicon

The following list of Ik lexical roots and their English glosses has been extracted from a larger computer (FLEx) database. The goal behind the formatting of this lexicon has been to make Ik lexical roots, mostly nouns and verbs, available for historical-comparative studies that may yield further insights about the internal and external classification of Kuliak. As such, every effort has been made to allow the lexical roots themselves to come to the fore. For nouns, this means an abstract (hyphenated) lexical form that reveals the unpredictable root-final vowel which every noun has. For verbs, this means that if the infinitive form skews the underlying root tone, the verbal root is then presented in parentheses after the headword. High tone on the lexemes is marked with an acute accent (v́), while low tone is left unmarked (see §3.2.1 for details on tone realization).

In many instances, a particular root is only attested in combination with one or more other derivational affixes. To the degree that these derivational affixes have been described, they are separated out to reveal the bare root. No doubt in the process of separating putative morphemes errors have been made, but hopefully future research can help fix the incorrect parses.

The glosses or definitions found in this lexicon have been continually worked on but still leave a lot to be desired. For example, there is still an appalling number of glosses of biological species that reveal almost no information. Most of the information on plantlife comes straight out of Heine 1999, to which I am indebted. Several new tree names have been added since then, but their English and/or scientific names are yet unknown. Another problem is when glosses reveal very little about the actual usages of a word. A definition like 'to be rough' sounds fine but lacks precision. Thus, refining and expanding the written Ik lexicon will continue to be a major need and goal for the documentation and development Ik.

Aa

ábadz-et-ésí- *v.* to cast down

abáŋi- *n.* (my) father

abɛta- *n.* sitatunga

abúba- *n.* spider

ábʊbʊɓ-ɛ́sí- *v.* to scoop water out

ábʊbʊɓ-ɔnɪ- *v.* 1) to roar

ábʊt-ɛt-ésí- *v.* to sip

aɓílíl-án-óni- *v.* to roll around

aɓúlúk-án-óni- *v.* to fall off/down

adabia- *n.* medicinal plant sp.

adɛnɛsa- *n.* bird sp.

áduɗuɓ-ɛ́sí- *v.* to pour from a
small opening

aɗáɗáa- *n.* ringworm

aɗe- *quant.* three

aɗúŋgúu- *n.* indigenous harp

aě-oni- *v.* 1) to be lit 2) to be ripe

agita- *n.* metal bead(s)

águɟ-ɛsí- *v.* to gulp liquid

aɟɪ- *n.* white-ant pestle

aká- *n.* 1) mouth 2) opening

aká-ƙúŋu- *n.* jaw

akaréří- *n.* white-ant hole trap

akatátí- *n.* gourd lid

ákát-oni- *v.* to clear the throat

akílɪka- *n.* mind, intelligence; fr.
Swa. *akili*

akínɔ́- *n.* greater kudu

akɔ́ŋɪkɔŋí- *n.* bird sp.

akúkúr-oni- *v.* to crawl, creep

akwɛ́tɛ́kwɛ́t-án-óni- *v.* to slither

áƙáf-oni- *v.* to yawn

aƙáró- *n.* palate

aƙatí- *n.* 1) nose 2) nostril

aƙólá-án-óni- *v.* to swing

aƙúƙúr-ɔnɪ- *v.* to creep; cf. *akúkúr-*
'crawl'

aƙɔ́- *n.* inside, inner part

aláláa- *n.* augur buzzard

alámáár-án-óni- *v.* to sway

aláráa- *n.* shrub sp. (*Gweria*)

álifu- *n.* thousand; from Swa. *elfu*

alóló-ésí- *v.* to handle

alólóŋ-oni- *v.* 1) to worry

ámá- *n.* person

amóza- *n.* rain termite

amʊ́tsá- *n.* debt, often of labor

amʊts-an-ésí- *v.* to owe (labor)

anásí- *n.* male kudu

anɛɛ- *n.* plant sp. (*Vigna
frutescens*)

an-ɛt-ésí- *v.* to remember

aɲaɲá- *n.* sorghum var.

aɲarasá- *n.* gravel

aɲaú- *n.* yellowish tobacco leaves

aɲɪr-ɛsí- (aɲír-) *v.* to turn, steer

apápán-ɔnɪ- *v.* to be hopeless

apéléleí- *n.* tapeworm

apétépét-án-óni- *v.* 1) to be
strewn about 2) to have a
seizure

apíír-oni- *v.* to jump

arágwaní- *n.* 1) moon 2) month

ar-oni- *v.* to cross over

arírá- *n.* flame

aríɛ́- *n.* small intestine

arúrúb-oni- *v.* to stalk

arút-óni- *v.* to make a sound

asaka- *n.* 1) door 2) clan
    3) chapter

asínít-oni- *v.* to dream

asʊnání- *n.* African pencil cedar
    (*Cupressus lusitanica*)

át(í)- *n./v.* general 'filler' word

atɔŋɔ́- *n.* spotted hyena

ats-oni- *v.* to come

áts'á- *n.* Sycamore fig

áts'-ɛ́sɪ- *v.* 1) to gnaw, eat chewy
    foods 2) to cause sharp pain

aúg-oni- *v.* to feed at night

awá- *n.* 1) homestead 2) place

auk-esí- (aúk-) *v.* to inhale food;
    cf. *aúg-*

aí- *n.* 1) side 2) place

Bb

babaa- *n.* armpit

babatí- *n.* his/her father

báboo- *n.* your father

badi- *n.* giant

bad-irɛ́tí- *n.* wizardry, witchcraft

bad-oni- *v.* 1) to die 2) to collapse
    3) to be broken

bakutsí- *n.* chest

bakúlúm-oni- *v.* to be thick (of
    thread)

bal-ɛ́sí- *v.* 1) to ignore, overlook

ban-ɛ́sí- *v.* to sharpen

baro- *n.* 1) livestock 2) wealth

baráj-óni- *v.* to recline, relax

baratí- *n.* fig tree (*Ficus
    platyphylla*)

baratsó- *n.* 1) morning 2)
    tomorrow

báritsoní- *n.* tiny ant species

barísá- *n.* male rock hyrax

bar-ɔnɪ- *v.* to be wealthy; cf. *baro-*

basaúré- *n.* lesser eland

basa- *n.* 1) ray 2) dot, spot

batán-óni- *v.* 1) to be easy 2) to
    be kind 3) to be cheap

báts-ɛ́sɪ- *v.* to scrape off outer
    layer

báts'á- *n.* pus

béber-ésí- *v.* to pull, draw out

bédíbeɗúu- *n.* 1) butterfly 2)
    paper letter; cf. *bódíboɗúu-*

be-em-óni- *v.* to crack slightly

beku- *n.* male warthog

bení-óni- *v.* 1) to not be
    something 2) to be unique

betsín-óni- *v.* to be on the left side

béúr-et-oni- *v.* to cry (of
    predators)

bezek-án-óni- *v.* to fail to cross
    paths

bɛɗ-ɛ́d-ɔnɪ- *v.* to be delicately thin

bɛ́ɗ-ɛ́sɪ- *v.* 1) to want 2) to look
    for 3) to almost do

bɛfá- *n.* puff adder

bɛf-úd-ɔnɪ- *v.* to be hefty

bɛf-úk-úm-ɔnɪ- *v.* to be hefty

bɛl-ɛ́r-ɛ́m-ɔnɪ- *v.* to be bug-eyed

bɛr-ɛ́sí- *v.* 1) to build 2) to braid 3) to spear many times

bi- *pro.* you (sg.)

bíba- *n.* dove, pigeon

bíroó- *n.* bird species

bisáká- *n.* appetite for meat

biti- *pro.* you (pl.)

bítési- *v.* 1) to spray 2) to blow bubbles

bits-ét-óni- 1) to die 2) to be worn out

biá- *n.* outside

bíz-esi- *v.* to press

bɪbɪ�͡ʃí- *n.* chicken bone

bɪɗa- *n.* gall bladder

bílíkɛrɛtɛ́ɛ- *n.* Yellow-necked spurfowl

bílɔɔrɔ́- *n.* bird species

bɪŋ-ɛ́sí- *v.* to give grudgingly

bɪɲɪ- *n.* red water worm

bɪráút-ɔnɪ- *v.* to be inadequate

bír-ɛ́sɪ- *v.* to help by giving

bɪrɔ́-ɔ́nɪ- (bɪrá-) *v.* to lack, not be

bɪt-ɛ́t-ɔ́nɪ- *v.* to multiply

bobáa- *n.* my grandfather

bobatí- *n.* his/her grandfather

bóboo- *n.* your grandfather

bóɗíboɗúu- *n.* 1) butterfly 2) paper letter; cf. *béɗíbeɗúu-*

bóg-esi- *v.* to catch by surprise

boketi- *n.* plant stem

bokiboki- *n.* outer throat

bok-ím-óni- *v.* to get stuck

bol-on-uƙotí- *v.* to stop doing sth.

bom-oni- *v.* to be thickly-rooted

bonita- *n.* 1) kind 2) matriclan

boŋóréni- *n.* clay

boreni- *n.* 1) chicken tail 2) small gourd

boroku- *n.* bushpig

bosi- *n.* ear

bós-án-oni- *v.* to be blue-gray

botá- *n.* 1) load 2) migration

bot-oni- *v.* to move, migrate

bóts-óni- *v.* to be empty, hollow

bóʃá- *n.* 1) nightjar 2) idiot

boʃoƙoréétí- *n. Cussonia arborea*

bɔɗibɔɗɔ́sí- *n.* fontanelle

bɔɔ- *n.* large intestine

bɔɗɔ́kú- *n.* 1) bark, husk 2) gun safety mechanism

bɔf-ɔ́d-ɔnɪ- *v.* to be puffy

bɔfɔƙɔré- *n.* he-goat

bɔɪbɔ́-ɔ́nɪ- *v.* to be red-brown

bɔkɔ́kɔ́- *n.* chewy honeycomb

bɔkɔ́sí- *n.* spinal column

bɔƙ-át-íní- *n.* bride

bɔlɔlɔ́- *n.* latrine

bɔn-ɛ́sí- *v.* 1) to care for, feed 2) to domesticate

bɔɲ-ɔ́d-ɔnɪ- *v.* to be brittle

bɔ́ŋ-ɔ́nɪ- *v.* to be orangish

bɔr-ɔ́ɗ-ɔ́m-ɔnɪ- *v.* to be sleepy-eyed

bɔrɔ́kɔ́kɔ́- *n.* cone of tobacco

bɔ́r-ɔ́nɪ- *v.* 1) to be tired, bored

bɔrɔ́-ɔ́nɪ- *v.* to be expansive

bɔ́rɔ́r-ɔnɪ- *v.* to cry out in fear

bɔrɔ́y-ɔ́nɪ- *v.* to be gapped

bɔs-ɛ́sí- *v.* to contribute

bɔ́t-ɛ́sɪ- *v.* to shave

bu-an-óni- *v.* to get lost, disappear

búá- *n.* cloud of dust; cf. *búré-*

bubua- *n.* 1) belly 2) underneath

bubuʃ-án-óni- *v.* to blister

bud-ɛ́sí- *v.* to hide oneself

búd-esi- *v.* to hide sth.

buɗama- *n.* darkness

buɗ-ám-óni- *v.* to be dark, black

buɗ-úd-oni- *v.* to be soft

buf-úd-oni- *v.* to be spongy

buk-oni- *v.* to lie prostrate

bukuk-ánóni- *v.* to lose sleep

bukur-esí- (bukúr-) *v.* 1) to cover up 2) to spill

buƙú- *n.* marriage (all aspects)

bul-oni- *v.* 1) to be empty, vacant

bulukétí- *n.* container for liquids

bulúƙúm-oni- *v.* to be thick

bun-oni- *v.* to join up with

búɲeni- *n.* moss

buré- *n.* dust; cf. *búá-*

bur-ád-oni- *v.* to be soft

buratsi- *n.* bat-eared fox

burukáí- *n.* Turkana-land

burukutsi- *n.* kneecap

busubusi- *n.* water lily

bút-ési- *v.* to drink like a cow

butsa- *n.* bird playground

búúbu-an-óni- *v.* to be scarce, rare

bubʊná- *n.* 1) hot ember 2) bullet

bʊláj-ám-ɔnɪ- *v.* to be weak

bʊlʊbʊlátí- *n. Drimia Altissima* pl.

bʊr-ɔnɪ- *v.* 1) to jump 2) to fly

Ɓɓ

ɓaaɓ-án-óni- *v.* to be cracked

ɓaɓar-án-óni- *v.* to sit waiting

ɓaɟɪ- *n. Boscia angustifolia* tree

ɓakɪɓák-ɔ́nɪ- *v.* to be bitter

ɓaláɲí- *n.* toothbrush tree (*Salvadora persica*)

ɓal-íd-ɔnɪ- *v.* to glisten

ɓaŋ-ɔnɪ- *v.* to be loose

ɓárik-ík-óni- *v.* to be piquant

ɓarɪɓár-ɔ́nɪ- *v.* to be medium-sized

ɓar-oni- *v.* to be sour

ɓáts-ɛ́sɪ- *v.* to stir to cool

ɓatsil-ár-óni- *v.* to have an unpleasant taste

ɓek-án-óni- *v.* to be immoral

ɓel-ém-óni- *v.* 1) to crack 2) daybreak

ɓets'-oni- *v.* 1) to be white, clear 2) to be clean

ɓéɓél-ɛ́sí- *v.* to divide

ɓɛɪɓɛ́-ɔ́nɪ- *v.* to have a burning sensation

ɓɛk-ɛ́t-ɔ́nɪ- *v.* to hatch

ɓɛkɪɓɛ́k-ɔ́nɪ- *v.* to rustle

ɓɛɠ-ɛ́sí- *v.* to walk

ɓɛɠ-ɛt-ɛ́sí- *v.* to accost

ɓɛl-ɛ́sí- *v.* to crack

ɓɛt-ɛ́l-ɛ́m-ɔnɪ- *v.* to be shallow and
    wide

ɓɛts'-ɪd-ɔ́ɗ-ɔ́nɪ- *v.* to be whitish

ɓiɓa- *n.* egg

ɓil-ɛ́sí- *v.* to cut out

ɓil-ím-óni- *v.* to get punctured

ɓir-íd-oni- *v.* to be soggy

ɓir-ím-óni- *v.* to break

ɓíɓít-ɛ́sí- *v.* to drink by sucking

ɓɪlíɓíl-ɛ́sí- *v.* to break into pieces

ɓɪsá- *n.* spear

ɓoó- *n.* escarpement

ɓoɓ-oni- *v.* to be deep

ɓóɓósa- *n.* perfume made from
    the *Terminalia brownii* tree

ɓoko-án-et-oni- *v.* to be purple

ɓoliɓoli- *n.* 1) goiter 2) waddle 3)
    hood of a vehicle

ɓóliso- *n. Croton dichogamus* plant

ɓolóo- *n.* small red gourd

ɓolokotsi- *n.* small oblong gourd

ɓol-óm-óni- *v.* to break off

ɓolóɲ-óm-oni- *v.* to be
    circumcized

ɓoɲi- *n.* edible plant species
    (*Balanites pedicellaris*)

ɓóré- *n.* livestock corral (kraal)

ɓotoŋu- *n.* 1) pounded white ants
    2) bunch of bananas

ɓotsátí- *n.* chisel, drill

ɓots-et-ɛ́sí- *v.* to pluck out

ɓókɔɲɪ- *n.* slope, bank

ɓólé- *n.* shin

ɓóŋ-ɔ́nɪ- *v.* to be nearly ripe

ɓórít-ɔnɪ- *v.* to have pus

ɓɔrɔ́t-ɔ́m-ɔnɪ- *v.* to be thick, of
    blood

ɓɔrɔ́ts-ɔ́m-ɔnɪ- *v.* to be wet

ɓɔtíı- *n.* dry leftover maize mush

ɓuɠ-ɛ́sí- *v.* to lift up

ɓúɠ-óni- *v.* 1) to enter 2) to
    commit adultery

ɓulúr-úm-oni- *v.* to scar over

ɓúrukúk-óni- *v.* to sprout

ɓutúr-úm-oni- *v.* to short and
    thick

ɓu-um-óni- *v.* to get dislocated

ɓʊkúláa- *n.* Gerrard's acacia
    (*Acacia gerrardii*)

ɓʊl-ɛsí- *v.* to rush out

ɓʊn-ɛsí- *v.* to cut a tubular object

ɓʊn-ɔnɪ- *v.* to pass by

ɓʊn-ʊ́m-ɔ́nɪ- *v.* to scatter

Cc

caalí- *n.* cooking stone

ceímá- *n.* oil

cédicedíi- *n.* game of hopskotch

cekí- *n.* woman, wife

céŋá- *n.* joke

cɛɓɛní- *n.* wooden spatula

céb-ɛsɪ- *v.* to shape stone

cɛ-ɛsí- *v.* 1) to kill 2) to injure

cɛmɛrɪ- *n.* herb

cɛm-ɔnɪ- *v.* to fight

cɛŋá- *n.* woodpecker

cici-an-óni- *v.* to repent

cicidea- *n.* bird species

cíkóroí- *n.* boundary

cikó- *n.* male

cɪkámá- *n.* women, wives

cɪ-ɔnɪ- *v.* to be satiated

cook-ésí- *v.* to shepherd

coorí- *n.* bangle

cu-an-óni- *v.* to be liquid

cucué- *n.* moist chill

cucu-an-óni- *v.* to feel compassion

cué- *n.* 1) water 2) girl

cúkúɗumu- *n.* male mountain
reedbuck

cúrúku- *n.* 1) bull 2) male

Dd

dabiɟa- *n.* bird species

dab-úd-oni- *v.* to be mushy

dadáŋi- *n.* my grandmother

dadati- *n.* his/her grandmother

dádoo- *n.* your grandmother

dakú- *n.* 1) tree, plant 2) wood

dalisa- *n. Dolichos oliveri* plant

dáŋá- *n.* white ants (termite sp.)

deké- *n.* leather hind-apron

deƙu- *n.* quarreling

demio- *n.* Wild olive (*Olea
europaea africana*)

d-et-ésí- *v.* to bring

dew-oni- *v.* to be strong

dɛá- *n.* 1) foot, leg 2) footprint 3)
wheel

dɛdɛsa- *n.* willow warbler

dég-ɛm-ɔnɪ- *v.* to bend down

dɛɟ-éd-ɔnɪ- *v.* to be squat

dɛŋel-ɛsí- (dɛŋél-) *v.* to raise the
leg to kick

dɛr-éd-ɔnɪ- *v.* to be anemic, feeble

dɛréƙɪ- *n.* 1) wasp 2) desert rose
(*Adenium obesum*)

didii- *n.* 1) weather 2) rain

didisá- *n.* female pudendum

dikwá- *n.* dance, song

dililits'á- *n.* biting gnat species

dim-ésí- *v.* to refuse, reject

diridír-óni- *v.* to be sugary sweet

dir-íd-oni- *v.* to be hard when full

diriɟiɟí- *n.* gums (in the mouth)

diyo- *n.* sitting place, courtyard

díƙw-ɛ́sɪ- *v.* to rest the head on a
stool as a pillow

dodíkí- *n.* plant sp. (*Canthium*)

dódoku- *n.* malnutrition,
kwashiakoor

dód-oni- *v.* to hurt, ache

doɗi- *n.* vagina

dokira- *n.* old honeycomb

dol-ésí- *v.* 1) to blossom 2) to pull
back the foreskin

dololots'í- *n.* soaked sorghum

dómá- *n.* pot

dón-ési- *v.* to donate

do-oni- (da-) *v.* 1) to be nice 2) to be beautiful

dos-ésí- *v.* to thatch

doʃ-ésí- *v.* to attempt

dɔdɪmɔ́r-ɔ́nɪ- *v.* to look timidly

dɔ́dɔr-ɔnɪ- *v.* to scoot on buttocks

doƙof-i-esí- *v.* to express hatred

dɔ́ba- *n.* mud

dɔʃa- *n.* eye drainage

dɔʃ-ɛ́s-úƙɔtí- *v.* to berate

duƙ-és-uƙotí- *v.* to take

duláts'-ám-oni- *v.* to be juicy-fat

dúlúƙuƙúu- *n.* small round gourd

dul-úm-óni- *v.* to have sudden diarrhea

dún-ési- *v.* to be old

dununú-oni- *v.* to be tiny

duŋúl-úm-oni- *v.* to be blunt

dúsé- *n.* plains below escarpment

duʃ-úd-oni- *v.* to be mushy

dʊb-ɛ́sí- *v.* to mix with water

dúb-ɛsɪ- *v.* to catch with hands

dʊɗérɛ- *n.* water beetle

dóg-ʊm-ɔnɪ- *v.* to be paralyzed

dʊm-ɛ́ɗ-ɛ́m-ɔnɪ- *v.* to be talkative

dʊmʊ́ná- *n.* dung beetle

dʊrʊdʊrá- *n.* 1) black boring insect 2) radio 3) phone

dzabula- *n.* female lesser eland

dzál-óni- *v.* to cry for no reason

dzara- *n.* red-billed oxpecker

dzɛr-ɛ́sí- *v.* to tear

dzibérí- *n.* axe

dzígwa- *n.* commerce

dziŋá- *n.* base of slope

dzóga- *n. Pappea capensis* tree

dzoni- *n.* well, source

dzɔɗ-ɛ́t-ɔ́nɪ- *v.* to be greedy

dzolug-án-óni- *v.* to leave angrily

dzuú- *n.* theft, thievery

dzúƙudzuƙ-i-esí- *v.* to keep promising but postponing

Ɗɗ

ɗaɗa- *n.* honey

ɗáɗít-ésí- *v.* to eat or drink indiscriminantly

ɗáƙ-óni- *v.* to talk thickly

ɗálút-ésí- *v.* to hit, strike

ɗamʊ́- *n.* brain

ɗamat-ésí- *v.* to pelt

ɗamɪɗám-ɔ́nɪ- *v.* to dance happily

ɗamʊsʊ *adv.* 1) fast 2) *conj.* unless 3) before

ɗapál-ám-ɔnɪ- *v.* to be flat-sided

ɗaráɗár-án-óni- *v.* to shed

ɗarám-ɔ́nɪ- *v.* to scratch bloody

ɗas-oni- *v.* to be flat (e.g. an area)

ɗatáɗát-án-óni- *v.* to be rotten

ɗatáɲ-ám-oni- *v.* to be flat-sided

ɗatóló́ɲ-oni- *v.* to purge

ɗaʊ- *n.* 1) knife 2) propeller blade

ɗerétú- *n.* Sudam gum arabic/Three-thorned acacia (*Acacia senegal*)

ɗéró- *n.* rat, mouse

ɗesɛ́ɗɛ́s-án-óni- *v.* to be cracked
in pieces

ɗewení- *n. Berchemia discolor* tree

ɗeɗe-an-óni- *v.* 1) to rush, gush 2)
to flare 3) to pitter-patter

ɗɛ́fɛ́- *n.* small animal skin

ɗɛ́gɛ- *n.* Tamarind tree seeds

ɗɛka- *n.* butter churn

ɗɛƙw-ɔnɪ- *v.* to be tasteless

ɗɛl-ɛ́m-ɔ́nɪ- *v.* to continue

ɗɛl-ɔnɪ- *n.* to latch onto with teeth

ɗɛm-ɛ́d-ɔnɪ- *v.* to be talkative

ɗɛɲɪɗɛɲ-ɔsí- *v.* to lie around

ɗɛp-ɛ́d-ɔnɪ- *v.* to be thin and flat

ɗɛrɛtsa- *n.* pieces of kindling

ɗɛs-ɛ́m-ɔ́nɪ- *v.* to be cut off

ɗetɛ́ɗɛ́t-án-óni- *v.* 1) to be
scattered 2) to laugh
hysterically

ɗɛ́t-ɛ́sɪ- *v.* to blow a blowgun

ɗɛtsɪɗɛ́ts-ɔ́nɪ- *v.* to stink badly

ɗɛʊɗɛ́w-ɔ́nɪ- *v.* to be hollow

ɗi- *pro.* ones

ɗiaaká- *n.* infant, baby

ɗiɗe- *n.* 1) donkey 2) vehicle

ɗiití- *n.* bird species

ɗip-ím-óni- *v.* to sediment

ɗíró- *n.* semen, sperm

ɗiriɓó-óni- (ɗiriɓá-) *v.* to be too
heavy to move

ɗísá- *n.* underworld, hell

ɗít-ési- *n.* to transplant seedlings

ɗiw-oni- *v.* 1) to be red 2) to be
well-worn (of footpaths)

ɗɪ- *pro.* one

ɗíɗít-ɛt-ɛ́sí- *v.* to pick-pocket

ɗíɗít-ɔnɪ- *v.* to take final breaths

ɗɪn-ɔ́sí- *v.* 1) to be stopped up 2)
to be stone-deaf

ɗípɔɔ- *n.* 1) animal bed 2) open
air market

ɗít-ɔ́nɪ- *v.* to be higher

ɗóɗ-ési- *v.* 1) to point 2) to show

ɗóɗoo- *n.* sheep

ɗoɗóba- *n.* baby sling

ɗókótsi- *n.* sorghum variety

ɗoli- *n.* abandoned beehive

ɗooɲ-óm-oni- *v.* to have a bad eye

ɗoriɗór-óni- *v.* to be first-fruits

ɗoróge- *n.* roan antelope

ɗosi- *n.* 1) tree gum 2) candle

ɗotíɗót-oni- *v.* to be strewn about

ɗow-oni- *v.* to be unspoiled

ɗoʃ-ód-oni- *v.* to be healthy

ɗɔʃɔƙɔ- *n.* gourd pulp

ɗɔan(í)- *n./v.* weeding

ɗɔ́fá- *n.* shrew

ɗɔ́gɪɗɔ́gɔ- *n.* yellow sugar ant

ɗɔk-ɔ́d-ɔnɪ- *v.* to be yummy

ɗɔkɔ́l-ɔ́m-ɔnɪ- *v.* to stammer

ɗɔƙ-ɔnɪ- *v.* to be wet

ɗɔlɛ- *n.* 1) small pumpkin 2) ulcer

ɗɔm-ɔ́d-ɔnɪ- *v.* to be gooey

ɗɔr-ɔ́d-ɔnɪ- *v.* to be slippery

ɗɔsɔ́ɔ- *n. Vigna* plant species

ɗɔs-ɔ́d-ɔnɪ- *v.* to be gummy

ɗɔtɔ́ɔ- *n.* rubber

ɗɔts-ɛ́sí- *v.* to add, combine

ɗɔ́ʃɛatí- *n.* star

ɗɔʃ-ɔ́d-ɔnɪ- *v.* to be wobbly,
    unstable when walking

ɗu-esí- *v.* to uproot

ɗukesí- *n.* 1) pollen 2) egg yolk 3)
    anything yellow

ɗuk-ésí- *v.* to walk stiffly

ɗuk-úd-oni- *v.* to be round

ɗuk-úm-óni- *v.* 1) to give off
    smoke, steam 2) to
    disintegrate from overcooking

ɗukúk-óni- *v.* to be secretly sick

ɗúlút-ésí- *v.* to flatulate loudly

ɗúrá- *n.* fetus

ɗus-ésí- *v.* to scoop out

ɗus-úm-óni- *v.* to snap apart

ɗuta- *n.* big gourd for water

ɗut-úd-oni- *v.* to be utterly rotten

ɗʊkáí- *n.* honey-beer mash

ɗʊm-ɛ́sí- *v.* to pick up

ɗʊm-úd-ɔnɪ- *v.* to be well-cooked

ɗʊ́r-ɛ́sɪ- *v.* to pull out

Ee

ẹakwá- *n.* man, husband

ẹaŋan-esí- *v.* to be happy, joyful

ẹasí- *n.* truth

ébet-i-esí- *v.* to insult, mock

éɓút-oni- *v.* to roar

ec-oni- *v.* to move out of the way

édi- *n.* name

éd-esi- *v.* to carry on the back

edî- *n.* grain(s)

eg-ésí- *v.* to put

eí- *n.* chyme

é-it-et-ésí- *v.* to fill up

ekú- *n.* 1) eye 2) seed 3) headlight

emin-ésí- *v.* to pull

em-oni- *v.* to swell

émúr-oni- *v.* to suffer from pain

emusia- *n. Euclea schimperi* plant

emutí- *n.* 1) story 2) news

en-ésí- *v.* 1) to see 2) to
    understand

eŋúnú- *n.* lastborn

ẹoo- *n.* leather bag

ẹód-oni- *v.* to be full

ep-oni- *v.* 1) to lie down 2) to
    sleep 3) to have sex

erég-esí- *v.* 1) to use 2) to send

érít-oni- *v.* to fill white-ant
    trapping holes

eruméní- *n.* spear shaft

erúná- *n.* nocturnal termite

erut-án-óni- *v.* to low (of cows)

erúts-óni- *v.* to be new, fresh

erúʃ-óni- *v.* to have loose stool

eset-ésí- *v.* to ask

ets'í- *n.* feces

eúze- *n.* male cape buffalo

ewédi- *n.* small, bitter, white wild
    potato sp. (*Dioscorea*)

Ɛɛ

ɛ́ání- *n.* a woman's sister-in-law

ɛ́ba- *n.* 1) animal horn 2) gun

ɛɗá *adv.* only

ɛf-ɔnɪ- *v.* 1) to be tasty 2) to be fun 3) to be funny

ɛkɛú- *n.* muscle fiber

ɛkw-ɔnɪ- *v.* to be ahead

ɛ́mít-ɔnɪ- *v.* 1) to wheeze 2) to groan in pain

ɛ́n-ɛ́s-ʊƙɔtí- *v.* to take by force

ɛɔm-ɔ́d-ɔnɪ- *v.* to be weak

ɛ́sá- *n.* drunkenness

ɛsá- *n.* termite(s)

Ff

fádo- *n.* scale

fád-ikó- *n.* pangolin

faɗ-et-ésí- *v.* to remove a thorn

faɗ-ét-óni- *v.* to feel well-being

faɗ-oni- *v.* 1) to be bitter 2) to prophesy

faido- *n.* ebony tree species

fak-ád-oni- *v.* to be broad

fal-oni- *v.* to go without food

fátára- *n.* vertical ridge

fáts-ɔ́nɪ- *v.* to lie face-up

fé-ési- (fá-) *v.* to boil

féí- *n.* bath

fek-oni- *v.* to laugh

fení- *n.* 1) digging stick 2) horn hoe

feni- *n.* breaking wind

fé-óni- *v.* to bathe

fetí- *n.* 1) sun 2) thirst 3) clock

fetifeti- *n.* nape of neck

fɛn-ɛ́d-ɔnɪ- *v.* to be gorged

fɛtél-ɛ́m-ɔnɪ- *v.* to be shallow

fif-oni- *v.* to pester, annoy

fiifí-óni- *v.* to be a cool breeze

firifír-án-óni- *v.* to come and go as a vagabond

fir-ím-óni- *v.* to be so full it hurts

fírits'ári- *n.* bird species

fíríts'-ésí- *v.* to trample

fír-óni- *v.* to be thick like a full sack of grain

fít-ési- *v.* to wash, clean

fit-íd-oni- *v.* to be dull

fófóta- *n.* path

fój-óni- *v.* to whistle

folól-óm-oni- *v.* to be unobstructed

fol-oni- *v.* to shed

fotól-óni- *v.* to be a clear pathway

fotsa- *n.* gorge, steep valley

fɔ́ɗɛ́- *n.* 1) loincloth 2) mudflap

fɔfɔ́ɗ-ɔ́nɪ- *v.* 1) to be flakey

fɔk-ɔ́d-ɔnɪ- *v.* to be lightweight

fɔ́t-ɛ́sɪ- *v.* to winnow

fɔts'-ɔ́d-ɔnɪ- *v.* to be barren (land)

fuɟúl-úm-oni- *v.* to be sloped

fúluƙurúu- *n.* turaco

fur-ésí- *v.* to scavenge

fút-ési- *v.* to blow

futs'áts'-ésí- *v.* to put down carelessly

fúts'-i-esí- *v.* to resuscitate

fúút-oni- *v.* to breathe

Gg

gaan-óni- *v.* 1) to be bad 2) to be dangerous 3) to be angry

gaɗárá- *n.* slime

gaɗ-ésí- *v.* to not be enough

gaɗ-ɔnɪ- *v.* 1) to vandalize 2) to be commit domestic violence

gafar-i-esí- *v.* to scoop up and eat with fingers

gafigafi- *n.* 1) lung 2) radiator

gaga-an-óni- *v.* to laugh while talking

gáí *quant.* both

gaɟ-ád-oni- *v.* to talk thickly

gak-ím-óni- *v.* to be invalid

gáƙ-óni- *v.* to leave before dawn

gaƙúr-úm-oni- *v.* to be bad-tempered

gam-ésí- *v.* to kindle a fire

garaɟɪ- *n. Sterculia stenocarpa* pl.

gár-ési- *v.* to serve food

gasara- *n.* cape buffalo

gasoó- *n.* warthog

gats-ád-oni- *v.* to be rocky

gaús-úm-oni- *v.* to be shaggy

gáʒadɪ- *n.* red-pod terminalia (*Terminalia brownii*)

gég-esi- *v.* to guzzle

gɛbɛɟí- *n. Boscia coriacea* plant

gɛfá- *n.* 1) blemish 2) ascites

gɛfɛr-ɛsí- (gɛfér-) *v.* to stab

gida- *n.* cloud

giga- *n.* elephant trunk

gígiro- *n.* down

giɟita- *n.* razor

gir-ésí- *v.* to keep

girúu- *n.* locust, cricket

gíɟ-ésɪ- *v.* to shave hair

gɪzáɪ- *n.* concave surface of grinding stone

gob-ét-óni- *v.* to look like rain

godií- *n. Diospyros scabra* tree

góg-esi- *v.* to pierce, perforate

gogoroɟi- *n.* 1) spine 2) midrib

gógor-om-oni- *v.* 1) to be spinal 2) to be ridge-like

gok-oni- *v.* 1) to be awake, alert 2) to have sexual relations with a sleeping partner

góƙ-óni- *v.* to be seated

gomóíá- *n. Maerua pseudopetalosa* plant

gomoɟoɟi- *n. Cyperus distans* plant

gone *prep.* until, up to

gon-ésí- *v.* to look, check on

gon-és-ét-oni- *v.* to wake up

góóz-ésí- *v.* 1) to throw 2) to neglect 3) to vote

gór-ési- *v.* 1) to go over 2) to pass an examination

góʒou- *n.* mist, fog

gɔɓ-ɔ́d-ɔnɪ- *v.* to be impenetrable

gɔɗɛ́ɛ- *n.* bee larva

gɔgɔmɔ́- *n.* breastbone

gɔgɔr-ɔnɪ- *v.* to be very old

gɔka- *n.* larynx, voicebox

gɔk-ɔ́d-ɔnɪ- *v.* to be stiff, unsupple

gɔ́lɔ́gɔl-án-ɔ́nɪ- *v.* to wind around

gɔmɔrú- *n.* Nubian acacia (*Acacia nubica*)

gɔné- *n.* 1) stump 2) splinter

gɔrɪgɔrɪ- *n.* 1) hoof 2) bare foot

gubesí- *n.* thigh

gub-ésí- *v.* to cover

gúɗús-amá- *n.* burnt piece of wood

gufá- *n.* foam, froth

guɟe- *n. Commelina* plant sp.

gúró- *n.* 1) heart 2) abdomen 3) soul, spirit 3) engine 4) battery

gúr-án-oni- *v.* to be quick-tempered

guɓérá- *n.* leopard

gʊra- *n.* Sickle bush (*Dichrostachys cinerea*)

gʊts'ʊr-ɛsí- (gʊts'ʊ́r-) *v.* to chase angrily

gwaá- *n.* bird

gwaa- *n.* stomach

gwaít-óni- *v.* to leave angrily

gwaíts'í- *n.* 1) giraffe 2) camel

gwaɟɪ- *n.* belly

gwalátí- *n.* lip plug

gwám-óni- *v.* to stand

gwaní- *n.* 1) lesser galago (bushbaby) 2) trousers

gwar-ésí- *v.* to throw downward

gwaría- *n.* top

gwarie- *n.* top

gwasá- *n.* 1) stone, rock 2) grinding mill 3) nugget 4) battery 5) medal

gwegwer-it-i-esí- *v.* to scribble

gwel-oni- *v.* to forget

gwéts'-óni- *v.* to be sweet

gwɛréɟ-éɟ-ɔnɪ- *v.* 1) to be dishevelled 2) to be gaunt

gwié- *n.* grove, stand of trees

gwid-íd-oni- *v.* to be limber

gwɪr-ɔnɪ- *v.* to jump up and down

Hh

haak-on-uɓotí- *v.* 1) to lose one's way 2) to fail 3) to be sorry

habu- *v.* beehive in a tree

háb-oni- *v.* 1) to be hot 2) to be stingy

hádaad-án-óni- *v.* to be a poor shot

hádol-om-oni- *v.* to not match, fit

haɟ-ád-oni- *v.* to be loosely tied

hakaik-ésí- *v.* to forget

hákát-oni- *v.* to be boastful

hakw-ésí- *v.* to gather wild game, esp. white ants

hamʊɟ-ésí- *v.* to grind finely

háré- *n.* diarrhea

harít-ɔ́nɪ- *v.* to have diarrhea

haúu- *v.* hyena

ha-ʊ́d-ɔnɪ- *v.* to be cooked tough

heɓúl-úm-oni- *v.* to be pot-bellied

hir-oni- *v.* to see quickly

hɪ́ĵɔ *adv.* 1) slowly 2) carefully

híƙɔ́ɔ- *n.* chameleon

hɪwƙʊ́nɔ́- *n.* bedroom

hoo- *n.* house, hut

hoɗ-ésí- *v.* 1) to free 2) to take off
   (clothing) 3) to divorce

hoɗ-óm-óni- *v.* to come free, loose

ho-esí- *v.* 1) to cut 2) to butcher,
   dress an animal

hɔn-ɛ́sí- *v.* to drive

hɔ́n-ɛ́sɪ- *v.* to chase animals

hɔ́tɔɔ- *n.* bustard, heron

húbut-ésí- *v.* to step deep into

hʊɾémʊ́- *n.* leaves eaten raw

H'fi

fiye-esí- (*íʄe-) *v.* to know

fiɛga- *n.* bone marrow

fiyɔɔ- *n.* cow, cattle

fiyɔtɔ́g-ɔnɪ- *v.* to be near, close

fiyɛ́ɗ-ɔ́n-ʊƙɔtí- *v.* to step aside

fiyek-esí- *v.* to live, be alive

fiyɛna- *n.* vomit

fiyɛt-ɔnɪ- *v.* to be fierce

fiyʊƙʊmʊ́- *n.* neck

Ii

i̧álólóŋ-óni- *v.* to be worried

íban-oni- *v.* to leave in late
   afternoon or evening

ibétí- *n. Commiphora africana* tree

iboboí- *n.* bird species

íbob-ot-osí- *v.* to be tied together

íboɗol-ésí- *v.* to put aright

íbof-oni- *v.* to make an alarm call
   (of antelopes)

íbok-ésí- *v.* to keep for
   tomorrow's collection

ibotá- *n.* 1) pumpkin sp. 2) dried
   pumpkin or cucumber peel 3)
   wrist-knife

íbot-oni- *v.* to jump

íbuɗ-ésí- *v.* to trample

íbunuts-ésí- *v.* 1) to sprain 2) to
   set a bone fracture

íburubur-oni- *v.* to sprinkle flour

íbuts-ésí- *v.* 1) to beat out 2) to
   collect firewood after a fire 3)
   to look for sth. lost

iɓélé-ésí- *v.* 1) to change 2) to
   turn (over) 3) to roll a hen
   over a sick person

iɓérá-án-óni- *v.* to be energetic

iɓílér-oni- *v.* to be forgetful

iɓóɓól-ésí- *v.* to strip off bark,
   skin

iɓóɓór-ósí- *v.* to be hollow

iɓok-esí- (iɓók-) *v.* to dangle

iɓol-et-ésí- *v.* to promise

iɓolíɓól-i-esí- *v.* to rummage

iɓólóŋ-ésí- *v.* to circumcise

iɓoníɓón-i-esí- *v.* to touch
affectionately

iɓóŋ-óni- *v.* to repeat, redo

iɓóót-án-ósí- *v.* to be unfriendly

iɓúɓú-esí- *v.* to clear land early

iɓúlí-án-óni- *v.* to have nothing

iɓúŋé-ésí- (iɓúŋá-) *v.* 1) to punish
severely 2) to torture

iɓur-esí- (iɓúr-) *v.* to replant

iɓut-esí- (iɓút-) *v.* 1) to give aid 2)
to pay dowry

iɓuts-úm-ét-oni- *v.* to be mistaken

iɓutúɓút-ésí- *v.* to dump

iɓutúɓút-oni- *v.* to be thick like a
tree trunk

iɓwat-esí- (iɓwát-) *v.* to handle
roughly

icé- *n.* Ik people

icé-áma- *n.* Ik person

ídeme- *n.* 1) snake 2) tapeworm

ídir-ésí- *v.* to knock

ídul-oni- *v.* to be a wave

íduludul-ésí- *v.* to knead

ído- *n.* 1) breast, teat 2) milk

ídzan-an-esi- *v.* to be well-off

ídz-esi- *v.* to shoot

ídz-oni- *v.* to ooze clear liquid

iɗaiy-esí- (iɗaí-) *v.* to keep back

iɗás-óni- *v.* to lie in silent ambush

iɗéɗéŋ-ésí- *v.* to swell (lymph
nodes)

idékee- *n.* airplane; fr. Swahili
ndege 'bird, airplane'

iɗen-esí- (iɗén-) *v.* to take on
credit; fr. Swahili *deni* 'debt'

iɗeŋíɗéŋ-ésí- *v.* to do on purpose

idík-óni- *v.* to coagulate, clot

idil-esí- (idíl-) *v.* to beat severely

idíl-óni- *v.* 1) to be halfway
through 2) to be full

idóɗók-ésí- *v.* 1) to heap in one
place 2) *n.* outer baby sling

iɗok-esí- (iɗók-) *v.* 1) to add on
top 2) to pour in drops

idókól-i-esí- *v.* to collect the
remainder

idolíɗól-oni- *v.* 1) to be patched
or spotted 2) to get rusty 3) *n.*
blight

idómé-ésí- *v.* to take turns

idómó-ésí- *v.* to toss in the mouth

idoŋ-esí- (idóŋ) *v.* to beat

iɗos-esí- (iɗós-) *v.* to neuter by
crushing spermatic cords

idót-óni- *v.* to hop, jump

idúkó-ós-óni- *v.* to stay put

idúz-oni- *v.* to run away

idyat-esí- (idyát-) *v.* to put
contributions together

ifáfúk-oni- *v.* to resuscitate

ifófó-ésí- *v.* to eat crops early

ifúƙúfuƙ-ésí- *v.* to sniff

ifúl-óni- *v.* to go before dawn

ifulúfúl-oni- *v.* to have explosive diarrhea

ígom-oni- *v.* 1) to bark 2) to strut

ígor-ésí- *v.* to jump or go over

íguɟuguɟ-oni- *v.* to be busy

ígulaɟ-oni- *v.* to bubble, boil

íguma- *n.* unripe, inedible crops

iɟáká-án-óni- *v.* to get rich

iɟíɲá-án-óni- *v.* to ignore someone

iɟok-esí- (iɟók-) *v.* to lend, entrust

iɟók-óni- *v.* to drool

iɟúrúr-oni- *v.* to look down shyly

iká- *n.* head

ikábur-ésí- *v.* to wrap the body

ikáɓóɓ-oni- *v.* to be skeleton-like

ikáɗó-ésí- *v.* to mix randomly

ikaiké-ésí- (ikaiká-) *v.* 1) to remove chaff 2) to whip

ikálájáár-án-óni- *v.* to be unable to make ends meet

ikásí-ésí- *v.* 1) to work 2) to do; fr. Swahili *kazi* 'work'

ikázane-esí- (ikázana-) *v.* to be determined; fr. Swahili *-kazana* 'persevere'

ikeɗ-osí- (ikéɗ-) *v.* to be angry at relatives

ikékéɲ-oni- *v.* 1) to be steady 2) to be hard-working

ikok-esí- (ikók-) *v.* to crack bones to remove marrow

ikókí-án-óni- *v.* to be an orphan

ikókór-ésí- *v.* to walk up a tree

ikokót-ésí- *v.* to follow secretly

ikókóyaa- *n.* ceremony to initiate seasonal dances

ikólíp-án-óni- *v.* to be childless

ikómó-oni- (ikómá-) *v.* to hurry ahead, go ahead

ikoɲíkóɲ-ésí- *v.* to knock at

ikoɲíkóɲ-oni- *v.* to live long

ikóɲ-óni- *v.* to swear

ikópí-oni- *v.* to condense

ikórím-ésí- *v.* to side-step

ikóteré *conj.* because of

ikuɗúkúɗ-ésí- *v.* to pick the nose

iku-esí- (ikú-) *v.* to warm up

ikúɟí-án-óni- *v.* to do miracles

ikúkúr-ésí- *v.* to dig with claws

ikúrúf-án-óni- *v.* to be poor

ikuts-esí- (ikúts-) *v.* to ostracize

ikutúkút-oni- *v.* 1) to walk backwards 2) to be talkative

ikwá-án-oni- *v.* to be the same

ikwár-ét-oni- *v.* to revive

ikwílíl-oni- *v.* to cry, scream

ikwó-óni- (ikwá-) *v.* to crow

iƙóf-óni- *v.* to avoid

iƙóƙ-í-ósí- *v.* to be doubtful

iƙól-és-uƙotí- *v.* to make a score

iƙolota- *n.* gourd without a cover

iƙórúu- *n.* 1) centipede 2) millipede 3) long semi-trailer

iƙúƙúr-ésí- *v.* 1) to erode 2) to scratch (of fowl)

iƙulúƙúl-oni- *v.* to walk around

iƙúm-únósí- *v.* to hate each other

iƙú-óni- *v.* to cry out

iƙur-esí- (iƙúr-) *v.* to stir

iláɓú-ésí- *v.* to smoothen with water

iláfúƙ-oni- *v.* 1) to be nauseated 2) to have a heart attack

iláƙíz-oni- *v.* to be nauseated

ilálé-ésí- (ilálá-) *v.* to be unfit to live with

ilámáár-án-óni- *v.* to scatter

ilaŋ-ésí- *v.* to evade

ilébileb-et-oni- *v.* to float

iléér-án-óni- *v.* to be clearly seen

ílegúgu- *n.* black ant species

iléjí-án-óni- *v.* to work part-time

íleƙóo- *n.* plant species

iléléb-ésí- *v.* 1) to carry in a group 2) to winnow

ilélémú-oni- *v.* to shout

ileŋ-esí- (iléŋ-) *v.* to be taller

ilép-óni- *v.* to dance toward the girls/women

ilerílér-oni- *v.* to rap on the head

ilér-óni- *v.* 1) to be naked 2) to sway while walking

ilérúmó-oni- *v.* to argue over s.b.

iléúr-ésí- *v.* to use a tool to look inside something

ilían-oni- *v.* to smell of blood

íliɓéɗé- *n.* green snake sp. (maybe Blue racer?); cf. *ɪlíɓ-*

ili-esí- (ilí-) *v.* to smoothen, e.g. with beeswax

iliílí-ósí- *v.* to be seamless, unbroken

ilíít-ésí- *v.* to spew a lot of words

ilílíts-ésí- *v.* 1) to shake to remove dust or water 2) to bite, shake, and release

ilim-esí- (ilím-) *v.* to dip in liquid

ilímít-ésí- *v.* to mention

ili-osí- (ilí-) *v.* 1) to be hard-of-hearing 2) to be patched with mud

ilíré-et-oni- (ilírá-) *v.* to complain

ilóɗíŋ-án-óni- *v.* to be segregative

ilóƙóts-ésí- *v.* to exchange equally

ilor-esí- (ilór-) *v.* to space

ilots-esí- (ilóts-) *v.* 1) to change, transform 2) to translate 3) to mistake sth. for sth. else

iluĵúlúĵ-oni- *v.* 1) to be filled to the brim 2) to be divided equally

ilúk-án-et-oni- *v.* to be pointed downward (of horns)

ilúkúts-ésí- *v.* 1) to turn 2) to barter

ilúƙúr-oni- *v.* to coil up

ilúlúw-ésí- *v.* to go in and out

ilúɲ-óni- *v.* to pass by (e.g. time)

ilúr-óni- *v.* to stay in a hut of mourning

imá- *n.* child

imáɗíŋ-án-óni- *v.* 1) to be impossible 2) to fail to see game on the hunt

imákó-oni- *v.* 1) to be twisted up 2) to have a difficult labor

imámáɗ-ósí- *v.* 1) to hang around food 2) to escape cleverly

imánímímán-i-esí- *v.* to weave

imáúr-oni- *v.* to be dizzy

imeɗéméɗ-án-óni- *v.* to crack

iméník-án-óni- *v.* to agree but not follow through

imets-ésí- *v.* 1) to overtake 2) to inherit

imímíɟ-ésí- *v.* 1) to raise eyebrows 2) to wink

imíŋó-oni- *v.* to trespass in a house

imítír-oni- *v.* to be blurry, hazy

imóɲíke-esí- (imóɲíka-) *v.* 1) to cut upper branches 2) to tangle

imúnúkukú-óni- *v.* to clench

imutúmút-oni- *v.* to refuse food when angry

imwáŋ-óni- *v.* 1) to look around fearfully 2) to avoid see one's mother-in-law

inákwí-ésí- (inákú-) *v.* to destroy

inéné-ésí- *v.* to hang, dangle

ín-ési- *v.* to inhabit, colonize

inyám-án-óni- *v.* to be escorted

inin-ésí- *v.* to get reliable news

iniŋ-esí- (iníŋ-) *v.* to try, test

inip-esí- (iníp-) *v.* to beat severely

inípón-oni- *v.* to be slow

inísó-oni- *v.* to be arrogant, proud

ínó- *n.* animal(s)

iɲal-esí- (iɲál-) *v.* to mix

iɲat-i-esí- *v.* to bump against

iɲék-és-ukotí- *v.* to break

íɲ-ési- *v.* to knock over

iɲéts'éy-ooni- (iɲéts'éi-) *v.* to pretend

iɲík-óni- *v.* to show negative emotions on one's face

iɲíɲí-ésí- *v.* to rub off, erase

iɲip-esí- (iɲíp-) *v.* to trim (hair or grass)

iɲok-esí- (iɲók-) *v.* to repeat, redo

iŋáɓól-ésí- *v.* to leave bottom open

iŋáɓúk-ésí- *v.* to grind after pounding

iŋálé-et-oni- *v.* to get well

iŋárúr-oni- *v.* 1) to sprout 2) to have shaving bumps

iŋátsátsó-oni- (iŋátsátsá-) *v.* to straddle

iŋáwá-án-óni- *v.* to be open

iŋáyé-ésí- *v.* to doubt

iŋókí-án-óni- *v.* to be poor

iŋolíŋól-ósí- *v.* to be alert for danger

iŋom-esí- (iŋóm-) *v.* to gulp down

i-oni- *v.* to be (somewhere)

ipáŋ́ke-esí- (ipáŋ́ka-)*v.* to hire,
rent; fr. Swahili *-panga*

ipáŋw-éésí- (ipáŋó-) *v.* to move
away

ipár-í-ésí- *v.* to break in, vandalize

ipásó-oni- *v.* to have free time

ipeɗ-esí- (ipéɗ-) *v.* to jinx, hex

ipelet-amá- *n.* wood-chip

ip-ésí- *v.* 1) to thresh 2) to thrash,
whip 2) to cast in divination

ipéyé-ésí- *v.* to confirm or initiate
into men's age-group

ip-í-és-uƙotí- *v.* to defeat, outdo

ipiipí-oni- *v.* to be air

ipiipíy-eesí- (ipiipí-) *v.* to level

ipíír-oni- *v.* to jump and kick

ipíké-ésí- (ipíká-) *v.* to beat s.b. on
the rear who is lying down

ipol-esí- (ipól-) *v.* to pull out of
the ground

ipúké-ésí- (ipúká-) *v.* to rule

ipuk-esí- (ipúk-) *v.* to fan, wave

ipúɲé-ésí- (ipúɲá-) *v.* to eat a
funeral goat

ipuŋ-esí- (ipúŋ-) *v.* 1) to tilt 2) to
carry in a sheet

ipúŋ-ét-oni- *v.* to find to be so-so

ipúré-ésí- (ipúrá-) *v.* to smoke out

ir-amá- *n.* jerky (dried meat)

iráká-án-óni- *v.* to be jealous

ireɲ-esí- (iréɲ-) *v.* to clear

iréɲí-án-óni- *v.* to be a ruffian

irer-esí- (irér-) *v.* to observe
closely

ir-ésí- *v.* to slice into strips

ír-ési- *n.* ceremony

ireʃí- *n.* water-snail shells

irían-oni- *v.* to equal, the same

iríít-ésí- *v.* to ferry, transfer

iriji-osí- *v.* to be tight

irikírík-oni- *v.* to glitter

iríƙé-ésí- (iríƙá-) *v.* 1) to polish
with sth. 2) to drag noisily

iriƙíríƙ-ésí- *v.* to saw

irim-esí- (irím-) *v.* 1) to go in
circles 2) to spy

iríó-oni- (iríá-) *v.* 1) to stay all
day 2) to fast for a day

irip-et-ésí- *v.* to skim off top layer

iríré-ésí- (irírá-) *v.* to gather up

iríríƙ-ésí- *v.* to reduce heat

iriw-esí- (iríw-) *v.* to fence around

irój-í-ésí- *v.* to search for
unsuccessfully

irok-et-ésí- *v.* to invent, compose

iróƙó-oni- *v.* to be near death

ir-oni- *v.* to be a certain way

iróríƙ-ésí- *v.* to ceremonially open
the harvest season

iróbób-esí- *v.* to do controlled
burning

iróróƙ-ésí- *v.* to hollow out

iróró-oni- *v.* 1) to have a whitish
color 2) to fade in color 3) to
rust through

irot-esí- (irót-) *v.* 1) to do repeatedly 2) to delegate 3) to transfer

iruɓ-esí- (irúɓ-) *v.* to chew hard foods

iruk-et-ésí- *v.* to heap in one place

irúk-óni- *v.* to sing

irúpó-oni- *v.* to rain sporadically between wet and dry seasons

irúrúḱ-ésí- *v.* to move in and out

irúrúmó-oni- *v.* 1) to moan 2) to roar, 3) to swarm 4) to hum

irutuméní- *n.* front wing or leg

irúút-ésí- *v.* to break off piece by piece

irwan-esí- (irwán-) *v.* to multiply

irwáp-óni- *v.* to droop shut (of eyes)

irwat-esí- (irwát-) *v.* to sprinkle

iryám-ét-oni- *v.* to get

iryéŋ-és-uḱotí- *v.* to clear a place

isi- *interr. pro.* 1) what 2) why

isálíl-oni- *v.* to have bad teeth

isép-óni- *v.* to flow

isérá- *n.* jackal

isérér-oni- *v.* 1) to be upright 2) to move straight ahead

isésél-ésí- *v.* to prune, trim

isíɗó-oni- *v.* to remain behind

isipísíp-oni- *v.* to jog

isir-esí- (isír-) *v.* 1) to decorate 2) to dress up 3) to embroider

isísé-ésí- (isísá-) *v.* 1) to practice 2) to hum

isísí-éésí- *v.* to narrate, recount

isítíye-esí- (isítíya-) *v.* to use

ísó- *n.* flood, flow

isókói- *n. Euphorbia* tree sp.

isók-óni- *v.* to go early

isómé-ésí- (isómá-) *v.* to read; fr. Swahili *-soma* 'read'

is-oni- *v.* to be heavy

isó-óni- (isá-) *v.* 1) to do first 2) to eat first, before elders

isuɗ-esí- (isúɗ-) *v.* to lie

isw-eesí- (isu-) *v.* to break wind silently

isyón-óni- *v.* 1) to have pity 2) to forgive

iʃuḱúʃúḱ-ésí- *v.* to bend down and shake

itálé-ésí- (itálá-) *v.* to menstruate

itál-í-án-óni- *v.* to be forbidden

it-amá- *v.* carrion

ítán-oni- *v.* to hope, daydream

itárákáŋ-ésí- *v.* to pretend

itéɓúk-oni- *v.* 1) to swell 2) to be stuffed 3) *n.* rabies

iteɗ-esí- (itéɗ-) *v.* to section a fallen tree

itéḱél-ésí- *v.* to dam up

itéḱítéḱ-ésí- *v.* to nod the head

itel-esí- (itél-) *v.* 1) to look (at) 2) to watch 3) to care for

itém-óni- *v.* 1) to fit 2) to be right, fitting 3) to be enough

iterítér-oni- *v.* to move with balance

ít-ési- *v.* 1) to find 2) to check on

itétém-ésí- *v.* 1) to describe 2) to evaluate 3) to copy

it-ét-óni- *v.* to come back

itíb-esi- *v.* to pack, arrange

itiɓítíɓ-ésí- *v.* to cut into planks

itik-esí- (itík-) *v.* to hold down

itik-i-es-úƙotí- *v.* to rape

itikítík-oni- *v.* to feel faint

itiŋ-ésí- *v.* to cook

ití-óni- (ité-) *v.* to go back

itíón-oni- *v.* 1) to be difficult 2) to be important 3) to be expensive

itípé-ésí- (itípá-) *v.* to pacify

itírák-ésí- *v.* 1) try 2) to catch in the act 3) to skid to a stop

itirítír-ésí- *v.* to stomp

itírón-oni- *v.* to be fast

itítík-ésí- *v.* to hold back

itítíŋ-oni- *v.* to be brave-hearted

itítír-ésí- *v.* to protect, defend

itíyé-ésí- (itíyá-) *v.* to do, make

itoɓ-esí- (itóɓ-) *v.* to interrupt

itoɗítóɗ-ésí- *v.* to peck

itóƙóƙo-oni- *v.* to be thin

ít-óni- *v.* to be a certain size or quantity

itoŋ-et-ésí- *v.* to change

itóŋíl-ésí- *v.* to make teeth ache with coldness

itóŋó-oni- *v.* to doubt, be unsure

itópén-oni- *v.* to be ugly

itosítós-ésí- *v.* to peck

itówé-ésí- (itówá-) *v.* to bless seeds to mark the new year

itóyé-ésí- (itóyá-) *v.* to cut after spearing

itsáɗén-ésí- *v.* to witness

itseɗítséɗ-oni- *v.* to hop

itséƙó-oni- (itséƙá-) *v.* to climb on

itséléli-oni- *v.* to perch

itsen-esí- (itsén-) *v.* to beg manipulatively

itsóɗ-óni- *v.* 1) to limp 2) to split up in search of game

itsó-ít-és-uƙotí- *v.* to satisfy hunger for meat

itsókó- *n.* sunbird

itsólá- *n.* bird sp.

itsópó-oni- *v.* to have sharp eyes

itsuɗútsúɗ-ésí- *v.* to plant close together

itsulútsúl-ésí- *v.* to mix, mingle

itsum-ésí- (itsúm-) *v.* to pierce

itsúr-óni- *v.* to keep boiling

itsúrú-ésí- *v.* to spear a cow

itsw-eesí- (itsu/itso-?) *v.* to cauterize

itsyák-ét-oni- *v.* to begin

itsyát-óni- *v.* 1) to be resistant 2) to recover from illness

its'ópó-oni- *v.* to be attentive

itúɓá- *n.* 1) trough 2) boat, canoe

ituɗútúɗ-ésí- *v.* 1) to be multi-colored 2) to plait patterns

ituk-esí- (itúk-) *v.* to gather up

itúkúɗ-oni- *v.* to bend

itúlákáɲ-ésí- *v.* to gulp liquid

itúlér-on-uƙotí- *v.* to utterly forget

itúlúm-oni- *v.* to hurdle

itúm-ét-oni- *v.* to spend time with

itúmúr-án-óni- *v.* to be unaware

itúr-óni- *v.* to be proud

itúrúm-ésí- *v.* to treat unfairly

iturútúr-ésí- *v.* 1) to pitter-patter 2) to burp a baby

itúts-óni- *v.* 1) to be blackish 2) to give off a musky odor

itútú-ésí- *v.* to dust off

itútúr-ósí- *v.* to be round, circular

itúúm-ésí- *v.* to act abruptly

itwáŋ-óni- *v.* to lose the way

itwar-esí- (itwár-) *v.* to chase off

itwelítwél-ósí- *v.* to be black with spots

itweɲítwéɲ-oni- *v.* to twinkle

ityak-esí- (ityák-) *v.* to forge

i̩ukúúk-ésí- *v.* to ram in

iwák-óni- *v.* 1) to make an alarm 2) to weep loudly 3) to ring (of ears)

iwakúwák-oni- *v.* to flap wings

iwálíl-oni- *v.* to go off course

iwaŋ- *v.* to get warm by a fire

iwásí-oni- *v.* to be first/last in line

iwatíwát-ésí- *v.* to bite and toss

iwe-esí- (iwá-) *v.* to cool with a big spoon

iw-ésí- *v.* 1) to hit, strike 2) ring 3) to take a picture

iwéwér-ésí- *v.* to whistle to locate a honey-guide (bird)

iwííɲ-ésí- *v.* to singe

iwitíwít-oni- *v.* to swerve, dodge

iwítsíwíts-ésí- *v.* to wag

iwíts-óni- *v.* to fly noisily

iwoɗíwóɗ-ésí- *v.* to insert into a hole

iwol-et-ésí- *v.* to be a page

iwóŋ-óni- *v.* to praise oneself

iwór-óni- *v.* to wander from home

iwós-ét-oni- *v.* to be impassably steep

iwótsí- *n.* mortar

iwots-esí- (iwóts-) *v.* to pound with mortar and pestle

iwóts-óni- *v.* to be pointed

iwówé-ésí- (iwówá-) *v.* to dust

iwówór-ésí- *v.* 1) to whistle 2) to make a large hole

iwúlák-ésí- *v.* to arrate, loosen soil

iwúp-óni- *v.* 1) to walk, swaying the head 2) to bow

iyalíyál-oni- *v.* to feel sleepy all the time

iyaŋ-esí- (iyáŋ-) *v.* to insult

iyaŋíyáŋ-oni- *v.* to feel thirsty all
the time

íye-esí- (*íʒe-) *v.* to know; cf. *ħye-*

iyér-óni- *v.* to be twisted

iyétsé-et-ésí- *v.* 1) to pour 2) to
miscarry

iyíkíyík-ésí- *v.* to move forward

iyíyé-ésí- *v.* to ululate

iyolíyól-ésí- *v.* to lower by rope

iyom-amá- *n.* work of art

i(y)-oni- *v.* to be (somewhere)

iyoŋíyóŋ-ésí- *v.* to shake buttocks

iyó-óni- *v.* to be right

iyopíyóp-oni- *v.* 1) to jump up
and down 2) to dance (of
women) 3) to see-saw

iyóp-óni- *v.* to bend down

iyótsó-ósí- *v.* to be deliberate

íziɗ-oni- *v.* to speak little

ízokom-ésí- *v.* to dress in rags

ízot-amá- *n.* solid food with gravy

ízuzu-esí- *v.* to sprinkle flour on
boiling water

Iɪ

ɪ̠áp-és-ʋƙɔtí- *v.* to handle with
care

íbaɗ-ésí- *v.* to knock (over)

ɪbaɲ-ɛsí- (ɪbáɲ-) *v.* to bump

íbatal-ésí- *v.* to carry in a sling

ɪbat-ɛsí- (ɪbát-) *v.* to break by
dropping

íbeɗibeɗ-ɔnɪ- *v.* 1) open eyes
slowly 2) to sneak up

íbɪrɪbɪr-ɔnɪ- *v.* to jabber
confusedly

íbɪt-ésí- *v.* to plant

íbɔts-amá- *n.* milk cream

íbɔts-ésí- *v.* to curdle

íbʋbʋŋ-ésí- *v.* to interfere with

ɪɓááŋ-ɔnɪ- *v.* 1) to be stupid,
ignorant 2) to be illiterate

íɓáɓé-ésí- (íɓáɓá-) *v.* to treat
gently

ɪɓák-ɔ́nɪ- *v.* to be next to

ɪɓal-ɛsí- (ɪɓál-) *v.* 1) to worry 2) to
shock, appall 3) to waste

ɪɓám-ɔ́nɪ- *v.* 1) to be free 2) to be
unoccupied, unemployeed 3)
to have free time

ɪɓaŋíɓáŋ-ɔnɪ- *v.* to be clumsy

ɪɓat-ɛsí- (ɪɓát-) *v.* to mislead

ɪɓéɓél-ésí- *v.* to split into pieces

ɪɓéɓí-ɔnɪ- *v.* to lay eggs

ɪɓɛkíɓék-ésí- *v.* to disturb

ɪɓélé-ɔnɪ- *v.* to lack self-control

ɪɓɛsíɓés-ésí- *v.* to shatter, splinter

ɪɓílér-ɔn-ʋƙɔtí- *v.* to lose sth. on
one's person

ɪɓɪlíɓíl-ɔnɪ- *v.* to be inconsistent

ɪɓí-ɔ́nɪ- *v.* to have a stomach
illness

ɪɓɪtsíɓíts-ésí- *v.* to wiggle through

ɪɓɔt-ɛsí- (ɪɓɔ́t-) *v.* to strip off bark

ɪɓʋ́ŋ-ɔ́nɪ- *v.* to hurry

ɪɓʊ́r-ɔ́nɪ- *v.* 1) to be warm

ɪɓʊɾúɓʊ́r-ɔnɪ- *v.* to do quickly

ɪɓʊts-ɛsɪ́- (ɪɓʊ́ts-) *v.* to fail

ɪɓʊ́túŋ-ɔnɪ- *v.* to sulk

ídadam-ɔ́sɪ́- *v.* 1) to grope, molest 2) to go downhill slowly

ídʊlɪdʊl-ɛ́sɪ́- *v.* to pour from a small opening

ɪɗaar-ɛ́sɪ́- *v.* 1) to ambush 2) to lay claim to

ɪɗaf-ɛsɪ́- (ɪɗáf-) *v.* to slap, clap

ɪɗakɪ́- *n. Portulaca quadrifida* plant

ɪɗák-ɔ́nɪ- *v.* to lack

ɪɗám-ɔ́nɪ- *v.* to walk aimlessly

ɪɗaɲɪ́ɗáŋ-ɛ́sɪ́- *v.* to press bit by bit

ɪɗat-ɛsɪ́- (ɪɗát-) *v.* to spank

ɪɗɛ́-ɛ́s-ʊƙɔtɪ́- *v.* to drop in

ɪɗɛɪɗɛ́-ɛ́sɪ́- *v.* to report details

ɪɗɛm-ɛsɪ́- (ɪɗɛ́m-) *v.* to give someone the 'evil eye'

ɪɗɛ́-ɔ́nɪ- *v.* to strike (of a snake)

ɪɗɛp-ɛsɪ́- (ɪɗɛ́p-) *v.* to pick up one by one

ɪɗɛr-ɛsɪ́- (ɪɗɛ́r-) *v.* to decorate

ɪɗɪɗ-ɛsɪ́- (ɪɗɪ́ɗ-) *v.* to cut into strips

ɪɗɪ́ƙɪ́l-ɔnɪ- *v.* to be about to finish

ɪɗɪm-ɛ́sɪ́- (ɪɗɪ́m-) *v.* 1) to make, do 2) to prepare, organize 3) to kill using black magic

ɪɗɪ́ŋ-ɔ́nɪ- *v.* to be narrow

ɪɗɪ́-ɔ́nɪ- *v.* to fall down (of seeds from a plant)

ɪɗɪp-ɛsɪ́- (ɪɗɪ́p-) *v.* to put a slaughtered animal on fire

ɪɗɪ́r-ɔ́nɪ- *v.* to be or move in a straight line

ɪɗɪts-ɛsɪ́- (ɪɗɪ́ts-) *v.* to beat, whip

ɪɗɔb-ɛsɪ- *v.* to arrange in heaps

ɪɗɔ́ɗw-ɛ́ɛsɪ́- (ɪɗɔ́ɗɔ́-) *v.* to cook an appetizer

ɪɗɔ́n-ɔ́nɪ- *v.* to drip

ɪɗɔɲɪ́ɗɔ́ŋ-ɛ́sɪ́- *v.* to knock on sth.

ɪɗɔrɔ- *n.* early cultivation

ɪɗɔts'-ɛsɪ́- (ɪɗɔ́ts'-) *v.* to talk continuously

ɪ̱ɛ́ɓ-ɔ́nɪ- *v.* 1) to be cold 2) to be weak 3) to be polite

ɪ̱ɛƙ-ɔnɪ- *v.* to be far

ɪ̱ɛn-ɔ́nɪ- *v.* to converse, talk

ɪ̱ɛ́ŋ-ɔ́ni- *v.* 1) to breathe 2) to rest

í-ɛ́sɪ- *v.* to clear and smoothen ground

ɪ̱ɛ́t-ɛ́sɪ- *v.* to rescue, save

ɪfalɪ́fál-ɛ́sɪ́- *v.* to chase away

ɪfɔ-ɛsɪ́- (ɪfɔ́-) *v.* to drag

ɪfɔ́fɔ́ŋ-ɛ́sɪ́- *v.* to ruffle up

ígaɗ-ɛ́sɪ́- *v.* to eat insatiably

ígatsɪgats-ɛ́sɪ́- *v.* to swallow without chewing

ígɔɲ-ɛ́sɪ́- *v.* to repay after a delay

ígɔrɔb-ɔnɪ- *v.* to jump far

ígʊ̱ɟ-ɛ́sɪ́- *v.* to gulp down

ígʊ̱ɟʊgʊ̱ɟ-ɔnɪ- *v.* to swish water

ígwɪgwɪ̱ɟ-ɛ́sɪ́- *v.* to beautify

ígwɪɟɪr-ɔnɪ- *v.* to leave an
    argument angrily

ɪɟaƙíɟáƙ-ɛ́sí- *v.* to eat like a dog

ɪɟɛ́m-ɔ́nɪ- *v.* to be quiet

ɪɟííl-ɔnɪ- *v.* to move in a line

ɪɟíír-ɛ́sí- *v.* to pour to the last drop

ɪɟɔƙíɟɔ́ƙ-ɛ́sí- *v.* to masturbate

ɪɟʊk-ɛsí- (ɪɟók-) *v.* to push

ɪɟʊla-amá- *n.* child who sleeps
    with other children

ɪɟʊl-ɛsí- (ɪɟól-) *v.* to arrange
    alternately

ɪkááb-ɛ́sí- *v.* to remove bad grain

ɪkákáp-ɛ́sí- *v.* to scoop out

ɪkáƙɛ́-ɛ́sí- (ɪkáká-) *v.* to sift

ɪkam-ɛsí- (ɪkám-) *v.* to catch, grab;
    cf. Swahili -*kamata* 'catch'

ɪkan-ɛ́sí- *v.* to negotiate for
    marriage

ɪkáɲ-ɔ́nɪ- *v.* to fast

ɪkár-ɔ́nɪ- *v.* to be thin

ɪkat-ɛsí- (ɪkát-) *v.* to try

ɪkats-ɛsí- (ɪkáts-) *v.* to mind, care

ɪkáʊ́t-ɛ́sí- *v.* to chill, cool

ɪkɛɗ-ɛsí- (ɪkɛ́ɗ-) *v.* to curse s.b.
    with a difficult labor

ɪkéét-ɛ́sí- *v.* to raise

ɪkɛt-ɛsí- (ɪkɛ́t-) *v.* to choke

ɪkɛtɪkɛt-ɛsí- *v.* to get someone's
    attention secretly

ɪkíɗíts-ɛ́sí- *v.* to enter a deep hole

ɪkíl-ɔ́nɪ- *v.* 1) to threaten 2) to
    trumpet (of elephants) 3) to
    crash (of close lightning)

ɪkɪríkír-ɔnɪ- *v.* to be impatient

ɪkɪtí- *n.* head-pad

ɪkɔ́ɓ-ínɔ́sí- *v.* to pass around to
    others

ɪkɔŋa- *n.* fried beer mash

ɪkʊɟ-ɛsí- (ɪkúɟ-) *v.* to look for

ɪkʊl-ɛsí- (ɪkúl-) *v.* to shave smooth

ɪkwal-ɛsí- (ɪkwál-) *v.* to form
    straight poles

ɪkwaríkwár-ɛ́sí- *v.* to scatter on
    the ground for drying

ɪkwatíkwát-ɛ́sí- *v.* to touch
    seductively

ɪkwéréɗ-ɔnɪ- *v.* 1) to be hard-
    working 2) to squirm away

ɪkwɛtíkwɛ́t-ɛ́sí- *v.* to round up

ɪkwɪlíkwɪ̂l-ɛ́sí- *v.* to tickle

ɪƙáál-ɛ́sí- *v.* to skim

ɪƙáƙɛ́-ɛ́sí- *v.* to prevent

ɪƙalíƙál-ɛ́sí- *v.* 1) to corral 2) to
    help in a fight

ɪƙárár-ɔnɪ- *v.* to sit on a stool

ɪƙéƙɛ́-ɛ́sí- *v.* to crack seeds

ɪƙélɛ́m-ɛ́sí- *v.* to remove one
    testicle

ɪƙɛníƙɛ́n-ɛ́sí- *v.* to trail a
    honeyguide (bird)

ɪƙɛr-ɛsí- (ɪƙɛ́r-) *v.* to mark

íƙɪɓɪƙíɓ-ɔ́nɪ- *v.* to burn slowly

ɪƙí-ɔ́nɪ- *v.* to shield

ɪkɪra- *n.* foundation

ɪkɪr-ɛsí- (ɪkɪ́r-) *v.* to write

ɪkɔb-ɛt-ɛ́sí- *v.* to throw away

ɪkɔŋ-ɛsí- (ɪkɔ́ŋ-) *v.* 1) to lean against 2) to rely on

ɪkʊjʊ́kʊ́j-ɔnɪ- *v.* to chatter (of teeth)

ɪkʊlʊ́kʊ́l-ɔnɪ- *v.* 1) to circle around

ɪkʊ́ʊ́l-ɛ́sí- *v.* 1) to take food out of the mouth 2) to gather up at the middle

ɪkwar-ɔsí- (ɪkwár-) *v.* to be down-striped

ɪkwɛr-ɛsí- (ɪkwɛ́r-) *v.* to comb

ɪlaɓ-ɛt-ɛ́sí- *v.* to scoop top layer

ɪlaɪlé-ɛ́sí- (ɪla-) *v.* to tend to do

ɪlajílój-ɛ́sí- *v.* 1) to loosen 2) to neglect to do sth.

ɪlák-ás-ɔnɪ- *v.* 1) to be happy 2) to be thankful

ɪlak-ɛsí- (ɪlák-) *v.* to pan for gold

ɪláláŋ-ɛ́sí- *v.* to eat hot food

ɪlálát-ɛ́sí- *v.* to make wet

ɪlam-ɛsí- (ɪlám-) *v.* to curse

ɪláŋí- *n.* Indian jujube (*Ziziphus mauritiana*)

ɪláp-ɛ́t-ɔnɪ- *v.* to overflow

ɪlár-ɔ́nɪ- *v.* to be patient

ɪlat-ɛsí- (ɪlát-) *v.* to add water

ɪlɛcʼ-ɛ́sí- *v.* to crush

ɪlɛkílék-ɛ́sí- *v.* to waste

ɪlɛ́kwɛ́r-ɛ́sí- *v.* to slide

ɪlélé-ɛ́sí- *v.* to hate, detest

ɪléŋér-ɛ́sí- *v.* to circumcise

ɪlé-ɔ́nɪ- *v.* to pillage, plunder

ɪlép-ɛ́s-ʊkɔtí- *v.* to disown with curses

ɪlɛtílét-ɔnɪ- *v.* 1) to lie side-by-side 2) to be satisfied

ɪlétʊ́r-án-óni- *v.* 1) to be dull 2) to refuse to listen

ɪlíɓ-ɔ́nɪ- *v.* 1) to be green 2) to be new (of foliage)

ɪlɪcʼ-ɛ́sí- *v.* to bind up

ɪlíkílík-ɛ́sí- *v.* 1) to bite and shake 2) to wobble 3) to loosen

ɪlɪlɪ-ɛsí- *v.* to dry over fire

ɪlílíŋ-ɛ́sí- *v.* to nod sideways

ɪlɪlí-ɔ́nɪ- *v.* to be angry

ɪlɪm-ɛsí- (ɪlím-) *v.* 1) to dip into liquid 2) to remove animal skin from pegs 3) to shave wood sideways

ɪlɪŋ-ɛsí- (ɪlíŋ-) *v.* to trim (e.g. hair)

ɪlɪr-ɛsí- (ɪlír-) *v.* to make sth. go around

ɪlír-ɔ́nɪ- *v.* to have body bulges

ɪlɪw-ɛsí- (ɪlíw-) *v.* 1) to have the skin 2) to press to harden

ɪlɔɓílɔ́ɓ-ɛ́sí- *v.* to spatter with mud

ɪlɔ́ɓɔ́t-ɛt-ɛ́sí- *v.* to vomit, spit out

ɪlɔ́dʼíŋ-ɛ́sí- *v.* to take what is meant for s.b. else

ɪlɔ́dʼ-ɔ́nɪ- *v.* to go around

ɪlɔílɔ́-ɛ́sí- *v.* to balance

ɪlɔ-ɛsí- (ɪlɔ́-) *v.* 1) to defeat 2) to compete with 3) to be more/less than

ɪlɔkílɔ́k-ɛ́sí- *v.* to wrap around

ɪlɔ́ƙɛ́r-ɛ́sí- *v.* to cross the legs

ɪlɔƙ-ɛsí- (ɪlɔ́ƙ-) *v.* to mix flour with cold water

ɪlɔ́lɔ́k-ɛ́sí- *v.* to thin out

ɪlɔ́lɔ́r-ɛ́sí- *v.* to feed children first

ɪlɔŋ-ɛsí- (ɪlɔ́ŋ-) *v.* to chase

ɪlɔ́ŋɔ́ts-ɛ́sí- *v.* to dress inappropriately

ɪlɔ́-ɔ́nɪ- (ɪlá-) *v.* to go

ɪlɔp-ɛsí- (ɪlɔ́p-) *v.* to transfer

ɪlɔ́y-ɔ́nɪ- *v.* to be weak

ɪlʊk-ɛsí- (ɪlʊ́k-) *v.* to carry on one's person

ɪlʊ́lʊ́mʊ-ɔnɪ- *v.* to swim

ɪlʊ́lʊ́ŋ-ɛ́sí- *v.* 1) to make spherical 2) to bribe

ɪlʊ́mʊ́lʊ́m-ɛ́sí- *v.* to munch happily

ɪlʊ́z-ɔnɪ- *v.* to doze off

ɪlwár-ɔ́nɪ- *v.* 1) to be unneeded 2) to be unemployed

ɪmaar-ɛ́sí- *v.* to count

ɪmaɗ-ɛsí- (ɪmáɗ-) *v.* 1) to apply topically 2) to bandage

ɪmak-ɛsí- (ɪmák-) *v.* to wind around

ɪmámɛ́-ɛsí- (ɪmámá-) *v.* 1) to appease, calm 2) to sweet-talk

ɪmánánɪ- *n.* Castor-oil plant (*Ricinus communis*)

ɪman-ɛsí- (ɪmán-) *v.* 1) to vow 2) to threaten

ɪmas-ɛsí- (ɪmás-) *v.* to throw

ɪmátáŋ-ɛsí- *v.* to chew tobacco

ɪmátsár-ɛ́sí- *v.* to mark

ɪmáʃán-ɛ́sí- *v.* to wave, greet

ɪmɛ́ɗɛ́l-ɛsí- *v.* 1) to give or withhold grudgingly 2) to backbite

ɪmɛ́ɗ-ɔ́nɪ- *v.* 1) to flash 2) *n.* lightning

ɪmɛl-ɛsí- (ɪmɛ́l-) *v.* to flicker (the tongue)

ɪmíɗíl-ɛ́sí- *v.* to look with one eye

ɪmɪɗímíɗ-ɛ́sí- *v.* 1) to squeeze through 2) to enlarge a hole

ɪmíɗíts-ɛ́sí- *v.* to close up a hole

ɪmɪl-ɛt-ɛsí- *v.* to pour in small quantities

ɪmímíɟ-ɛ́sí- *v.* 1) to wiggle 2) to shrug

ɪmɪnímín-ɛ́sí- *v.* to fiddle with

ɪmɪs-ɛsí- (ɪmís-) *v.* to care, mind

ɪmɔɗ-ɛsí- (ɪmɔ́ɗ-) *v.* to deceive

ɪmɔ́ɗɔ́r-ɔnɪ- *v.* to be sooty black

ɪmɔ́jír-ɛ́sí- *v.* to twist, intertwine

ɪmɔl-ɛsí- (ɪmɔ́l-) *v.* to organize

ɪmɔ́lɔ́ŋ-ɛt-ɛsí- *v.* to warm sth. up

ɪmɔ́mɔ́ɗ-ɛ́sí- *v.* to smear with stomach contents

ɪmɔrímɔ́r-ɔ́sí- *v.* to avoid taxation

ɪmʊɗʊ́mʊ́ɗ-ɔnɪ- *v.* to not see well

ɪmʊɟʊ́mʊ́ɟ-ɔnɪ- *v.* to gather spit

ɪmʊ́kɛ́-ɛ́sí- (ɪmʊ́ká-) *v.* to persevere

ɪmʊ́mʊ́j-ɛ́sí- *v.* 1) to rinse the mouth 2) to chew carefully

ɪmʊ́mʊ́-ɔnɪ- *v.* to chuckle

ɪmʊ́mʊ́r-ɛ́sí- *v.* to do/eat quickly

ɪmʊ́mw-ɔ́ɔnɪ- (ɪmʊ́mʊ́-) *v.* to have all one wants or needs

ɪmʊ́-ɔ́nɪ- *v.* to be a twin

ɪmʊ́r-ɔ́nɪ- *v.* to be under-cooked

ɪmʊ́sɛ́-ɛt-ɔnɪ- (ɪmʊ́sá-) *v.* to start fermenting (of grass, tobacco)

ɪmʊtʊ́mʊ́t-ɔ́sí- *v.* to sulk, brood

ɪnáb-ɛsí- *v.* to arrange, pack

ɪnakí- *n.* nits (lice-eggs)

ɪnap-ɛsí- (ɪnáp-) *v.* to heap up

ɪnɛpínɛ́p-ɔnɪ- *v.* to smoulder

ɪníít-án-óni- *v.* to be elastic

ɪnɪkwíníkw-ɛ́sí- *v.* 1) to support with sticks 2) to move sideways

ɪnɔ-ɛsí- (ɪnɔ́-) *v.* 1) to coil (of snake, but for sleeping) 2) to put beads around the neck

ɪnɔm-ɛsí- (ɪnɔ́m-) *v.* to beat

ɪnɔts-ɛsí- (ɪnɔ́ts-) *v.* to stick to

ɪnʊ-ɛsí- (ɪnʊ́-) *v.* 1) to burden, weigh down 2) to make ill

ɪnʊkʊ́nʊ́kw-ɛ́sí- *v.* 1) to munch softly 2) to heap in a mound

ɪnʊ́nʊ́m-ɛ́sí- *v.* to celebrate first harvest

ɪnɔ́- *n.* milk-bush (*Euphorbia tirucalli*)

ɪɲáɗʊ́t-ɛ́sí- *v.* to chew, ruminate

ɪɲɛ́ɓɛ́r-ɛ́sí- *v.* to twist the mouth in fear or anger

ɪɲɛ́m-ɔ́nɪ- *v.* 1) to bear teeth 2) to be easily angered

íɲ-ɛsɪ- *v.* to pound into paste

ɪɲɪb-ɛsí- (ɪɲíb-) *v.* to nibble

ɪɲɪɪɲí-ɔnɪ- *v.* to cry in discomfort (of infants)

ɪɲʊ́ɲʊ́r-ɔnɪ- *v.* to feel annoyed

ɪŋaal-ɛsí- *v.* 1) to poison 2) to intimidate, frighten

ɪŋáám-ɛ́sí- *v.* to grind roughly

ɪŋaar-ɛsí- *v.* to help

ɪŋáɗɛ́-ɛ́sí- (ɪŋáɗá-) *v.* to put aside

ɪŋáŋɛ́-ɛ́sí- (ɪŋáŋá-) *v.* to chew carefully

ɪŋɛlɛ́ŋɛ́l-ɛ́sí- *v.* to cut into pieces

ɪŋɪníŋín-ɔnɪ- *v.* to coo

ɪɲísím-ɔnɪ- *v.* to respond rudely

ɪɲɪt-ɛsí- (ɪŋít-) *v.* to retell a story

ɪŋɔ́lɔ́ɓɔ́ŋ-ɛ́sí- *v.* to glance sideways

ɪŋɔ́písɔ-ɔnɪ- *v.* to strut along, the neck bouncing

ɪŋʊrʊ́ŋʊ́r-ɔnɪ- *v.* to grumble

ɪ̯ɔkɔ́- *n.* pollen, nectar

ɪ̯ɔ́r-ɛsí- *v.* to throw in a spin

ɪpáɗáɲ-ɔnɪ- *v.* to be flat

ɪpáj-ɔ́nɪ- *v.* to sit on the ground

ɪpak-ɛsí- (ɪpák-) *v.* 1) to deflect 2) to wipe away liquid

ɪpáláƙ-ɔnɪ- *v.* 1) to be weak 2) to be unreliable in work

ɪpápɛ́-ɛ́sí- (ɪpápá-) *v.* to moisten

ɪpasɔ- *n.* stomping-feet dance

ɪpás-ɛ́t-ɔnɪ- *v.* to dance, stomping
the feet

ɪpɛ́ɛ́r-ɔnɪ- *v.* 1) to spend many
days 2) to starve

ɪpɛl-ɛsí- (ɪpɛ́l-) *v.* to peel off

ɪpɛ́pɛ́t-ɛ́sí- *v.* to strew about

ɪpɛrípɛ́r-ɔnɪ- *v.* to move from
person to person, in fighting,
speaking, etc.

ɪpɛtɛ́-ɛ́sí- (ɪpɛtá-) *v.* to 'platform'

ɪpíírí-án-óni- *v.* to be intelligent

ɪpíɟík-ɛ́sí- *v.* to investigate

ɪpɪm-ɛsí- (ɪpím-) *v.* 1) to measure
2) to test; fr. Sw. *ku-pima*

ɪpɪnípín-ɔnɪ- *v.* to pour or leak in
small drops

ɪpɪrípír-ɛt-ɔnɪ- *v.* to rise, of the sun

ɪpɪt-ɛsí- (ɪpít-) *v.* to tighten

ɪpɔ́pír-ɛ́sí- *v.* to twist fiber

ɪpúkák-oni- *v.* to solidify when
cooled (of heated foods)

ɪpúm-ɛ́t-ɔnɪ- *v.* to dash off

ɪpún-ɔ́nɪ- *v.* to grind quickly

ɪpúpúŋ-ɛ́sí- *v.* 1) to wrap together
2) to stuff in a container

ɪpʊts-ɛsí- (ɪpʊ́ts-) *v.* to plaster

ɪráb-ɛsí- *v.* to harvest finger millet

ɪraírɔ́-ɔnɪ- (ɪrá-) *v.* to be shiny red

ɪrák-ím-ɛ́t-oni- *v.* 1) to have an
orgasm 2) to get high 3) to
have a seizure, pass out

ɪraɲí- *n.* small corn-cob pieces

ɪraŋ-ɛsí- (ɪráŋ-) *v.* to spoil, ruin

ɪráp-ɛ́s-ʊƙɔtí- *v.* to lay claim to

ɪráráƙ-ɛ́sí- *v.* 1) to crack grain 2)
to mix grains while grinding

ɪrar-ɛsí- (ɪrár-) *v.* to gather
scattered material

ɪrɛɓ-ɛsí- (ɪréɓ-) *v.* to chop up into
little pieces

ɪrɛɓíréɓ-ɛ́sí- *v.* to cause throbbing

ɪrɛɟ-ɛsí- (ɪréɟ-) *v.* to clear land

ɪrɛm-ɛsí- (ɪrém-) *v.* to scare off

ɪrɛt-ɛsí- (ɪrét-) *v.* to prevent

ɪrɪɗ-ɛ́sí- *v.* to keep a tight hold on

ɪríɗ-ɔ́nɪ- *v.* to die

ɪríít-án-óni- *v.* to be sticky

ɪrɪɟ-ɛsí- (ɪríɟ-) *v.* to tie tightly 2) to
rub

ɪrɪk-ɛsí- (ɪrík-) *v.* 1) to surround 2)
to divide into groups

ɪrɪn-ɛsí- *v.* to look inside

ɪríŋ-ɔ́nɪ- *v.* to turn

ɪrɪts-ɛ́sí- *v.* to keep, care for

ɪrɔɗíróɗ-ɛ́sí- *v.* to do controlled
burning

ɪrɔrɔí- *n. Maerua triphylla* plant

ɪrɔ́rɔ́k-án-óni- *v.* to get too busy

ɪrʊm-ɛ́sí- *v.* to cling

ɪrúrúɓ-ɛ́sí- *v.* to insert a stick to
hold a hive's grass cover

ɪsal-ɛsí- (ɪsál-) *v.* to winnow, sift

ɪsál-ɔ́nɪ- *v.* to be right

ɪsɛɓ-ɛsí- (ɪséɓ-) *v.* to scarify

ɪsɛ-ɛsí- (ɪsá-) *v.* 1) to miss 2) to survive a mishap

ɪsékɔ́-án-óni- *v.* to be disobedient

ɪsél-ét-és-ʊƙɔtí- *v.* to ricochet

ɪsép-ɔ́nɪ- *v.* to be lame, paralyzed

ɪsííl-ésí- *v.* to pick out, sort out

ɪsíít-ésí- *v.* to accuse

ɪsɪka- *n.* bullrush

ɪsɪkar-ɛsí- *v.* to completely overpower, even after victory

ɪsɪk-ɛsí- (ɪsík-) *v.* 1) to cover a hole 2) to pump a ball 3) to eat too much

ɪsílí-án-óni- *v.* 1) to be careless 2) to do dirty jobs

ɪsíl-ɔ́nɪ- *v.* to be peaceful

ɪsɪm-ɛsí- (ɪsím-) *v.* to peel sweet stalks

ɪsínák-ɔnɪ- *v.* to sprout (of maize cobs)

ɪsɔ-ɛsí- (ɪsɔ́-) *v.* 1) to let slide 2) to swallow without chewing 3) *vulg.* to give birth

ɪsɔƙísɔ́ƙ-ɔnɪ- *v.* 1) to run while kicking or bucking 2) to coast

ɪsɔm-ɛsí- (ɪsɔ́m-) *v.* to cut brush carelessly

ɪsɔ́rɔ́ɓ-ésí- *v.* to sip slowly

ɪsɔ́rɔ́t-ésí- *v.* to shove along the ground

ɪsɔ́sɔ́ŋ-ɔ́sí- *v.* to stir (while sleeping)

ɪsɔ́wɔ́-ɔnɪ- *v.* to walk slowly

ɪsʊk-ɛsí- (ɪsók-) *v.* 1) to pass, overtake 2) to surpass

ɪsʊmúsóm-ɔnɪ- *v.* 1) to jog 2) to slowly accelerate

ɪsóɲ-és-ʊƙɔtí- *v.* to finish off

ɪsósó-ésí- *v.* to oppose

ɪsʊt-ɛsí- (ɪsót-) *v.* to move

ɪsúwɔ́-ɔnɪ- (ɪsúwá-) *v.* to be overcrowded (of crops)

ɪʃaʃɛ-ɛsí- (ɪʃáʃá-) *v.* to shake off

ɪʃém-ét-ɔnɪ- *v.* to fall

ɪʃɔts-ɛsí- (ɪʃɔ́ts-) *v.* to exchange

ɪták-ɔ́n-ʊƙɔtí- *v.* to be confused

ɪtákwán-ɔnɪ- *v.* to start first

ɪtáƙál-ésí- *v.* 1) to be closed up 2) to fit so-so

ɪtal-ɛsí- (ɪtál-) *v.* to forbid, ban

ɪtámá-án-ɔ́nɪ- *v.* to behoove, be necessary (must)

ɪtáɲát-ɔnɪ- *v.* to be fussy

ɪtáɔ́s-ésí- *v.* to give a lesser share

ɪtátám-ésí- *v.* 1) to teach, train 2) to preach 3) to advise

ɪtáté-ésí- (ɪtátá-) *v.* to walk (trans.)

ɪtátsám-án-óni- *v.* to be lazy

ɪtɛɓ-ɛsí- (ɪtéɓ-) *v.* to cut the ears of oxen for decoration

ɪtéél-ɔnɪ- *v.* to sit/lie with legs straight

ɪtéér-ɔnɪ- *v.* to stand in a line facing one direction

ɪtɛ́n-ɔ́nɪ- *v.* to be straight

ɪtɛp-ɛsí- (ɪtɛ́p-) *v.* to inseminate, copulate (*vulg.* to fuck)

ɪtɛpítɛ́p-ɔnɪ- *v.* to skip from rock to rock

ɪtétɛ́ɪ-ɔnɪ- *v.* to balance

ɪt-ɛ́t-ɔ́nɪ- *v.* to arrive (here)

ɪtɪɓítíɓ-ɔnɪ- *v.* to have contractions

ɪtííl-ɛ́sí- *v.* to have a negative effect

ɪtɪlítíl-ɔnɪ- *v.* to hurt, of joints

ɪtɪnítín-ɛ́sí- *v.* to move (body part)

ɪtɪŋ-ɛsí- (ɪtíŋ-) *v.* to force

ɪtí-ɔ́nɪ- *v.* to delay

ɪtítíɪ- *n.* Flame tree (*Erythrina abyssinica*)

ɪtɪw-ɛsí- (ɪtíw-) *v.* to strain liquid

ɪtɔ́ɗ-ɔ́nɪ- *v.* to wither

ɪtɔ́kɔ́d-ɔnɪ- *v.* to have a stitch in one's side

ɪtɔ́ƙɔ́-ɔnɪ- *v.* 1) to hobble 2) to be paralyzed in both legs

ɪtɔl-ɛsí- (ɪtɔ́l-) *v.* to char food

ɪtɔ́m-ɔ́nɪ- *v.* to be next to

ɪtɔ́ŋɔ́-ɛ́sí- *v.* to assault

ɪtɔ́-ɔ́nɪ- (ɪtá-) *v.* 1) to reach 2) to find

ɪtɔ́rɔ́ɲ-ɛ́sí- *v.* to make ridges

ɪtɔ́tɔ́ŋ-ɛ́sí- *v.* to tap (of woodpecker)

ɪtɔ́tɔ́r-ɛ́sí- *v.* to rub on a stone

ɪtsak-ɛsí- (ɪtsák-) *v.* to break into pieces

ɪtsan-ɛsí- (ɪtsán-) *v.* to disturb

ɪtsárú-án-óni- *v.* to behave badly

ɪtsɛɗítsɛ́ɗ-ɛ́sí- *v.* to dig holes randomly

ɪtsɛ́ɛ́r-ɔnɪ- *v.* to fall, of first rains

ɪtsétsɛ́-ɛ́sí- *v.* to clamber up

ɪtsɪɗ-ɛsí- (ɪtsíɗ-) *v.* to clean with fingers

ɪtsɪk-ɛsí- (ɪtsík-) *v.* to charge, order

ɪtsɪpítsíp-ɛ́sí- *v.* 1) to vaccinate 2) to have goosebumps

ɪtsír-ɔ́nɪ- *v.* to be right

ɪtsɔɓítsɔ́ɓ-ɔnɪ- *v.* to be multi-colored

ɪtsɔkítsɔ́k-ɛ́sí- *v.* 1) bend up and down 2) to crack a whip

ɪtsɔm-ɛsí- (ɪtsɔ́m-) *v.* to pound into flour

ɪtsɔr-ɔ́n-ʊƙɔtí- *v.* to dive down 2) to clamber down

ɪtsʊl-ɛsí- (ɪtsʊ́l-) *v.* 1) to pay for an impregnated girl 2) to redeem kids from a divorced husband

ɪtsʊn-ɛsí- (ɪtsʊ́n-) *v.* to gather

ɪtsʊŋ-ɛsí- (ɪtsʊ́ŋ-) *v.* to burn

ɪtsʊ́rʊ́tsʊ́r-ɛ́sí- *v.* 1) to pour out 2) to over-spend

ɪtswɛ́títswɛt-ɔnɪ- *v.* to be disgusted

ɪts'ɔ́ƙ-ɔ́nɪ- *v.* to be nearly ripe

ɪtʊr-ɛsí- (ɪtʊ́r-) *v.* 1) to pour into 2) to give rectally

ɪtʊs-ɛt-ɛ́sí- *v.* 1) to wrap 2) to hog-tie an animal

ɪtʊ́tʊ́r-ɛ́sí- *v.* to sew, mend

ɪ̯ʊɗ-ɛsí- *v.* to organize

ɪ̯ʊm-ɛsí- *v.* to capture a bride

ɪwár-ɛ́sí- *v.* to plaster with mud or manure

ɪwas-ɛsí- (ɪwás-) *v.* 1) to smear, rub on 2) to clean with oil

ɪwáwáɗ-ɛ́sí- *v.* to dice into pieces

ɪwáwɛ́-ɛ́sí- (ɪwáwá-) *v.* to caress

ɪwɛ́ɛ́l-ɛ́sí- *v.* to spread, scatter

ɪwɛt-ɛsí- (ɪwɛ́t-) *v.* to sip slowly

ɪwɪɗ-ɛsí- *v.* to grind into powder

ɪwír-ɔ́nɪ- *v.* to shine

ɪwíwín-ɛ́sí- *v.* to quarrel constantly

ɪwízɪl-ɛ́sí- *v.* to wink an eye

ɪwɔk-ɛsí- (ɪwɔ́k-) *v.* to shake a gourd filled with water

ɪwɔ́ƙ-ɔ́nɪ- *v.* to be proud, arrogant

ɪwɔ́ŋ-ɔ́nɪ- *v.* to intend to do

ɪwɔ́-ɔ́nɪ- *v.* to be frail and timid

ɪwɔʃíwɔ́ʃ-ɛ́sí- *v.* to cut meat while weapon is still in it

ɪwʊɗ-ɛsí- (ɪwʊ́ɗ-) *v.* to gather

ɪwʊ́l-ɔ́nɪ- *v.* 1) to ignore 2) to be arrogantly unteachable

ízɔɓɪzɔɓ-ɛ́sí- *v.* to whip with small sticks

Jj

jejei- *n.* leather sleeping mat

jíjei- *n.* opposite sloped bank

Jj

já̯ɓú-gwaa- *n.* helmeted guineafowl

j̯aé- *n. Gramineae* grass sp.

j̯agw-ede- *n.* daughter

jáká- *n.* elders

j̯aƙátósí- *v.* 1) to gag 2) to be nauseated

j̯aƙw-ád-oni- *v.* to be cowardly

j̯alán-óni- *v.* 1) to be different 2) to be foreign

j̯álátsɪ- *n.* plant sp. found on Turkana plains (Kenya)

j̯am-úd-oni- *v.* to be velvety

j̯aní- *v.* broom; cf *jɛn*

j̯ao- *n.* shrub sp. (*Grewia bicolor*)

j̯arám-ét-oni- *v.* to freeze still

j̯aul-ím-oni- *v.* to be bald

j̯ɛj̯-ɔnɪ- *v.* 1) to stay 2) to survive

j̯ɛní- *n.* broom; cf *j̯an*

j̯ɛ-ɔnɪ- *v.* to be pure white

j̯ɪj̯ído- *n. Acalyhpa fruticosa* plant

jíɪki *adv.* always

j̯ɪkɛ *adv.* also, too

jíkɪ *adv.* 1) completely, totally, very 2) forever

j̯ɪkɪj̯íƙ-ɔ́nɪ- *v.* to sway gently

j̯ílífɪ́fɪ́ɪ- *n.* ash starling

j̯ɪlíó- *n.* small bird sp.

j̯ɪrɪ- *n.* behind

j̯ɪrɔkʊ- *n.* sharp stick

j̯olílé- *n.* black kite

j̯orij̯ori- *n.* cricket

ɟɔɓ-ɔnɪ- *v.* to be medium-sized

ɟɔk-ɛsí- *v.* to look at, watch

ɟakalʊkaa- *n.* demonic trance

ɟɔl-ɔnɪ- *v.* to be bland, tasteless

ɟɔ́ɔ́dɛ- *n.* small fiber rope

ɟɔrɔrɔ́- *n.* 1) army ant 2) soldier

ɟɔté- *n.* small *Adenium obesium* sisal, whose root is used by boys in spearing practice

ɟul-amá- *n.* chunk (e.g. of meat)

ɟʊ-ɛsí- *v.* 1) to roast 2) to bake

ɟuɟʊʊ- *n.* plant sp.

ɟʊmʊ́- *n.* soil, dirt

ɟʊmʊɟʊm-ásí- *n.* sand

ɟʊr-án-óni- *v.* to make trouble

ɟúr-ɛ́sɪ- *v.* to massage

ɟʊrʊmʊ́- *n.* branch

ɟʊr-ʊ́t-ʊ́m-ɔnɪ- *v.* to be slippery

ɟút-ɛ́sɪ- *v.* 1) to slip out 2) to milk

Kk

kabaɗa- *n.* 1) rag 2) paper

kabasá- *n.* flour

kábil-an-et-oni- *v.* 1) to be multi-textured (of meat) 2) to be black and white (of livestock)

kábusubus-án-óni- *v.* to be blue-gray

kaɓa- *n.* 1) diaphragm 2) pectoral

kaɓaɲa- *n.* oblong gourd

kaɓéléɓel-án-óni- *v.* to bank (while flying)

kaɓúrúts-án-óni- *v.* to be murky

kádiʃo- *n.* maize or sorghum blossoms

kaɗokói- *n.* black-faced vervet monkey (and blue monkey?)

káɗ-óni- *v.* to expect

kaɗús-úm-ɔnɪ- *v.* to be petite

kaĕa- *n.* 1) tortoise 2) tortoise-shell guitar 3) small vehicle

kafʊ- *n.* thorn

kaiɗeí- *n.* pumpkin

kaikó-óni- (kaiká-) *v.* 1) to be dim 2) to get dark at dusk

kait-esí- (kaít-) *v.* 1) to taste 2) to test 3) to experience

kaɪní- *n.* year

kaká- *n.* leaf

kak-áɗ-án-oni- *v.* to be leaf-green

kakɪr-ɛ́sí- *v.* to twist around

kálé- *n.* debt

kalápát-án-óni- *v.* to be flat

kaléétsɛr-án-óni- *v.* to be rickety

kámár-án-óni- *v.* to be horizontal

kamudurudád-oni- *v.* to be stupid

kaná- *v.* back

kanaʃaa- *v.* beehive

kán-ɛ́sɪ- *v.* 1) to lick 2) to wipe off

kán-ɔ́nɪ- *v.* to be cloudless

kaɲumú- *n.* simsim

kaŋ-áɗ-oni- *v.* to be hard to chew

kaŋɛra- *n.* gourd

kapʊratá- *n.* *Ipomoea wightii* vine

karámú- *n.* male lesser eland

karám-óni- *n.* to be unable to
work

karatsi- *n.* 1) chair, stool, seat 2)
political office

karɛɛ- *n. Canthium
pseudosetiflorum* plant

karoƙo- *n.* scorched earth

karoŋó- *n.* harvest season

káruɓúu- *n.* unripe maize

káruɓúɓ-óni- *v.* to be inflated

káruts'u- *n.* carrot; fr. English?

karúts'-úm-ɔnı- *v.* to be crunchy

kasírá- *n.* sweet-stalk sorghum

kásíta- *n.* hook-thorn acacia
(*Acacia mellifera*)

káts-éde- *n.* front part

kats-ésí- *v.* to look at sth. while
shielding eyes from the sun

katʊmání- *n.* maize variety

kaúdzo- *n.* 1) *Craibia laurentii*
plant 2) money

káú- *n.* ash(es)

kaw-ésí- *v.* to cut by swinging a
sharp tool

káʒo- *n.* 1) tassle 2) lamp, torch

kazaan-óni- *v.* to be scattered

kazıtí- *n.* anus

kéaa- *n.* army; fr. K.A.R., the
King's African Rifles

kédi- *n.* 1) unit of time 2) unit of
space 3) opportunity

kedí-án-et-oni- *v.* to be black with
a white rump

keɗe *conj.* or

keídzo- *n.* wild potato-like plant

kelero- *n. Harrisonia abyssinica* pl.

kémúsi- *n.* old, dry grass

kerébe- *n.* layer of a grass-
thatched roof

keremidza- *n.* bitter gourd sp.

kerets'ú- *n.* ant-hill dirt spread on
a path to deter enemies

kesení- *n.* shield

kɛɗa- *n.* reed

kékɛ́m-ɔnı- *v.* to cackle

kélá̱- *n. Teclea nobilis* tree

kɛr-ɛsí- *v.* to wrongfully accuse

kɛsa- *n.* 1) cornea 2) cataract

kɛtɛ́l-ɔ́nı- *v.* to be clearly seen

kɛtɛ́r-ɛ́m-ɔnı- *v.* to be rigid

kéʃ-ɛ́sı- *v.* 1) to fry 2) to dry by
cooking

kiɓeɓe-ama- *n.* selfish person

kíɓíɓita- *n.* brown lizard sp.

kídzim-oni- *v.* to come down

kiɗoɗotsí- *n.* a tiny thing

kíjá- *n.* 1) world, earth 2) land,
country 3) nation 4) down

kíjá-ima- *n.* fairy, sprite

kikím-óni- *v.* to be short, stocky

kileleɓúu- *n.* ziphoid process
(cartilage below breastbone)

kilíwít-án-óni- *v.* to be cleared off

kílootóró- *n.* bird sp.

kimírá- *n.* red-billed quelea

kinoroti- *n.* peg, stake

kiɲomú- *n.* seeds

kírérébúu- *n.* millet left to sprout the following year

kirotí- *n.* sweat

kíryooróo- *n.* white-crested helmet shrike

kisan-esí- (kisán-) *v.* to distribute

kit-oni- *v.* to shiver, tremble

kitsa- *n.* pile, heap

kits-oni- *v.* to be undercooked

kíʃó- *n.* freshly cut switch

kiyérí- *n.* bird sp.

kíɓéz-amá- *n.* piece, chip

kıɗap-án-ɛ́t-ɔnı- *v.* to be black with white cheeks

kíɗɔɔ- *n.* tchagra

kíɗɔlɛ́ɛ- *n.* young baboon

kıɗ-ɔn-ʊkɔtí- *v.* to step aside

kílíkılıkáa- *n.* crested eagle

kílíɲıta- *n.* bull elephant

kılɔlɔɓa- *n.* emerald-spotted wood dove

kılɔ́ríta- *n.* Egyptian thorn or scented-pod acacia (*Acacia nilotica*)

kımɔɗɔrɔtsa- *n. Kleinia* tree sp.

kímʊ́ra- *n.* mosquito

kınámá- *n.* mushroom

kınataá- *n.* upper grinding stone

kıpʊ́r-án-et-oni- *v.* to be red-brown

kırarapá- *n.* 1) layer of slime on stagnant water 2) skin on

boiled milk 3) outer layer of stomach

kıtɔ́ɔ́s-ɔnı- *v.* to be what color?

kıtsaɗɔsı- *n. Vigna oblongifolia* pl.

kıwílá- *n.* newly cleared garden

kíz-ınɔ́sí- *v.* to move in single-file

koɗóo- *n.* leprosy-like skin disease

koɗós-óni- *v.* to be bent upwards (of horns)

kodoú- *n.* Grant's gazelle

kokíríkokó- *n.* bird sp.

kokóró- *n.* mountain ridge

kokorotsi- *n.* thistle-like plant (*Asparagus flagellaris*)

koko-esí- (kokó-) *v.* to line a hole with sisal leaves to catch ants

kol-án-ét-oni- *v.* to have a white stripe

koliméu- *n.* patas monkey

kólítsi- *n.* neck-tie

kólóro- *n.* bird sp.

kólótsi- *n.* animal skin clothing

komol-án-óni- *v.* to have patches of color

kómolóo- *n. Canthium lactescens* tree

komómá- *n.* 1) scale 2) cracked skin 3) plant sp.

komosí- *n.* buttock

komótsá- *n.* elephant's trunk

koní- *n.* muscle, ligament, tendon

kopa- *n.* 1) vulture 2) funeral goat

kopıkopí- *n.* ankle

korí-án-et-oni- *v.* to be spotted like a giraffe

kórí-et-oni- (kɔr-) *v.* to wrestle, struggle

kóróro- *n.* spotted eagle owl

koryó-óni- *v.* to have labor pains

koto *adv.* 1) so, then 2) but

kotímá- *n.* hole in a tree

kotoba- *n.* female greater kudu

kots-ésí- *v.* to fetch (e.g. water)

kots-oni- *v.* to be trapped

koʃ-és-úƙotí- *v.* to remove a scab

kɔɓ-ɔnɪ- *v.* to be fresh and hard (of maize)

kɔdza- *n.* yellow-necked spurfowl

kɔíná- *n.* whiff, scent

kɔka- *n.* small reeds

kɔk-ɛsí- *v.* 1) to close 2) to cover

kɔkɔs-án-óni- *v.* to mature fully

kɔlá- *n.* he-goat

kɔlɪlí- *n.* cucumber-like plant

kɔlɔl-án-óni- *v.* 1) to be old 2) to be infertile

kɔní- *n.* one

kɔ́nísɪ- *n.* incest

kɔ́ŋ-ɛsɪ- *v.* to cook

kɔré- *n.* fried meat

kɔr-ɛt-ésí- *v.* to char

kɔ́rɔ́ɓádɪ- *n.* thing

kɔrɔ́d-ɔ́m-ɔnɪ- *v.* to be emaciated

kɔrɔ́kú- *n.* 1) finger 2) claw

kɔ́t-ésɪ- *v.* to banish, exorcise

kɔtɔ́rá- *n.* oribi

kɔ́tsá- *n.* scabies

kɔw-ɔnɪ- *n.* 1) to be old, 2) to be chronic 3) to be old-fashioned, outdated

kua- *n.* grass

kúb-oni- *v.* to be unseen

kúbura- *n.* big container

kuɓa- *n.* hill

kúcé- *n.* rocky home of hyraxes

kúd-óni- *v.* to be short

kukátí- *n.* young primates

kuku-an-óni- *v.* to scamper down

kukudetsí- *n.* bird sp.

kukuseni- *n.* 1) underground storage hole 2) ground-hive

kumuts-án-óni- *v.* to be joined

kunétá- *n. Ximenia americana* tree

kuɲukú- *n.* pestle

kup-oni- *v.* to be cloudy

kurí- *n.* 1) shade 2) shelter 3) assembly, meeting

kuri- *n. Vepris glomerata* plant

kur-ésí- *v.* to defeat

kúrúɓádi- *n.* things, belongings

kurukurí- *n.* cloth-eating insect

kúrúkúrí- *n.* 1) shadow 2) spirit, ghost 3) reflection 4) photography 5) idol

kurukúr-óni- *v.* to avoid eye-contact

kuts-áƙ-óni- *v.* to urinate

kutsúbae- *n.* plant sp.

kútúɲi- *n.* knee

kutútá- *n.* large ant-hill

kuɓáa- *n.* husband of my wife's
    sister

kúfá- *n.* drizzling rain

kulaɓá- *n.* bushbuck

kup-ésí- *v.* to burn

kúraɪ- *n.* wait-a-bit acacia (*Acacia
    brevispica*)

kúrakɪ- *n.* raven, crow

kurúkúr-ɔ́sí- *v.* to work hard

kut-ɔnɪ- *v.* 1) to say 2) to name 3)
    to intend to do 4) to do

kwaárá- *n.* troop of baboons

kwaěɔ́- *n.* 1) tooth 2) edge

kwa-íd-oni- *v.* 1) to be chewy 2)
    to be blunt (teeth)

kwalíkwál-ɔnɪ- *v.* to shiver

kwaní- *n.* 1) penis 2) stinger

kwaɲ-és-úƙɔtí- *v.* to prevent

kwará- *n.* mountain

kwatsí- *n.* 1) urine 2) progeny

kwáts-óni- *v.* 1) to be little, small
    2) to be young

kwédekwed-án-óni- *v.* to be
    persistant in getting details

kweel-ém-oni- *v.* to be big and
    pointy (of ears)

kɔ-ɛsí- *v.* 1) to wait 2) to expect 3)
    to protect a garden from pests

kwɛlédá- *n.* termite that appears
    after rain

kwɛréd-ém-ɔnɪ- *v.* to be
    stubbornly opposed to other

kwɛréʃ-ɔ́nɪ- *v.* to be gray-haired

kwɛtá- *n.* 1) arm, hand 2) branch
    3) sleeve

kwɛts'-ésí- *v.* 1) to damage 2) to
    cause a negative change

kwɛʃ-éd-ɔnɪ- *v.* to be delicate

kwíd-oni- *v.* to have an erection

kwir-íd-oni- *v.* to be slippery

kwítsílá-didíi- *n.* francolin

kwits'-íd-oni- *v.* to be juicy

kwɪɟ-ím-ɔ́nɪ- *v.* to get dislocated

kwílɪlíɪ- *n.* local Ik tobacco

kwɪl-ím-ɔ́nɪ- *v.* 1) to grow
    suspicious 2) to be
    embarrassed

kwɪnɪƙí- *n.* hyrax

kwíɲíkɔ-ɔnɪ- (kwíɲíka-) *v.* to
    grimace as if laughing

kwír-ésɪ- *v.* to annoint in blessing

Kƙ

ƙád-esi- *v.* to shoot

ƙaƙa- *n.* hunt

ƙaƙatesí- *n.* a brace for traps

ƙálíts'i- *n.* jaw

ƙalíƙál-ésí- *v.* to gargle

ƙám-óni- *v.* to be like

ƙan-ésí- *v.* to hold

ƙɛƙérá- *n.* grasshopper

ƙéƙér-ésí- *v.* to mix (e.g. pounded
    white-ants and honey)

ƙél-ésɪ- *v.* to arrange

ƙérɪƙér-ɔ́nɪ- *v.* to be piquant

ƙir-oni- *v.* to thunder

ƙiroti- *n.* upper riverbank

ƙídz-ɛsɪ- *v.* to bite

ƙɪt-ésí- *v.* to harvest by plucking

ƙíɔ- *n.* leather strap

ƙódoʃóo- *n.* centipede

ƙoƙat-ésí- *v.* to do physical therapy

ƙoƙóo- *n.* big gourd used as a pot

ƙoƙo-án-ésí- *v.* to stretch (body)

ƙolomú- *n.* 1) spoon 2) spade

ƙol-oni- *v.* to have a nosebleed

ƙo-oni- (ƙa-) *v.* to go

ƙóré- *n.* muscle behind kneecap

ƙɔɓa- *n.* 1) navel 2) umbilical cord 3) pistol grip

ƙɔ́ɓʊƙɔ́ɓʊ- *n.* fig tree sp.

ƙɔɗ-ɔnɪ- *v.* to cry, complain

ƙɔɗɔta- *n.* hook, hooked instr.

ƙɔ-ɛsí- *v.* to straighten

ƙɔfɔ́ɔ- *n.* 1) calabash 2) plate

ƙɔƙɔta- *n.* hornbill sp.

ƙɔ́ré- *n.* 1) calabash ladle 2) spade

ƙɔ́rɔmɔm-ɔ́nɪ- *v.* to be brittle

ƙɔr-ɔnɪ- *v.* to strut, swagger

ƙúd-esi- *v.* to pour out

ƙúduƙúdu- *n.* red biting ant sp.

ƙúló- *n.* log used to bar gate

ƙuts'ats'i- *n.* lymph node, gland

ƙúz-um-oni- *v.* to be tilted over

ƙʊɗ-ésí- *v.* 1) to turn in the mouth with one's tongue 2) to suck

ƙʊɟ-úd-ɔnɪ- *v.* to be full (of mouth when someone is talking)

ƙóƙ-ínɪ- *n.* derogatory name for young children

ƙʊƙúmán-óni- *v.* to turn one's back

ƙʊléɛ- *n.* elbow

ƙʊts'á- *n.* 1) insect 2) worm

ƙwáaƙwáa- *n.* go-away bird

ƙwaatá- *n.* frog, toad

ƙwaat-et-ésí- *v.* to give birth

ƙwaɗ-oni- *v.* to be few, little

ƙwárá- *n.* scar

ƙwaza- *n.* 1) clothing 2) goat-skin 3) wedding ceremony involving a goat-skin

ƙwɛséɛ- *n.* 1) broken calabash 2) piece of junk

ƙwɪɟ-ésí- *v.* to sprain, dislocate

ƙwɪʃ-ɔnɪ- *v.* to be bright green

Ll

laɓáɲ-ám-oni- *v.* to have a wide opening

lafʊ- *n.* joint of scapula to chest

lafár-ám-oni- *v.* to be gaping

laɟám-ét-oni- *v.* 1) to collapse 2) to wilt, wither

lakám-óni- *v.* to go down out of sight

lakat-i-esí- *v.* to eat quickly

laŋ-ád-oni- *v.* to be warm (weather)

laŋír-óni- *v.* to be wide, stout

lara- *n.* tobacco pipe

lásó-ika- *n.* waterfall

liatí- *n.* his/her brother

leɓéts-óni- *v.* to be two

leɓetse *quant.* two

leɓ-úd-oni- *v.* to be bulgy

léɗá- *n.* lizard sp.

lejée- *n.* 1) mental illness 2) demon possession

lelemukání- *n.* handleless tool or weapon

lel-ésí- *v.* to eat insatiably

lemú-án-et-oni- *v.* 1) to be hornless 2) to be fat

léó- *n.* your brother

lerúk-úm-oni- *v.* to be medium-sized

leta- *n.* beaded dress or loincloth

létsá- *n.* tiny termites

leúzo- *n.* charcoal

leweɲi- *n.* 1) ostrich 2) bustard

lεɓa- *n.* liquid honey (excl. wax)

lεɓéɲ-έm-ɔnɪ- *v.* to be wide open

lεɗ-ɔnɪ- *v.* to be careless

lεεm-έt-ɔnɪ- *v.* to appear

léʝ-ɔ́nɪ- *v.* to catch on fire

lεk-ésí- *v.* to get from storage

lél-ɔ́nɪ- *v.* to be openly visible

leŋá- *n.* ratel, honey badger

leŋér-έm-ɔnɪ- *v.* to be circumcised

leŋ-ésí- *v.* 1) to hunt for wild honey 2) to look for food

lεŋúr-úm-ɔni- *v.* to be naked

lεra- *n.* white-thorn acacia (*Acacia seyal*)

lεr-έd-ɔnɪ- *v.* 1) to be dried hard 2) to be hard-headed

léza- *n.* parasitic plant

lí-íd-oni- *n.* 1) to be dull 2) to be silent

likiɗ-esí- (likíɗ-) *v.* to reach a distant goal

liƙ-ésí- *v.* to nod

lil-ét-óni- *v.* to be shocked

liɲ-ésí- *v.* to pump

lir-oni- *v.* to be unliftably heavy

lɪɪlɪ-ɔsí- *v.* to be blocked

lɪkíɗ-ím-ɔnɪ- *v.* to be narrow at the middle, broad at the top

lɪt-ɔnɪ- *v.* to be new growth

lɪw-íd-ɔnɪ- *v.* to be smooth

lobáa- *n.* grandchild

lobúrúʝi- *n.* mold

loɓáí- *n.* bone disease

lóɓíliwási- *n.* white-tailed mongoose

loɓolia- *n.* morning glory (*Basella alba*)

loɓózo- *n.* donkey snout

lóɓúlukúɲu- *n.* HIV-AIDS

loɓúrútutu- *n.* bird sp.

loda- *n.* 1) cowtail swisher 2) silk

loɗeɗé- *n. Cucumis figarei* plant

lóɗíkóró- *n.* scorpion

lóɗíwéí- *n. Maerua angolensis* pl.

lóɗúmélá- *n.* firefly or glowworm

loɗúm-óni- *n.* to sink down

lóɗúrúu- *n.* 1) granary 2) bank

lofílitsíi- *n.* Sudan gum arabic
(*Acacia senegal*)

lófúku- *n.* owl

logeréɲoó- *n.* grain-eating insect

loiɓóroku- *n.* grass sp.

lojúulúu- *n.* sorghum variety

lokaliliɲí- *n.* black snake sp.

lokemúu- *n.* thumb piano, sanza

lókíɓoɓóo- *n.* agama lizard

lokií- *n.* parrot

lokilók-óni- *v.* to wobble

lókílóróɲó- *n.* queen bee

lokírídidíi- *n.* maize variety

lokítóɲíi- *n.* hard black stone

lokitoŋo- *n.* threshold

lokoɓéle- *n.* chronic thief

lok-ód-oni- *v.* to be unsteady

lókóɗémá- *n. Toddalia asiatica* pl.

lokoití- *n.* big waist beads

lókóko- *n.* worker ant, termite

lokóoɗoó- *n.* leather water-bag

lokososi- *n.* anthill with a large
opening

lókúɗukuɗétí- *n. Capparis
tomentosa* plant

lokumú- *n. Mimusops kummel* tree

lokeƙ-esí- (lokéƙ-) *v.* to eat
gluttonously

lokílíi- *n.* brown parrot

lokólé- *n.* eagle

lokóz-om-oni- *v.* to be long-
necked

lokúu- *n.* drinking gourd

lolatiɓóni- *n.* 1) flat stone used to
carry rubbish 2) stone
granary cover

lolóm-ón-uƙotí- *v.* to fail to
germinate

lolota- *n.* large grey mongoose

lolot-án-óni- *n.* 1) to move in a
group 2) to be stuck together

lóméléwá- *n.* widow, widower

loménió- *n.* swift, swallow

lomerúká- *n.* plant sp.

lomila- *n.* honeycomb formed 3-4
days after hive colonization

lómílimílá- *n.* glandular swelling

lómoloróo- *n.* tip of the roof

lomóɲiní- *n.* gunnysack

lomucirí- *n.* type of gun

lomuƙeí- *n.* edible gourd sp.

loŋazutú- *n.* wedding ceremony
involving mixing seeds

loŋiro- *n. Meyna tetraphylla* tree

loŋór-óm-oni- *v.* to be bigger in a
spherical shape

lopemú- *n.* level, storey

lopérení- *n.* ghost

lopeí- *n.* pancreas

lopótsá- *n.* 1) egg white 2) knee
fluid

lópúli- *n.* small edible gourd sp.

loríɗá- *n.* pain while urinating

lorioŋoni- *n.* threshold

lorítá- *n.* plant sp.

lorokoní- *n.* small adze

lósínáká- *n.* smut

lósuaɲa- *n.* stone anvil

losúku- *n.* candidiasis

lotabuseni- *n.* whirlwind

lotáɗánan-esi- *v.* 1) to enter by force 2) to rebel

lotímálem-oni- *v.* to be emaciated

lotiwúóto- *n.* bird sp.

lótórobétí- *n. Zehneria scabra* pl.

lotsoro- *n.* red-billed firefinch

lótsótso- *n.* fly sp.

lótsúmu- *n.* small shack

lots'ilots'í- *n.* animal-hoof rattle

lotúɗuzée- *n.* nickname for a hyrax: "no tail"

loukú- *n.* 1) predator 2) monster

loúpalí- *n.* cobra

lóúpee- *n. Pachycarpus schweinfurthii* plant

loyetée- *n.* kind of barbet

lɔɓaɓalí- *n.* drying rack

lɔɓɛlɛɲí- *n.* spoiled millet

lɔ́ɓíɾɪɓíɾá- *n.* 1) spinal cord 2) marrow of backbone

lɔɓízɪ- *n.* roof top

lɔɓ-ɔ́d-ɔnɪ- *v.* to have medium consistency (porridge, cement)

lɔɓɔ́ŋɪɓɔ́ŋɪ- *n. Kleinia* tree sp.

lɔɓúkɛɟénɪ- *n.* stunted growth

lɔcɛgɛrɛ- *n.* type of stool

lɔkaapíní- *n.* shoelace

lɔkapɛtá- *n.* abdominal sickness

lɔkapúrá- *n.* steam

lɔkatata- *n.* African wild date palm (*Phoenix reclinata*)

lɔkaʊɗέ- *n.* weevil

lɔkέɟúʊ- *n.* water running down a flat surface

lɔ́kérúʊ- *n. Cassia singueana* tree

lɔkɪsínáa- *n.* mastitis

lɔkɪtʊrá- *n.* pinworms

lɔkɔ́ɗá- *n.* hooked stick

lɔkɔ́rí- *n.* pubis, pudenda

lɔkúɗá- *n.* small granary

lɔkʊtórá- *n.* 1) funnel-like calabash stem 2) funnel

lɔkɔɗíkɔ́ɗ-ɔ́nɪ- *v.* to be tall-necked

lɔkɔ́ŋʊ- *n.* sacred tree

lɔlέɛúʊ- *n.* cholera

lɔ́lɔwíɪ- *n. Commiphora campestris* plant

lɔmέɟέkɛlέɛ- *n.* cockroach

lɔ́mɪlíɪ- *n.* lizard sp. (possibly striped skink)

lɔ́mɔ́ɗaátí- *n. Triumfetta annua*

lɔmɔ́ɪ- *n.* inedible mushroom (*Datura stramonium*)

lɔŋɪzɛtέ- *n.* black fly sp. associated with warthogs

lɔ́ŋízɪŋízá- *n.* 1) root disease 2) toe wound

lɔŋɔ́tá- *n.* enemies

lɔɔrɔ́nɪ- *n.* glow of a fire

lɔ́pɛ́ɗɛpɛ́ɗɛ́- *n.* bat

lɔ́pírɪpírá- *n.* wood-boring insect

lɔpɪtáí- *n.* platform

lɔr-ɔ́d-ɔnɪ- *v.* to be bulbous

lɔtafara- *n. Gramineae* grass sp.

lɔ́tílɪtílɪ- *n.* grass seeds that pierce clothing and poke the skin

lɔ́tɔ́ɓa- *n.* tobacco

lɔtɔ́ƙɔ́- *n.* garden rain shelter

lɔtsɔ́gɔma- *n.* grass sp.

lɔwɪɗɪ́- *n.* trap for small animals

lɔwɪɲí- *n.* small tree bee

lɔ́wírɪwír-ɔ́nɪ- *v.* to sprint

lúguma- *n.* hard maize meal

luɟ-úd-oni- *v.* 1) to be weak-necked 2) to be plump

luká- *n.* squirrel

lúkúɗukuɗ-án-óni- *v.* 1) to slither 2) to meander, zig-zag

luƙáám-oni- *v.* to be insufficient

luƙ-ésí- *v.* to swallow

lúl-óni- *v.* to be distantly seen

luluwul-ésí- *v.* to rub with legs

lum-úd-oni- *v.* to be pliable

lúulúu- *n.* small pieces of firewood

luɗ-ɔnɪ- *v.* to congregate

luɟʊlúɟ-ɔ́nɪ- *v.* to be full

lwáŋ-óni- *v.* to drop out of sight

lyam-ád-ɔnɪ- *v.* to be powdery

Mm

maɗám-óni- *v.* to fall behind

máɗíɲi- *n.* 1) spleen 2) organization

makúlí- *n.* grass beehive cover

maƙ-és-úƙotí- *v.* to give away

malakúrí- *n. Vigna frutescens* plant

malori- *n. Sansevieria robusta* pl.

maŋ-ád-oni- *v.* to be too thick

maráŋ-óni- *v.* to be good

maríɲí- *n.* homestead fence

másálúká- *n.* ground white ants

masán-óni- *v.* to rot, decay

matáŋí- *n.* cheek

máó- *n.* lion

máʃiŋi- *n.* fatty lining of heart

máyáa- *n.* common reedbuck (?)

mayo- *n.* sickness

mázɪmáz-ɔnɪ- *v.* to be sweet-sour at the onset of fermentation

me-esí- (ma-) *v.* to give

melekeí- *n. Lannea schimperi* tree

meleti- *n.* grass sp.

meriʃ-án-óni- *v.* to be spotted

métá- *n. Cadaba farinosa* plant

méá- *n.* bundle of miraa wrapped in grass and milk-leaf leaves

mɛƙɛlél-ɔ́nɪ- *v.* 1) to be unbreakable 2) to be unchewable

mɛƙɛmɛƙání- *n.* pangolin

mélɛ́ƙúrá- *n.* wild cowpeas

mɛná- *n.* 1) words 2) issues 3) problems 4) *compl.* what

mérédɛdéɛ- *n. Vernonia cinerascens* plant

mɛrımér-ɔ́nı- *v.* to be cowardly

mɛsɛ- *n.* homebrew beer

mɛts-ésí- *v.* to erect poles

mɛʊra- *n.* superb starling

mídz-oni- *v.* to smell, stink

mígirigír-án-óni- *v.* to be hazy

míɟ-ési- *v.* to reject as unsatisfactory

milékú- *n. Canthium pseudosetiflorum* tree

milíl-óni- *v.* 1) to be syrupy sweet 2) to be watery

misi *comp.* 1) whether 2) either

misimís-óni- *v.* to be seen afar

mıdıʄí- *n.* grey-headed sparrow

mıɟíl-ím-ɔnı- *v.* to be tiny, narrow

mılíárı- *n. Gramineae* plant sp.

mıl-íd-ɔnı- *v.* to be sparkly

mıl-ɔ́d-ɔnı- *v.* to be smooth

mín-ɛ́sı-[1] *v.* to love

mín-ɛ́sı-[2] *v.* to fix an iron implement on a tool/weapon

mıník-ím-ɔnı- *v.* 1) to be gummy 2) to be frugal

mınítá- *n.* wild cat

mıɲ-ɔnı- *v.* to be deaf

míɔkɔ- *n.* green mamba

mıríd-ím-ɔnı- *v.* to be smaller than expected (e.g. of a hole)

mısáí- *n. Rhus natalensis* shrub

mısíásı- *n. Gnidia subcordata* shrub

mıtımít-ɔ́nı- *v.* to be sweet-sour

mıtír-ím-ɔnı- *v.* to be withered

mıt-ɔnı- *v.* to be (sb. or sth.)

míts'á- *n.* testicle

míʒıʒɔ- *n. Hippocratea africana* pl.

móga- *n.* uncut vegetation

mókoló- *n. Ozoroa insignis* tree

momóo- *n.* 1) maternal uncle 2) son of a sister

momotí- *n.* his/her maternal uncle

mo-oni- (ma-) *v.* to be sick

mor-ét-óni- *v.* to grow, sprout

morıdo- *n.* beans

morókú- *n.* 1) throat 2) voice 3) shaft

mor-oni- *v.* 1) to fear 2) to respect 3) to run away

moʃ-ésí- *v.* to peel off

mozokodí- *n. Ormocarpum trichocarpum* tree

mɔdɛ́- *n.* ground bee

mɔdɔ́dɔ́- *n.* 1) cocoon 2) sleep

mɔk-ɛ́sí- *v.* to cover white-ant hill with grass and soil

mɔkımɔ́k-ɔ́nı- *v.* to be about to rain

mɔkɔrɔ́- *n.* small pool in rock

mɔ́ɲ-ɛ́sı- *v.* to gossip

mɔs-ɔnı- *v.* to wilt, wither

mɔza- *n. Grewia villosa* tree

muceé- *n.* 1) path 2) way, method 3) destiny, luck

muɗ-ésí- *v.* to bury

múɗuɗúu- *n.* Senegal coucal

múɗúk-án-óni- *v.* 1) to be blind 2) to close the eyes

muɟál-ám-oni- *v.* to be bland like undercooked porridge

mukétí- *n.* flesh between jaws

mukúa- *n.* night

muƙí-án-et-oni- *v.* to be brown

mulúráŋ-oni- *v.* to be upset (of stomach)

mumú-án-óni- *v.* 1) to be far-sighted 2) to be too far to see

múmuta- *n. Selaginella phillipsiana* moss sp.

muɲu *quant.* all

múrotsío- *n.* tree sp.

muruté-éku- *n.* open path

mususabáa- *n.* biting grub that Ik children play with

musus-án-óni- *v.* to be hung-over

mʊka *adv.* 1) forever 2) never 3) really, totally

mʊkʊt-ɛsí- (mʊkút-) *v.* to close up like a fist

múƙésɪ- *n.* tree bee

mʊƙúr-úm-ɔnɪ- *v.* to be hunchbacked

múlʊƙúƙ-ɔ́nɪ- *v.* to have gas and/or nausea

múmút-ɔnɪ- *v.* 1) to grieve in anger 2) to be going off (food)

mʊr-ɛsí- *v.* to ferment (e.g. flour for beer)

mʊrɔní- *n.* 1) *Cynodon dactylon* plant 2) tobacco garden

mʊsa- *n. Euphorbia grandiformis* tr.

mʊtʊú- *n.* wooden pin, needle

Nn

náabúsi- *n.* hedgehog

naaseɲaɲá- *n.* worker bee

nabéza- *n.* allergy

náb-ɔn-ʊƙɔtí- *v.* 1) to finish, complete 2) to be enough

naɓálámorúu- *n.* mouse sp.

naɓó *adv.* 1) again 2) moreover

nadɛkwɛla- *n.* watermelon var.

nádzaƙa- *n.* my friend

naɗɛ́pɛ- *n.* flea

naɗiaka- *n.* 1) long dress 2) hair on back of head

náf-ɔ́nɪ- *v.* to call out rudely

náganága- *n.* monitor lizard

na-íd-oni- *v.* to be gummy

naɪtakípʊratá- *n.* caracal

nakariɓá- *n.* pods, husks

nakatʊmání- *n.* maize var.

nakɪrɔ́rí- *n.* sheath

nakolitáka- *n.* striped snake sp.

nakúsó- *n.* animal sleeping place

nakútá- *n.* wooden hoe-like tool

naƙafú- *n.* 1) tongue 2) language

náƙíraa- *n.* striped hyena

naƙólíti- *n.* log brace (for gates)

naƙúlɛ́ɛ- *n.* 1) sinus 2) room

naƙw-ɛ́sí- *v.* to suck, suckle

naƙw-íd-ɔnɪ- *v.* 1) to be attractive
    2) to fit well

naƙwíní- *n.* stick to hold snares

nalemudzoɗaa- *n.* bird sp.

nalíɪlíɪ- *n.* sorghum var.

nalój-óni- *v.* to be loose-fitting

nalɔŋɪzatá- *n.* desert wilderness

namɛɗɔɔ- *n.* back of the head

námúíi- *n.* sister-in-law

nanɪŋɪnɪŋí- *n.* axe-head

naŋʋrámɓɔɔ- *n.* bird sp.

napéélemú- *n.* bird sp.

napéríti- *n.* campsite

naperorwáa- *n.* pumpkin sp.

napóɗee- *n.* namaqua dove

narɛ́ʋ- *n.* viper sp.

narúéti- *n.* neighborhood

nasɛmɛ́ɛ- *n.* big oblong gourd

nasoroɲí- *n.* large intestine

nateɓúu- *n.* worker termite

natélewáa- *n.* rat sp.

natɛ́ɓa- *n.* sorghum var.

natɪŋáa- *n.* hyena nickname

natolokaa- *n.* rainbow

natsɛra- *n.* striped ground rat

nats-ɛ́sí- *v.* to cook repeatedly

natsiko- *n.* grass granary cover

natsíɓɪlíɪ- *n.* female bushbuck

natúku- *n.* group discussion

na-úd-oni- *v.* to be flimsy

ńda *prep/conj.* 1) and 2) with

ndaí- *interr. pro.* where?

ndo- *interr. pro.* who?

nébu- *n.* 1) body 2) self

nes-ésí- *v.* 1) to hear 2) to listen

nɛ-ɛsí- (na-) *v.* to endure

nɛpɛƙ-án-óni- *v.* to argue

nɛr-ɛ́d-ɔnɪ- *v.* to be wobbly

nɛ́rɪnɛ́r-ɔ́nɪ- *v.* to be unbalanced

nɛsɛƙ-án-óni- *v.* 1) to be clean 2)
    to be healthy

nɪkw-íd-ɔnɪ- *v.* to be tough (stiff)

nɪƙwíníƙ-ɔnɪ- *v.* to be flimsy

nɪn-ɛt-ɛ́sí- *v.* to scout out

nɪr-íd-ɔnɪ- *v.* to be sticky

nɪtsɪnɪtsɪ- *n.* fatty nape of neck

nɔk-ɛ́sí- *v.* to block off

nɔƙɪnɔ́ƙ-ɔ́nɪ- *v.* to be shaky

nɔƙ-ɔ́d-ɔnɪ- *v.* to flimsy

nɔ-ɔsá- (na-) *n.* cleverness

nɔsa- *n.* noise

nɔts-ɔ́d-ɔnɪ- *v.* to be sticky

ńtí- *pro.* they

ńtóondó *inter.* no

ntsí- *pro.* he, she, it

nts'aƙ-ɔ́nɪ- *v.* to defecate

nusu- *n.* deep sleep

nuts-ésí- *v.* to mend with mud

núnút-ɔnɪ- *v.* to escape

nʋsá- *n.* male leopard

Ɲɲ

ɲáaɲúni- *n.* dormouse; means 'not seen' in Karimojong

ɲábʊlánɪ- *n.* vest

ɲáɓaarátí- *n.* wrist-knife

ɲaɓaɓaá- *n.* scaly skin

ɲáɓáɓúu- *n.* plant sp. whose leaves are pepper-red

ɲaɓáítɪ- *n.* dawn

ɲáɓarasánɪ- *n.* first layer of thatch

ɲáɓolí- *n.* 1) girls' beaded skin garment 2) beaded decoration

ɲáɓúsi- *n.* 1) painless swelling 2) plant sp. used to treat knees

ɲaɓʊraí- *n.* maize

ɲaɓʊrétɪ- *n.* sheath

ɲáɓwaá- *n.* hot scrubland

ɲácáɗaá- *n.* decorative animal skin

ɲaɗaɗ-ésí- *v.* to collect garden rubbish

ɲáɗúi- *n.* crater, volcano

ɲájoreé- *n.* gang

ɲájaaráa- *n.* button

ɲákááɗoŋotí- *n.* cowbell, rattle

ɲákaasóo- *n.* robe

ɲákaɓíri- *n.* sorghum variety

ɲákaɓɔɓwáátá- *n.* finger ring

ɲákáɗeŋoó- *n.* women's apron

ɲákakará- *n.* round cap

ɲákakʊráa- *n.* metal hoe

ɲákalááta- *n.* metal basin, pan

ɲákálɪrɪkɪtí- *n.* metal-tipped stick

ɲakaloó- *n.* alarm

ɲákamariɗúku- *n.* cotton

ɲákamúkaá- *n.* vine sp.

ɲákámusí- *n.* darkness

ɲákamʊláraá- *n.* pepper plant

ɲákaparatá- *n.* aluminum earring

ɲákápɪrɪtí- *n.* whistle

ɲákáratí- *n.* fig tree sp. (*Ficus*)

ɲákátɪríɓaá- *n.* fruit tree sp.

ɲákɪláᵏa- *n.* brassiere

ɲákolí- *n.* 1) string 2) thin body part 3) rope neck-trap

ɲakuɉí- *n.* god, God

ɲakúɉáa- *n.* riverbed waterhole

ɲálaaɉáíti- *n.* long grass sp.

ɲalakʊtsí- *n.* wedding ceremony where new wife makes beer for her husband's elders

ɲálaᵏamáíti- *n.* collarbone

ɲálamorúu- *n.* flute, pipe

ɲálemú- *n.* rooster's crown

ɲálésoó- *n.* light, thin garment

ɲal-íd-oni- *v.* to be squashy

ɲálukutúɉuú- *n.* caracal, serval?

ɲámáa- *n.* grass for thatching

ɲamaɗaɲí- *n.* tick

ɲámakaɗáa- *n.* AK-47 rifle

ɲámakaɗíi- *n.* soda ash

ɲamakaɉeé- *n.* 1) gonorrhea 2) urinary tract infection

ɲamakukú- *n.* M-shaped stool

ɲámalí- *n.* 1) arrow, bullet 2) boy

ɲámánɪmaní- *n. Hibiscus aethiopicus* plant

ɲámaritóíti- *n.* 1) wire bracelet 2) round metal earring

ɲamatiɗaá- *n.* type of gun

ɲámátsarí- *n.* mark, sign

ɲámoɗó- *n.* meat from front of animal thighs

ɲánamú- *n.* lake, sea

ɲánɪnɔ́ɔ- *n.* leather whip

ɲápɲɪwání- *n.* cactus

ɲaŋá-án-et-oni- *v.* to be yellow

ɲaŋál-óm-oni- *v.* to have a gap in the teeth

ɲaŋalúrá- *n.* kidney

ɲaŋárótɛɛ- *n.* immature maize

ɲaŋ-ésí- *v.* to avenge

ɲaŋuú- *n.* 1) ostracized hyena 2) beast, monster

ɲapaaruú- *n.* slingshot, catapult

ɲápaɗɛrí- *n.* large inedible gourd

ɲapalaá- *n.* red soil

ɲapalaraŋí- *n.* broken pot piece

ɲápárɪ- *n.* flat lid

ɲapatsɔlɛɛ́- *n.* bare patch

ɲapáyɛ́lɪ- *n.* bare patch of ground

ɲapúɗ-úm-oni- *v.* to be powdery

ɲápʊkání- *n.* government

ɲar-ama- *n.* girl

ɲárák̑wá-ákɔ- *n.* lonely place

ɲararáa- *n.* cheetah

ɲarátáta- *n.* wall

ɲárɛ́mʊ- *n.* insecurity, unrest

ɲáruráka- *n.* fat mashed together

ɲarúkúmʊ- *n.* 1) a cold 2) phlegm

ɲárúmáa- *n.* injury

ɲárʊpɛpɛ́ɛ- *n.* long blowing horn

ɲásaaɟí- *n.* saddle

ɲasalí- *n. Cassia hildebrandtii* plant

ɲásaŋáɲoó- *n.* ground bee sp.

ɲatalí- *n.* 1) custom 2) taboo

ɲátatsí- *n.* trap

ɲátóe- *n.* beaded belt

ɲatsɪrí- *n.* tailbone

ɲátúɗuú- *n.* big oblong gourd

ɲátúmu- *n.* sword

ɲa-úd-ɔnɪ- *v.* to be crystallized

ɲ́ci- (NOM ŋ́kᵃ) *pro.* I

ɲéɓéɓutí- *n.* waterbuck

ɲéɓiróo- *n.* stick with a knot on one end; *rungu* in Swahili

ɲéɓuneé- *n.* straw for sipping beer

ɲéɓurí- *n.* drum

ɲeɓurií- *n.* bohor reedbuck

ɲéɓurocóo- *n.* cartridge

ɲéɓúruɓurí- *n.* upper riverbank

ɲecaak̑oó- *n.* washing brush

ɲécaalá- *n.* tree sp.

ɲéɗɪŋí- *n.* long digging stick

ɲéɗíolí- *n.* lard

ɲéɗíporí- *n.* 1) tobacco smoke residue 2) earwax

ɲeɗúkóri- *n.* place where a clan harvest white-ants

ɲégetsí- *n.* 1) leg-hairs 2) spur

ɲégirói- *n.* bamboo

ɲéɟemú- *n.* bog

ɲékelí- *n.* 1) joint 2) plant segment

ɲekiliriɲí- *n.* striped fox sp.

ɲékilitóni- *n.* wild okra-like plant

ɲekinerí- *n.* meat cut

ɲékipeyési- *n.* initiation

ɲekísóriti- *n.* 1) venom 2) potion

ɲekúrúmu- *n.* Turkana milk gourd

ɲékútama- *n.* leather oil container

ɲeƙuluú- *n.* clay pot

ɲéƙúruwotí- *n.* riverbed pool

ɲéleɓuléɓuú- *n. Ochna* plant sp.

ɲéliwolíwoó- *n.* infertile couple

ɲélúruú- *n.* quail

ɲémílií- *n.* salt

ɲémúɗetsí- *n.* scum

ɲémúkuɲi- *n.* ant species

ɲémúƙetí- *n.* topi

ɲémurúŋguu- *n.* miraa

ɲéɲamá- *n.* joint ligaments

ɲéɲésoó- *n. Rhynchosia hirta* plant

ɲépíriaa- *n.* hippopotamus

ɲépórosí- *n.* big scar

ɲépulée- *n.* groundnut

ɲera- *n.* girls

ɲériɓáa- *n.* military operation

ɲéríɓiriɓí- *n.* mirage

ɲérikiríki- *n.* earthquake

ɲérímamaá- *n.* driftwood

ɲerinƙísi- *n.* line

ɲéripipíi- *n.* brick kiln

ɲéritáa- *n.* 1) large box trap 2) door curtain 3) slaughtering

ɲéríwií- *n.* outer fence

ɲérúmatsí- *n.* rear spear-tip

ɲérúpeé- *n.* sporadic rain between wet and dry seasons

ɲeryaɲí- *n.* 1) government 2) modernity

ɲésiɓalitútuú- *n.* yellow stone var.

ɲésíití- *n.* ground bee sp.

ɲesoƙolokée- *n.* men's shorts

ɲésótoó- *n.* pointed granary cover

ɲeteeɗeé- *n.* 1) headdress feather-holding spring 2) front sight

ɲétélitelí- *n.* 1) bird waddle 2) earlobe scar

ɲétendée- *n.* palm tree sp.

ɲétépesí- *n.* 1) long lip-plug 2) small reeds used to make a granary

ɲétílií- *n.* Uganda kob

ɲetíɲáŋa- *n.* crocodile

ɲétiriƙáa- *n.* flat basket

ɲétsúurí- *n.* watercourse

ɲétúleé- *n.* flute, whistle

ɲéturuƙúƙuú- *n.* chicken backbone

ɲetutuú- *n.* aardwolf

ɲéúɗeé- *n.* wild carrot-like plant

ɲeuria- *n.* duel

ɲeúríánete- *n.* animal resting spot

ɲɛɓ-ɛ́sí- *v.* to grumble to oneself

ɲɛɓɔŋí- *n.* white ibis

ɲɛɓʊraɲí- *n.* snuff container

ɲɛcáátɪ- *n.* folded cloth worn
     around the head

ɲécɛlɛɓé- *n.* nickname for
     something black

ɲécɪpɪtáa- *n.* arrow

ɲécʊmaá- *n.* colobus monkey

ɲɛd-éd-ɔnɪ- *n.* to protrude

ɲɛɗɛkɛé- *n.* sickness, disease

ɲéɗɛ́s-ɛdɛ- *n.* trigger

ɲéɗĩa- *n.* concluding marriage
     ceremony

ɲéɗĩɪtí- *n.* 1) tsetse fly sp. 2)
     talking drum

ɲéɗĩrɪ- *n.* female beisa oryx

ɲéɗɔ́nɪɗ-ɔní- *v.* to be born with
     extra fingers or toes

ɲééƙɪéƙɪ- *n.* musical rattle

ɲéésa- *n.* guy, dude

ɲéésɛɛ́- *n.* boulder

ɲɛkésétɛ- *n.* comb

ɲéƙílamaá- *n.* he-goat sacrificed
     for a new wife

ɲéƙílɔɗaá- *n.* beaded bracelet

ɲéƙɪpɛtétɪ- *n.* flat part of back

ɲɛkípyéɛ- *n.* earth spirit, demon

ɲéƙɪsakáté- *n.* shelter

ɲéƙítɔ́wɔ́ɔ- *n.* physical exhaustion

ɲéƙɔ́ƙɔ́tɛ́ɛ- *n.* aggregate stones

ɲɛkʊlʊmɛɛ́- *n.* wooden container

ɲéƙúraraá- *n.* skin disease (e.g.
     mange or shingles?)

ɲɛkwɛɛ́- *n.* swollen testicles
     (hydrocele?)

ɲɛƙɛ- *n.* 1) hunger 2) famine

ɲɛƙɪlí- *n.* bangle

ɲéƙɪrɪƙírɪ- *n.* saw

ɲɛƙwɛrétɛ- *n.* rake

ɲélɛƙɛrɛ́ɪ- *n.* roof-reed running
     horizontally under thatching

ɲélɛlí- *n.* corpse

ɲélɛmáa- *n.* dance in which one
     holds another's waist

ɲélímɪlɪmí- *n.* drizzling rain

ɲɛlɪrátí- *n.* sword

ɲélɔ́kɪlɔkí- *n.* vine

ɲémélɛɛ́- *n.* aluminum jewelry

ɲémɛlɛkúʊ- *n.* hoe

ɲɛmɛraí- *n.* sorghum var.

ɲémídɪmɪɗĩ- *n.* ear infection

ɲémɪɪkɔ́ɔ- *n.* mingling stick

ɲénénɛɛ́- *n.* 1) bundle of crops 2)
     swarm of bees

ɲénʊkʊnúkʊʊ́- *n.* mole

ɲɛɲɛr-ɛsí- (ɲɛɲér-) *v.* to slide apart

ɲɛ́ɲ-ɛ́sɪ- *v.* to commit violent
     crimes

ɲéɲɪɪɲíɪ- *n.* gold dust

ɲépéɗɛɛ́- *n.* small piece of
     aluminum jewelry

ɲépélʊʊ́- *n.* line dug in a garden

ɲépɛní- *n.* type of gun

ɲépénɛké- *n.* beard

ɲépɛtáa- *n.* hinge

ɲɛpíƙísɪtí- *n.* lower arm or leg

ɲɛpɪtɛɛ́- *n.* manner, behavior

ɲɛrɛ́ɛ́tɛ- *n.* marsh

ɲérɪkɪríkɪ- *n. Hoslundia opposita* pl.

ɲésɛɛɓɔ́ɔ- *n.* 1) penis shaft 2) curved tool 3) gearshift

ɲésɛ́ƙɔɔ́- *n.* attitude

ɲésɪlɪɓáa- *n.* knitting needle

ɲésílɪsɪlí- *n.* ligaments joining ribs to backbone

ɲésútɛɛ- *n.* wild carrot-like plant (*Hypoxis obtusa*)

ɲétɛrɛƙéƙɛɛ́- *n.* tetanus

ɲétílɪtɪlí- *n.* earring

ɲétɔɔkídɛ́ɛ- *n.* sunflower

ɲɛtʊnɛɛ́- *n.* chicken-pox

ɲɛ́ʊrɛrɛ́ɛ- *n.* sweet-smelling weed

ɲɛʊrʊlatsí- *n. Indigofera arrecta* pl.

ɲéwɔƙɔ́lɪ- *n.* face beads

ɲícwéɲée- *n.* Sugar bush (*Protea gaguedi*)

ɲíkwaamwíyáa- *n.* starling sp.

ɲimíɲímat-oni- *v.* to have gas/bloating pain

ɲimir-ésí- *n.* 1) to clean hands 2) to give to someone's child

ɲip-íd-oni- *n.* to be soft

ɲjíní- *pro.* we (including hearer)

ɲóɓókotó- *n.* bowl-shaped cap made of human hair

ɲóɓóotí- *n.* camp

ɲoɗóde- *n.* antbear

ɲóɗomée- *n.* plant with yellow, gummy fruit (*Cordia sinensis*)

ɲóɗomoŋolee- *n.* maize var.

ɲóɗósi- *n.* colostrum

ɲokoɗaburí- *n.* gerenuk

ɲokoɗopeí- *n.* grass sp.

ɲokólípi- *n.* barren person

ɲókokoróo- *n.* game of throwing spears at objects

ɲóƙoloƙolétí- *n.* tree whose yellow fruits are edible

ɲókorimíti- *n.* 1) terracing 2) garden boundary

ɲólí- *n.* dik-dik

ɲolóɗoó- *n.* horizontal roof beam

ɲomokoɲoó- *n.* leftovers

ɲómongóo- *n.* cassava

ɲomórótoto- *n.* python

ɲóróiroí- *n.* mold, mildew

ɲoroƙoó- *n.* thin person

ɲorótónití- *n.* upper arm

ɲósótoó- *n.* 1) large lid 2) temporary shelter used in hunting or gardening

ɲota- *n.* friend from another tribe

ɲotóbori- *n.* swamp

ɲótooɗóo- *n.* cane with curved neck used by Turkana women

ɲówoɗíi- *n.* ground groundnuts

ɲɔ́kɔɗɔɔŋɔ́rɪ- *n.* bird sp.

ɲɔkɔkɔrɔ́- *n.* chicken

ɲɔkɔ́ɲétɪ- *n.* forceps

ɲɔ́kɔ́pɛɛ́- *n.* valley

ɲɔlɔlɔtí- *n.* okra

ɲɔmɔr-ésí- *v.* to abuse verbally

ɲɔ́nɔmɔkɛ́rɛɛ́- *n. Withania somnifera* plant

ɲɔŋɔ́r-ɔ́m-ɔnɪ- *v.* to be dirty

ɲɔ́ŋɔtsání- *n.* confusion, chaos

ɲɔ́pɔɗɔkúʋ- *n.* tsetse fly sp.

ɲɔpɔlí- *n.* flesh below ribs

ɲɔrɔní- *n.* famine

ɲɔrɔ́púɔ- *n.* ritual animal organs

ɲɔ́sɔ́ɔ́katá- *n.* deep hole-trap

ɲɔtɔ́- *n.* men, husbands

ɲɔ́tɔɗɔpáa- *n.* small lantern

ɲɔ́tsɔ́ɓɛɛ́- *n.* giraffe-hair cap

ɲʋm-ésí- *v.* to choose

ɲúɲ-ésɪ- *v.* to collect (e.g. rubbish)

Ŋŋ

ŋabérí- *n.* rib

ŋáb-esi- *v.* to wear, dress

ŋabití- *n.* beads

ŋabóboo- *n.* 1) playground 2) dancing floor

ŋáb-ɔn-ʋkɔtí- *v.* 1) to finish, complete 2) to be enough

ŋabɪŋáɓ-ɔ́nɪ- *v.* to cause burning pain (e.g. eyes or skin)

ŋáɓɔ́ɔlaá- *n.* cent

ŋácáɗaí- *n.* animal skin leggings

ŋadzulú- *n.* solidified sheep blood

ŋaɗétáɪ- *n.* sandal

ŋáɗʋkaná- *n.* coconut tree sp.

ŋáítɔɔ- *n.* porridge

ŋakɪɓʋkú- *n.* sour milk, yogurt

ŋalɛ́pána- *n.* fresh milk

ŋalúɓ-óni- *v.* to be toothless

ŋámá- *n.* sorghum

ŋamɪŋám-ɔ́nɪ- *v.* to rush into things

ŋámírɔ- *n.* soaked maize mush

ŋamurí- *n.* duiker

ŋáɲ-ɛ́sɪ- *v.* to open

ŋapokói- *n.* leather legging

ŋápupú- *n.* type of local beer

ŋaráɓ-ám-oni- *v.* to have a rough texture

ŋaríámʋ- *n.* dark stone ground up to dye women's hair

ŋárɔpɪyáɪ- *n.* money

ŋar-úd-ɔnɪ- *v.* 1) to be rocky 2) to contain rocks (e.g. gizzard)

ŋat-ɔnɪ- *v.* to run

ŋátuɓeé- *n.* pumpkin sp.

ŋáturú- *n.* 1) flower 2) pollen

ŋawílá- *n.* chaff

ŋawɛ́-ɔ́nɪ- *v.* to be open, frank

ŋaʃábu- *n.* placenta

ŋaʃ-ɛ́t-ɔ́nɪ- *v.* to be startled

ŋɛl-ɔ́sí- *v.* to be chipped, dented

ŋɛrá- *n.* four-pronged mingling stick

ŋgó- *pro.* we (excluding hearer)

ŋíɓáaŋaá- *n.* bird sp.

ŋiit-esí- (ŋiít-) *v.* to soften

ŋíkaɗiiɗíi- *n.* bird sp.

ŋíkísilaá- *n.* law

ŋila- *n.* gizzard

ŋiléétsi- *n.* shame

ŋim-án-óni- *v.* to meet

ŋímúíi- *n.* twins

ŋír-ési- *v.* to remove rubbish

ŋirots-án-óni- *v.* to be whitish-
   gray

ŋítsení- *n.* ghost

ŋits'eí- *n.* edible mushroom sp.

ŋiy-oni- *v.* to be damp

ŋíɓáɓʊtɔɔ́- *n.* waterbuck

ŋíɓalɛlé- *n.* edible mushroom sp.

ŋííɗ-ɛ́sí- *v.* to rub off

ŋíkaɗɛpíɗɛ́pʊ- *n.* flea

ŋíkalʊtúrɔɔ́- *n.* pumpkin sp.

ŋilíɲíl-án-óni- *v.* to be cut up

ŋímɔ́kɔ́kaá- *n.* young men

ŋísɪlí- *n.* 1) silk 2) optic nerve

ŋítésʊrɔɔ́- *n.* banana var.

ŋítsaní- *n.* trouble, hardship

ŋítʊ́mɪka- *n.* bedbug

ŋɪʃ-ɔnɪ- *v.* 1) to be strong 2) to be
   hard 3) to be expensive

ŋíz-ɛsɪ- *v.* 1) to clear the throat 2)
   to hawk, peddle 3) to slander

ŋíkaɗɛɛɗɛ́ɪ- *n.* 1) sparks 2) gold
   flakes

ŋíkaŋóki- *n.* pimple

ŋ́karakocói- *n.* bottlecap game

ŋkérépe- *n.* madness

ŋkó-óni- (ŋká-) *v.* to get up, stand

ŋkɔ́lía- *n.* fish

ŋkwáŋáɪ- *n.* aluminum lip plug

ŋƙáƙá- *n.* food

ŋƙwaá- *n.* traditional healer

ŋodól-óm-oni- *v.* to be lame

ŋókí- *n.* 1) dog 2) poor person

ŋoré- *n.* colored soil

ŋorók-óni- *v.* to be spotted black
   and white

ŋoróts-án-óni- *v.* to drain (of a
   wound)

ŋotó- *n.* mud plaster

ŋɔ́ɔ- *n.* your mother/aunt

ŋɔɓ-ɔnɪ- *v.* to look guilty

ŋɔf-ɛ́sí- *v.* to stuff food in one's
   mouth

ŋɔ́r-ɔ́nɪ- *v.* to be early

ŋɔrɔ́ɲ-ɔ́m-ɔnɪ- *v.* to be soiled with
   dirt or food

ŋɔ́rɔ́r-ɔnɪ- *v.* 1) to growl 2) to
   snore

ŋɔts-ɔnɪ- *v.* to be tight

ŋɔ́z-ɛsɪ- *v.* to glare at s.b.

ŋu-esí- *v.* to struggle over sth.

ŋúnó- *n.* rope

ŋus-ésí- *v.* to grab, snatch

ŋúzum-an-oni- *v.* to quarrel

ŋʊɓ-úd-ɔnɪ- *v.* 1) to be brittle 2)
   to be stretchy, flexible

ŋúɗúŋúɗú- *n.* 1) waterbug 2)
   tadpole

ŋʊɗʊ́s-úm-ɔnɪ- *v.* 1) to be short
   and stout 2) to be born
   without limbs

ŋʊ-ɛ́sí- *v.* to grind

ŋʊmúŋʊ́m-án-óni- *v.* to be mixed
 with pockets of flour or
 uncooked bits of food

ŋʊrá- *n.* cane rat

ŋʊr-ɛ́sí- *v.* 1) to cut 2) to break 3)
 to cross

ŋʊrʊrúɲ-ɔ́nɪ- *v.* 1) to sprout 2) to
 regrow (of hair)

ŋʊrúsáɪ- *n. Justicia* plant sp.

ŋwaá- *n.* female animal

ŋwááti- *n.* his/her mother

ŋwaná- *n.* garden that has been
 harvested more than once

ŋwanɪŋwán-ɔ́nɪ- *v.* to be average,
 so-so, mediocre

ŋwaʃ-ɔnɪ- *v.* to be disabled

Oo

obóléni- *n.* hip

óbuʝo- *n.* rhino

odiosi- *n.* large number, multitude

ódou- *n.* day, daytime

ódza- *n.* dry season

óɗe-eku- *n.* ford

oɗomori- *n.* male bushbuck

ofurí- *n.* 1) leather bag 2) pocket

ógoɗ-ɛ́sí- *v.* to keep for later

ógo-esí- *v.* 1) to leave, let 2) to
 forgive, excuse

óidík-óni- *v.* to sing loudly

okílóŋóró- *n.* queen bee

oƙ-és-úƙotí- *v.* to keep aside

óƙírotí- *n.* bird sp.

olíɓóo- *n.* getting free things
 without working for them

oliota- *n.* alpha male baboon

ol-ód-oni- *v.* 1) to be lightweight
 2) to be active 3) to be eager

oní- *n.* abandonded homestead

oŋerepé- *n.* rufous beaked snake

oŋori- *n.* elephant

oŋoroɓoɓó- *n.* cartilage

oregeme- *n.* lone male baboon

orikiriki- *n.* 1) large container 2)
 compound, homestead

oroméní- *n.* secretary bird

orómóo- *n.* Bruce's green-pigeon

osorosi- *n.* barren woman

ot-ɛ́sí- *v.* 1) to pour 2) to put
 poles in holes 3) to brew 4) to
 have an abortion

ots-ésí- *v.* to climb

otsiɓila- *n.* bird sp.

otsuru- *n.* premium tobacco

owaa- *n.* fruit of the desert date

Ɔɔ

ɔ́ba- *n.* inner cheek

ɔ́bɛra- *n. Hibiscus cannibus* plant

ɔ́b-ɛsí- *v.* 1) to occupy 2) to hold
 the 'floor' when speaking

ɔ́dɔka- *n.* 1) gate 2) patriclan 3)
 chapter

ɔfa- *n.* cough

ɔf-ɔ́d-ɔnɪ- *v.* 1) to be lightweight
 2) to be easy

ɔfɔrɔ́kɔ́- *n.* 1) dry honeycomb 2)
    eggshell
ɔgɛra- *n.* male monkey
ɔgɔnɔ́- *n. Grewia tanax* shrub
ɔ́ɟá- *n.* 1) wound, sore 2) knot
ɔká- *n.* bone
ɔkɔ́tsí- *n.* 1) step 2) meter, yard
ɔlíɪ- *n.* grass sp.
ɔlírɪ- *n.* female hyrax
ɔmɔ́ʃá- *n.* 1) peel 2) scab
ɔŋɔ́r-án-et-oni- *v.* 1) to be reddish-
    brown 2) to be dirty, murky
ɔríyɔ- *n.* bird sp.
ɔrɔrɔ́- *n.* small river, stream
ɔtáí- *n.* rainy season
ɔ́za- *n.* bottom

Pp
paɗók-óm-oni- *v.* to have a
    sunken-in stomach
paɗo- *n.* small cave
pak-ésí- *v.* to split in two
pakó- *n.* cave
palór-óm-oni- *v.* to be bald
papaɗ-ósí- *v.* to be left over
parɪpár-ɔ́nɪ- *v.* to glisten
páupáu- *n.* scout bee
pɛɗépɛ́ɗ-án-óni- *v.* to flap wings
pɛɛ́ɲ-ɛ́m-ɔnɪ- *v.* to walk in a flat-
    buttocked way
pélɛ́ɗɛkɛ- *n.* short-leaf tobacco
pɛl-ɛ́m-ɛ́t-ɔnɪ- *v.* to appear
pɛsɛl-amá- *n.* small piece

pid-ésí- *v.* to pass between
pik-ód-oni- *v.* to be worn smooth
pir-íd-oni- *v.* 1) to be glittery 2) to
    feel fine
pɪɗ-íd-ɔnɪ- *v.* to be sleek
pɪlír-ím-ɔnɪ- *v.* to be squinty-eyed
pɪl-ɔ́d-ɔnɪ- *v.* to be slippery
poɗ-ésí- *v.* to husk
pok-ésí- *v.* 1) to wedge 2) to eat
    big chunks
pol-ósí- *v.* to scavenge hungrily
pór-óni- *v.* to proceed
porórí- *n.* nearly mature maize
poroti- *n.* 1) lid 2) bent stick used
    to remove seeds from gourds
poʃ-ésí- *v.* to peel
poʃ-ód-oni- *v.* to be talkative
pɔɗ-ɔ́d-ɔnɪ- *v.* to move gracefully
pɔpɔsa- *n.* lizard
pɔsɔ́k-ɔ́m-ɔnɪ- *v.* to move clumsily
pɔt-ɔ́d-ɔnɪ- *v.* to be slick
pul-ésí- *v.* to pierce, perforate
púrurúu- *n.* measles
puurúu- *n.* chicken pox
púusi- *n.* cat
puus-úm-oni- *v.* to be short, fat
puŋór-úm-ɔnɪ- *v.* to be stubby
pʊrák-ám-ɔnɪ- *v.* to be soft to eat
pʊr-ɔnɪ- *v.* to survive
pʊsɛ́l-ɛ́m-ɔnɪ- *v.* 1) to be brittle 2)
    to be left-over
pʊtɔ́m-ɔ́nɪ- *v.* to pass right
    through

Rr

rábuʃ-ɔnɪ- *v.* to squat or crouch in an attempt to hide

rágani- *n.* wild edible tuber

rágo- *n.* 1) ox 2) infertile man

raɟ-ésí- *v.* 1) to return 2) to answer

raƙáƙ-ám-oni- *v.* to be gravelly

ramʊ- *n.* pile of dried *Euphorbia* branches

ram-ɛ́sí- *v.* 1) to remove more than one 2) to be polygamous

rara-an-óni- *v.* to fall gently

rárím-oni- *v.* 1) lose wealth 2) to be exhausted

ratatáɲ-óni- *v.* to be squat

rat-oni- *v.* to be at ground-level

ráts-ɛ́sɪ- *v.* to mend

rébe- *n.* finger millet

réb-esi- *v.* to withold, deny

reɗeɗ-án-óni- *v.* to crackle

régirég-oni- *v.* to chatter noisily

reŋ-oni- *v.* to faint, collapse

rét-óni- *v.* to be bent, slouched

rɛbɛ- *n.* drizzling rain

rɛɗ-éd-ɔnɪ- *v.* to be tender

rɛɗ-ɛ́sí- *v.* to squeeze

rɛɛt-ɛ́sí- *v.* to defeat, conquer

rɛféƙéɲ-ɔnɪ- *v.* to sit down abruptly (e.g. from weakness)

rɛ-íd-ɔnɪ- *v.* 1) to work without resting 2) to do what one wants

rɛƙéɲ-ɛ́m-ɔnɪ- *v.* to be stunted

réƙ-ɛ́sɪ- *v.* to scrape, shave

res-éd-ɔnɪ- *v.* to be penetrably thin

ríbirib-án-óni- *v.* 1) to be near-sighted 2) to be cross-eyed 3) to have shallow holes

riɓíríɓ-oni- *v.* to glimmer

rídziridz-án-óni- *v.* to be shredded

rié- *n.* goat

rí-ínósí- *v.* 1) to run after each other (of children) 2) to pursue in an illicit sexual relationship

ríɟá- *n.* bush, forest

rikíríki- *n.* rocky outcropping

riko- *n.* long pole

riƙoŋo- *n.* brewing gourd

rim-oni- *n.* to hide, be hidden

ripá- *n.* hole in the ground

riri-an-óni- *v.* to be sweltering

rirísá- *n.* tree sp.

ris-ésí- *v.* to insult

rit-ésí- *v.* to push soil away from a hole

rit-íd-oni- *v.* to be scrumptious

rɪɗ-ɛ́sí- *v.* to sink in (e.g. teeth, needles, etc.)

rɪm-ɛ́sí- *v.* to take shelter in

rɪs-ásɪ- *n.* blaze

ríts-ɛ́sɪ- *v.* to catch up to s.b.

roɓa- *n.* people

rogirogi- *n.* 1) tortoise shell 2) tortoise shell bell

roiró-óni- *v.* to break loose

rori- *n. Acacia* tree sp.

rórói- *n.* waist

rɔb-ɔ́d-ɔnɪ- *v.* to be rubbery

rɔɓá- *n.* animal collar

rɔɗ-ɛ́sí- *v.* to pierce with thorn or needle

rɔ́-ɛ́sɪ- *v.* 1) take remainder of meat home after a hunt 2) to enter a dark space

rɔ́gɛ- *n.* mountain reedbuck

rɔj-ɔ́d-ɔnɪ- *v.* 1) to be squishy, mushy 2) to be arthritic

rɔ́ƙ-ɛ́sɪ- *v.* to mount a beehive

rɔ́ƙɔ́ɔ- *n.* Tamarind (*Tamarindus indica*)

rɔ́ƙɔ́rɔ́ƙ-án-óni- *v.* to be hoarse

rɔ́m-ɔ́nɪ- *v.* to be dense (e.g. an unburned thicket)

rɔɲ-ɛ́sí- *v.* to force sth. that does not fit properly

rɔ́rɔ́t-ɔnɪ- *v.* to walked hunched over

rɔ́t-ɛ́sɪ- *v.* 1) to spy 2) to check on

rɔwá- *n.* flat, treeless area

ruɓ-ét-óni- *v.* to fall (e.g. a tree)

rúɓ-óni- *v.* to groan in pain

rúgetsi- *n.* protruding part

rúgurug-án-óni- *v.* to be uneven

rujúr-új-án-óni- *v.* to be swollen and wrinkly

rukúdzo- *n. Zanthoxylum chalybeum* tree, with sharp thorns that deliver poison

rukurúk-óni- *v.* to be nervous

rúm-án-oni- *v.* 1) to fall 2) to have an accident 3) to fail

rumurúmá- *n.* sharp stubs of burnt grass

rus-úd-oni- *v.* to be tender

ruta- *n.* sweet beer

ruts-ésí- *v.* 1) to repair again 2) to force s.b. to go somewhere

rutúduma- *n.* pigeon

rúb-ɛsɪ- *v.* to hang in the house

rúb-ɔnɪ- *v.* to sprout

rúgʊɗ-ʊm-ɔnɪ- *v.* to be bent over

rʊj-ɔnɪ- *v.* to have a short neck

rʊkú- *n.* hump (e.g. of a cow)

rʊr-ɔnɪ- *v.* to bruise

rút-ɛsɪ- *v.* to blow the nose

rw-ɛ́ɛsɪ- (rú-) *v.* 1) to string through a hole 2) to pass through

rw-eesí- (ru-) *v.* to uproot

Ss

saí- *pro.* some other(s)

sábai- *n.* fatty stomach lining

sabaa- *n.* river

sáɓ-ési- *v.* to kill (more than one)

ságo- *n.* snare

sakámá- *n.* liver

sálíl-et-oni- *v.* to go asleep (of limbs)

sáŋamátí- *n.* soft rock

saŋáŋó-oni- (saŋáŋá-) *v.* to be rough and bumpy (skin on tongue or plucked chicken)

sarɪsarí- *n.* bridge of nose

sár-óni- *v.* to still/not yet be

sasara- *n.* chewed beeswax

sátá- *n.* shallow rock pool

saúk-úm-oni- *v.* to be fuzzy

sawatɔ́- *n.* shoulder

sawáts-ám-oni- *v.* to have patches of grass

sea- *n.* blood

séí- *n.* white or pink quartz

séɓ-ési- *v.* to sweep

seɓur-án-óni- *v.* to look unkempt and unhealthy

séda- *n.* garden

seekó- *n.* soup, broth

sega- *n.* umbrella thorn (*Acacia tortilis*)

segerí- *n.* soft-wood tree sp. (*Steganotaenia araliacea*)

seíneníi- *n.* *Stereospermum kuntianum* tree

sekán-ám-oni- *v.* to be shallowly concave

sekwér-óni- *v.* to scurry up

seƙel-án-óni- *v.* to be thin like old dry piece of wood

séméded-án-óni- *v.* to be sloped

semél-ém-oni- *v.* to be oval

serei- *n.* big calabash bowl

serínaa- *n.* sorghum variety

ses-i-an-óni- *v.* to have whispered discussions

sɛkɛmání- *n.* chaff with seed

sɛk-ésí- *v.* 1) to shave smooth 2) to peel, scrape off

sɛlét-ém-ɔnɪ- *v.* to be slippery

sɛrɛp-ɛsí- (sɛrép-) *v.* to slide horizontally

sɛwa- *n.* stick

sídilée- *n.* turtle

sigirigiri- *n.* mane

sikwár-ám-oni- *v.* to be shabby

sikw-ésí- *v.* to braid

siƙá- *n.* dew

siƙisíƙ-án-ét-oni- *v.* to be grainy in color or texture

simá- *n.* fibrous string or rope

siŋír-óni- *v.* to have a furrowed brow

siŋ-oni- *v.* to be upset

sírá- *n.* message, announcement

síts'á- *n.* 1) hair 2) sacrifice

sits'-ésí- *v.* to engage, betroth

sɪb-án-óni- *v.* to have an early pregnancy

síbɔ- *n.* yeast, leaven

síb-ɔnɪ- *v.* to stand around (of more than one person)

sídɔr-ɔm-ɔnɪ- *v.* to be lean

sí-ɛ́sɪ- *v.* to smear with goat dung during funeral ceremony

síkɔ́ɔ́r-ɛ́sí- *v.* to winnow

síƙ-ɔ́nɪ- *v.* to hesitate

sɪlaɓ-án-óni- *v.* to be watery

sílɔlɔ́jɟá- *n.* dwarf mongoose

símídɪdĭɪ- *n.* tiny invisible thing

sɪmɪdĭmícɗ-ɛ́sí- *v.* to knead

sɪmír-ɔ́nɪ- *v.* to rust

sín-ɛ́sɪ- *v.* to cover with branches (e.g. a corpse)

sɪŋílá- *n.* small black ant sp.

síɔtɔ- *n.* large-leaf albizia (*Albizia grandibracteata*)

sírɪ- *n.* edema

sɪsí- *n.* honey-beer, mead

sɪsɪɓ-ɛsí- (sɪsíɓ-) *v.* to lure bees

sɪsɪká- *n.* middle

soƙol-án-óni- *v.* to be curved forwards (of horns)

sómomój-óni- *v.* to be a rash

soreé- *n.* boy

sosóbosi- *n.* sausage tree (*Kigelia africana*)

sot-ɛ́sí- *v.* to carve, sculpt

sɔ́ká- *n.* calabash without a stem

sɔkɔ́- *n.* 1) root 2) hoof

sɔlɪsɔlɪ- *n.* sharp grass sp. that can cut the skin

sɔní- *n.* clitoris

sɔr-ɛ́sí- *v.* to pluck

sɔsá- *n.* beeswax

súɓ-án-oni- *v.* to prepare to go

sugurá- *n.* 1) wind 2) spirit 3) disease 4) telephone

súmá- *n.* haze

súró- *n.* shaded field

súsá- *n.* maize cob

sut-oni- *v.* to respond as a group

sʊa- *n.* barb, spine

súb-ɛsɪ- *v.* to influence, persuade

sʊɓ-ɛ́sí- *v.* to kill with a hex

sʊɗa- *n.* lowest (last) rib

súk-ɛ́sɪ- *v.* to fail to find

súƙ-ɔ́nɪ- *v.* to itch

sʊlút-úm-ɔnɪ- *v.* to be conical

sʊpa- *n.* 1) breath 2) spirit

sʊrʊsúr-ɔ́nɪ- *v.* to be lanky

súút-ɛ́sí- *v.* 1) to brush teeth 2) to sand smooth

Σʃ

ʃáɓút-ɛ́sí- *v.* to eat side dishes without the staple food

ʃakúts-úm-oni- *v.* to be cavernously deep

ʃáƙ-át-oni- *v.* to draw saliva

ʃaƙʊ- *n.* remains of meat on hide after animal has been skinned

ʃáná- *n.* direction

ʃara- *n.* bladder

ʃats-ɔnɪ- *v.* to escape, go in exile

ʃa-úd-oni- *v.* to be paper-thin

ʃér-óni- *v.* to burp, belch

ʃɛɓ-ɛ́d-ɔnɪ- *v.* to be tender

ʃɛɓ-ɔnɪ- *v.* to be afraid, timid, shy

ʃɛ-ɛsí- *v.* to spray, sprinkle

ʃɛʃ-ɔnɪ- *v.* to be stuffed, bloated

ʃikw-ama- *n.* bush bandit

ʃíƙ-óni- *v.* to sneeze

ʃíd-ɔnɪ- *v.* to be green

ʃɪk-ɛsí- *v.* to hang up

ʃɪŋatí- *n.* late evening/early night

ʃok-óm-óni- *v.* to sprout

ʃoʃ-oni- *v.* to be a refugee

ʃot-án-óni- *v.* to be perfect

ʃoúʃoúu- *n. Asclepiadacae* vine sp.

ʃɔ́b-ɛt-ɛsí- *v.* to choose, select

ʃɔ́d-ɔn-ʊƙɔtí- *v.* to regain normal
    color (of skin)

ʃɔ́ŋ-ɛsɪ- *v.* to fix a gourd handle

ʃɔŋɔŋɔ́- *n.* women's fur cloak

ʃɔr-ɔ́d-ɔnɪ- *v.* to be dilute

ʃɔ́ts-ɛsɪ- *v.* to exchange, trade

ʃut-ɛsí- *v.* to drive through a hole

ʃuʃu-an-óni- *v.* to swell

ʃuʃúbo- *n.* Forest dombeya
    (*Dombeya goetzenii*)

ʃúr-ɛsɪ- *v.* to leave parts of soil
    undug out of laziness

Tt

taasám-óni- *v.* to be sour

taatsa- *n.* payment

tábu- *n.* large pink/red flower
    often worn by little girls

tábaɪ- *n.* West

tabaní- *n.* 1) wing 2) fin

tábari- *n.* pool, waterhole

tabarɪbarɪ- *n.* insect sp.

tábas-an-et-oni- *v.* to have reddish
    spots

táb-esi- *v.* to touch

tabú-óni- *v.* 1) to foam up 2) to
    boil over 3) to climb all over
    each other (e.g. ants)

tábʊrʊbʊr-ɔnɪ- *v.* to be hot (of the
    ground)

taɓúr-án-ét-oni- *v.* to enter
    puberty

taɓá- *n.* large rock, boulder

taɓɛ-ɛsí- (taɓá-) *v.* to extend hands
    for mercy or alms

taɓak-ésí- *v.* to carry in arms

taɓal-esí- (taɓál-) *v.* to plunder

taɓól-óni- *v.* 1) to dance in victory
    2) to boast in one's exploits

taɓóɲ-óm-oni- *v.* to have flat
    buttocks

taɗáɗáŋ-oni- *v.* to be bitter but
    edible

taɗáŋ-óni- *v.* to persevere

taɗap-esí- (taɗáp-) *v.* 1) to mend,
    patch 2) to ambush

taɗats-án-óni- *v.* to be abandoned

tafák- (tafak-ésí-) *v.* to spread
    under (e.g. bag to catch flour)

taítay-óóni- (taí-) *v.* to spin

tajak-esí- (taják-) *v.* to hold in the
    mouth

tajal-esí- (tajál-) *v.* to give up,
    give in

takaɗ-esí- (takáɗ-) *v.* to despise

takán-óni- *v.* to be visible

takárí- *n.* face, forehead

ták-ési- *v.* to mean, intend

takw-ésí- *v.* to step (on)

takáí- *n.* shoe

tak ́ám-óni- *v.* to be sudden

takata- *n.* call-and-response prayer

talak-esí- (talák-) *v.* to release

talali-domo- *n.* small animal that steals food from homes

taló-óni- (talá-) *v.* to be nauseated

tamɛ-ɛsí- (tamá-) *v.* to praise, compliment (friend or bull)

tamáís-án-óni- *v.* to smile

tamán-ɛ́t-ɔnɪ- *v.* to pass around

tam-ɛ́sí- *v.* to think

tamʊra- *n.* 1) beard 2) pubic hair

tanaŋ-esí- (tanáŋ-) *v.* 1) to plaster with mud 2) to knock or bump 3) to box with fists

tanɔ́-ɔ́nɪ- (taná-) *v.* to be a number

taɲ ́ɛ-ɔ́nɪ- *v.* to spread out

taŋat-esí- (taŋát-) *v.* to struggle for a share, claim

taŋatsár-óni- *v.* to fork

táŋ-ɛ́sɪ- *v.* to make an appeal to

tapɛ-ɛsí- (tapá-) *v.* to falsely accuse

táráb-i-ésí- *v.* to check pockets

taráɗáa- *n.* 1) groundnut, peanut 2) striped ground squirrel

taraŋ-ésí- *v.* to place nearby

tarát-és-oni- *v.* to have bad manners

tarí-ɔ́nɪ- *v.* to be pregnant

tásá- *n.* 1) grave 2) ghost

tasaɓ-esí- (tasáɓ-) *v.* 1) to add more 2) to exaggerate

tasál-óni- *v.* to cancel, call off

tasáp-ét-oni- *v.* to initiate into elderhood

tasɔ́-ɔ́nɪ- (tasá-) *v.* to stroll

tasɛ-ɛsí- (tasá-) *v.* to raise (e.g. a child)

tatí- *n.* spit, saliva

tátaa- *n.* my paternal aunt

tatanáma- *n.* so-and-so

tataɲ-esí- (tatáɲ-) *v.* to meet nearby

tatatí- *n.* his/her paternal aunt

tatif-í-án-óni- *v.* to be wet and dirty (e.g. a wound)

tatíája- *n.* plant sp.

tat-oni- *v.* to spit

tatón-óni- *v.* to worry, be anxious

tátóo- *n.* your paternal aunt

tatsáɗ-óni- *v.* 1) to go away from others 2) to be singled out

tatsɔ́-ɔ́nɪ- (tatsá-) *v.* 1) to shine 2) be crisp and clear (weather)

táts'-ɔ́nɪ- *v.* 1) to be unused 2) to be unobstructed

tatúná- *n.* chin

tawaɗ-esí- (tawáɗ-) *v.* to dig for
water

tawan-esí- (tawán-) *v.* 1) hurt,
harm 2) to act harshly toward

tebeleƙesí- *n.* scoop made from
half a calabash

tébin-ésí- *v.* to lean on (e.g. a
walking stick)

teɓús-úm-oni- *v.* to be abnormally
short and plump

tenuse- *n.* male beisa oryx

terégi- *n.* 1) work 2) ministry

ter-ésí- *v.* 1) to divide 2) to
intervene 2) to judge

tetíŋ-óni- *v.* to be thick

téb-ɛsɪ- *v.* to get, receive

té-ɛ́t-ɔnɪ- *v.* to fall, drop

tɛkɛɲ-ɛsí- (tɛkɛ́ɲ-) *v.* to check (to
see if ready)

téƙéd-ɛm-ɔnɪ- *v.* to be shallow

tɛkɛr-amá- *n.* soldier ant

téƙéz-ɛm-ɔnɪ- *v.* to be shallow

tɛlɛ-ɛsí- (tɛlɛ́-) *v.* to spread open

tɛlɛ́ts-ɔ́nɪ- *v.* to fork, split

tɛŋɛ́f-únɔ́sí- *v.* to provoke each
other

tɛŋɛl-ɛsí- (tɛŋɛ́l-) *v.* 1) to chip,
dent 2) to excise lower teeth

téŋérɪ- *n.* state of being culturally
restricted from certain areas

térɛkɛ́ƙɛɛ́- *n.* meningitis

tɛrɛré-ɔ́nɪ- *v.* to be sharply bitter

tɛ́r-ɛ́sɪ- *v.* to move aimlessly

tɛs-ɔnɪ- *v.* to be unfixably broken

tɛts-ésí- *v.* to kick

tɛwɛ-ɛsí- (tɛwɛ́-) *v.* to broadcast

tɛwɛra- *n.* bridge

tɛwɛr-ɛsí- (tɛwɛ́r-) *v.* to blacken
hair

tézɛɗ-ɔnɪ- *v.* to bend one leg

téz-ɛt-ɔnɪ- *v.* to get finished

tíbolokoɲi- *n.* fingernail, toenail

tígak-oni- *v.* to crouch briefly

tíkoŋu- *n. Lantana trifolia* shrub

tikorotótó- *n. Aloe wilsonii* plant

tikorotsi- *n.* spurfowl, francolin

tikóts-óm-oni- *v.* to be shallow (of
tree-hole water)

tílaɲi- *n.* buffalo thorn (*Ziziphus
abyssinica*)

tiléɲi- *n.* pupil (of eye)

til-ím-óni- *v.* to cool down after
boiling

tilokotsi- *n.* African grey hornbill

tilóts'-óm-oni- *v.* to be ill-fitting in
a larger hole

timélí- *n.* small stick for
supporting a roof or trap

timói- *n.* tail

timu-oza- *n.* alpha male baboon

tin-oni- *v.* to be thick and opaque

tiŋátiŋáa- *n.* rat sp.

tir-ésí- *v.* to inseminate, have
sexual relations with

tír-ési- *v.* 1) to hold 2) to have

tiróŋí- *n.* molar

tisíl-óni- *v.* to be quiet, lonely (of a place)

titi-an-óni- *v.* 1) to be hot 2) to be feverish 3) to be fashionable

titik-esí- (titík-) *v.* to try to prevent

titírí- *n.* 1) forked pole 2) ladder

titir-ésí- *v.* to support

tits'-és-úɓotí- *v.* to keep hidden

tíbɪɗ-és-ɔ́nɪ- *v.* to be constipated

tíbɪɗɪl-ɔnɪ- *v.* to summersault

tɪbí-ɔ́nɪ- *v.* to protrude

tɪɓɔ́- *n.* tall grass sp.

tígaramatsɪ- *n.* eldest child

tíírɪ- *n. Acacia* tree sp.

tɪkɪ-ɛt-ésí- *v.* to hang inside house

tɪkɔra- *n.* hail

tɪlíw-ɔ́nɪ- *v.* 1) to be pure, pristine 2) to be a virgin

tɪmɪɗ-ɛsí- (tɪmíɗ-) *v.* to lick fingers

tɪɲíɲí- *n.* black ant sp.

tɪrɪf-ɛsí- (tɪríf-) *v.* 1) to snoop 2) to wander in a group 3) to lie in wait

tírɪ́ɓɪ́ɓɪí- *n.* tiny person

tírɪríŋ-ɔ́nɪ- *v.* to have good fortune

tɪtɪ́jí- *n.* heel

tɪtɪm-ɛsí- (tɪtím-) *v.* to learn by watching

tɪts'-ésí- *v.* to fill up a hole

tɪw-íd-ɔnɪ- *v.* to be tiny

tóbiribir-oni- *v.* to ascend

toɓ-ésí- *v.* 1) to strike (e.g. with spear) 2) to raid, attack

toɓúl-óni- *v.* to fear strange happenings

tóda- *n.* 1) speech, talk 2) language

toɗó-óni- *v.* to start doing sth.

toɗú-óni- *v.* to explode

tofóróɓ-ét-óni- *v.* to compose bull praise-songs loudly while walking home at night

toíɗ-óni- *v.* to have scoliosis

toip-án-óni- *v.* to be a youth

tokóp-és-uɓotí- *v.* to take by force

tokú-ét-oni- *v.* to change one's mind or behavior

toɓ-amá- *n.* white ant sp. believed to cause weight loss

toɓírá- (toɓíró-oni-) *v.* to rush toward

tolép- (tolep-et-ésí-) *v.* to get more than others

tol-ésí- *v.* to pull up, pull off

tolí-óni- *v.* to creep

tolu-esí- (tolú-) *v.* to betray

tomalaɗoo- *n.* strep throat

tomuŋ-esí- (tomúŋ-) *v.* 1) to cut the ears 2) to break bread

tonok-esí- (tonók-) *v.* to sit, lean against

tonyám-óni- *v.* to stalk

toŋél-óni- *v.* to branch, fork

to(o)míní- *n.* ten

topét-óni- *v.* to slant gradually
 outwards (of horns)

topóɗ-óni- *v.* to talk to oneself
 when upset

topon-esí- (topón-) *v.* to notch
 animal ears

topút-ét-oni- *v.* to duplicate

torem-esí- (torém-) *v.* 1) to move
 forcefully 2) to brew

torik-ésí- *v.* to lead

toroɓó- *n.* breastbone

torón-óni- *v.* to fast from food

toróŋ-óm-oni- *v.* to have ridges

torop-esí- (toróp-) *v.* 1) to link,
 join 2) to move in single file

torú-óni- *v.* to sit with legs
 extended

toryáb-óni- *v.* to be in labor

toryóŋ-óni- *v.* to curve backwards
 (of horns)

tosíp-óni- *v.* 1) prance 2) to splash
 lightly (of rain)

totír-óni- *v.* to climb

totóo- *n.* maternal aunt

totok-esí- (totók-) *v.* to weave
 thread going up and down

totóti- *n.* his/her maternal aunt

totséɗ-óni- *v.* to creep up

totser-esí- (totsér-) *v.* to handle,
 manage

tots-et-esí- *v.* to grade, mark

totw-eesí- (totú-) *v.* to take evil
 charms out of the body

touk-esí- (toúk-) *v.* 1) to cut down
 2) to retch, gag

toúm-óni- *v.* to be amazed,
 awestruck

towát-és-úƙotí- *v.* to throw with a
 stick

towúry-án-oni- *v.* to lie down

towúts-óni- *v.* to crash through
 brush

toyó-ón-uƙotí- *v.* to heal up

tɔbɔŋɔ́- *n.* maize mush, 'posho'

tɔɓɛ́-ɔ́nɪ- *v.* to be exact, correct

tɔɓɛl-ɛsí- (tɔɓɛ́l-) *v.* to split

tɔɓɛ́ɲ-ɛ́t-ɔnɪ- *v.* to elicit a
 response, either good or bad

tɔɓɪl-ɛsí- (tɔɓíl-) *v.* to fold

tɔɓɔkɔ́- *n.* 1) piece of a broken pot
 2) frying pan

tɔɓɔ́rɔ́k-án-óni- *v.* to grow feathers

tɔ́ɗ-ɔ́nɪ- *v.* to be emaciated

tɔɗúp-ɔ́nɪ- *v.* 1) to dance toward
 s.b. 2) to follow in single file

tɔfɔ́ɗ-ɔ́nɪ- *v.* to ooze

tɔʝɛm-ɛsí- (tɔʝɛ́m-) *v.* to mock

tɔka- *n.* soft indentation between
 the collarbones

tɔkɛ́ɛ́r-ɔnɪ- *v.* to move in an
 orderly way, place to place

tɔkí-ɔ́nɪ- *v.* to confess

tɔkɔba- *n.* cultivation, agriculture

tɔkɔɗ-ɛsí- (tɔkɔ́ɗ-) *v.* to hold by
 the handle

tɔkɔɗíkɔ́ɗ-ɔnɪ- *v.* to have
    menstrual cramps

tɔk-ɔnɪ- *v.* to be tall, thin, straight

tɔkɔr-ɛsí- (tɔkɔ́r-) *v.* to distribute

tɔ́ƙ-ɛ́sɪ- *v.* to contribute to a cost

tɔƙɔtɔƙá- *n.* snail, slug

tɔlélí-ɔnɪ- *v.* to trickle

tɔlɔka- *n.* trapping

tɔlʊk-ɛsí- (tɔlúk-) *v.* 1) to encircle
    2) to summon to trial

tɔlúŋ-ɔ́n-ʊƙɔtí- *v.* to storm off
    after an argument

tɔmɛ-ɛsí- (tɔmɛ́-) *v.* to track

tɔmɛrímɛ́r-ɔnɪ- *v.* to suffer

tɔmɪn-ɛsí- (tɔmín-) *v.* 1) to love so
    much it hurts 2) to cause
    excruciating pain

tɔmɔr-ɛsí- (tɔmɔ́r-) *v.* to share

tɔmɔtsɔk-án-óni- *v.* to be bumpy,
    pimply (of skin)

tɔmúɗúŋ-ɛ́sí- *v.* to wind, roll up

tɔnʊp-ɛsí- (tɔnúp-) *v.* to believe

tɔɲílíɲíl-ɛ́sí- *v.* to dice up

tɔŋím- (tɔŋɪm-ɛt-ɛ́sí-) *v.* to give
    just a little bit

tɔŋɔl-ɛsí- (tɔŋɔ́l-) *v.* to slaughter

tɔ-ɔn-ʊƙɔtí- *v.* to set (of sun)

tɔɔs-ɛ́t-ɔnɪ- *v.* to be common

tɔɔsɔ́ŋ-ɔ́nɪ- *v.* to be afternoon

tɔpɪrípɪ́r-ɔnɪ- *v.* to rise in a
    circular motion (e.g. smoke)

tɔpɔɲɪpɔɲ-ɛsí- *v.* to make round
    (e.g. stone in sculpting)

tɔrɛ-ɛsí- (tɔrɛ́-) *v.* to coerce

tɔ́r-ɛ́sɪ- *v.* to do randomly

tɔ́rɔ́b-ɛsí- *v.* 1) to give gifts, esp. to
    newborn twins 2) to reward

tɔr-ɔ́d-ɔnɪ- *v.* to be compacted

tɔrɔmɪɲa- *n* porcupine

tɔrɔ́p-ɛ́t-ɔnɪ- *v.* to approach under
    cover

tɔsɛ-ɛt-ɛ́sí- *v.* to choose, prefer

tɔsés-ɔ́nɪ- *v.* to sin, err

tɔsɔ́ɗɔ́k-ɔnɪ- *v.* to be pounded into
    mush

tɔtá- *n.* 1) sisal plant waste, left
    over from rope making 2)
    cooked sour vegetables

tɔtsɛ-ɛsí- (tɔtsá-) *v.* to control

tɔtsɔ́-ɔ́nɪ- *v.* 1) to be careful 2) to
    be sensitive to light

tɔtsʊɗ-ɛsí- (tɔtsúɗ-) *v.* to pluck
    feathers or wool

tɔ́ts'-ɛ́sɪ- *v.* 1) to crush, pound
    with a stone 2) to tap a tree

tɔtʊn-ɛsí- (tɔtún-) *v.* to hug

tɔtúp-ɔ́nɪ- *v.* to be the next

tɔwat-ɛsí- (tɔwát-) *v.* 1) to
    sprinkle 2) to spy from afar

tɔw-ɔnɪ- *v.* to leak

tɔwʊrʊ́m-ɔnɪ- *v.* to incubate

tɔwʊ́t-ɔ́nɪ- *v.* to grow upward

tɔyɔ́-ɔ́nɪ- *v.* to bleed in a trickle

túb-esi- *v.* 1) to follow 2) to track

túbur-esí- *v.* to dig new ground

tuɓút-és-uƙotí- *v.* to shed

tude *quant.* five

tuɗ-ád-oni- *v.* to be leathery

tuɗúl-óni- *v.* to bow (i.e. head)

tuɗús-úm-oni- *v.* to be naked

tuf-ád-oni- *v.* to be spongy

tufúlá- *n.* field rat

tuka- *n.* feather

tukúɗ-óni- *v.* to be bent, crooked

tukukúɲ-óni- *v.* to have a sweet
　　smell and/or taste

túkulétí- *n.* small round gourd

tukut-esí- (tukút-) *v.* to dig out
　　(e.g. earwax or soil)

túkútuku- *n.* jigger, sand-flea

tulárói- *n. Commiphora* plant sp.

tuleli- *n.* 1) Sodom's apple
　　(*Solanum incanum*) 2) Dead
　　Sea fruit (*Calotropis procera*)
　　3) eggplant

tulí-án-et-oni- *v.* to be white with
　　black eye patches

tulúu- *n.* rabbit, hare

túmbaba- *n. Dolichos
　　kilimandscharicus* plant

túná- *n.* 1) flower bud 2) abscess

turu- *n.* tree sp. in whose shade
　　tobacco is planted

turu-esí- (turú-) *v.* to throw

turúj-óni- *v.* to be coiled

túrúƙuƙúu- *n.* red-eyed dove

turunetí- *n. Carissa edulis* tree

turún-óni- *v.* 1) to have a bowed-
　　over posture 2) to mourn

tus-úd-oni- *v.* to be blunt

tusúk-óni- *v.* to be curled up

tutúf- (tutuf-án-óni-) *v.* to show
　　signs of maturity

tutuk-ésí- *v.* to heap up

tuut-esí- (tuút-) *v.* to castrate

tʊɓʊn-ɛsí- *v.* to cover, suffocate

tʊɗʊt-ɛsí- (tʊɗút-) *v.* to solidify
　　(e.g. by stirring)

tʊfɛrɛkɛ- *n.* Black Jack weed
　　(*Bidens pilosa*)

tʊf-ɛsí- *v.* to sew

tʊkʊr-ɛsí- (tʊkúr-) *v.* to strip off
　　soft, green sisal bark

tʊkʊtʊk-ání- *n. Ipomoea spathulata*
　　plant

tʊlʊŋ-ɛsí- (tʊlúŋ-) *v.* to abhor

tʊmʊɗʊŋ-ɛsí- (tʊmúɗúŋ-) *v.* to
　　fold

tʊn-ɛsí- *v.* to pinch

tʊnʊk-ɛsí- (tʊnúk-) *v.* to bury

túsí- *n.* Klipspringer

tʊtsʊ-ɛsí- (tʊtsú-) *v.* to wring out

tʊtʊfa- *n. Combretium* tree sp.

tʊtʊk-ɛsí- (tʊtúk-) *v.* 1) to hem,
　　knit 2) to plait 3) to squeeze

túwá- *n.* 1) praying mantis 2) first
　　scoop of pounded white ants,
　　designated for an elder

tʊw-ɔnɪ- *v.* to germinate

túzʊɗ-ésí- *v.* to plug holes

túzʊŋ-ésí- *v.* to carry on the
　　shoulders

Tsts

tsá- (tsó-óni-) *v.* to be dry

tsábatsab-án-óni- *v.* to quiver

tsábo *adv.* apparently, obviously

tsafola- *n.* tree-bark rope

tsak-ád-oni- *v.* to be watery

tsakátsák-án-óni- *v.* 1) to be
    litered with sth. 2) to be
    insecure 3) to be pocked

tsak-ét-óni- *v.* to fall slowly

tsakúde- *n.* firestick

tsáƙól-óm-oni- *v.* to be long-
    legged, spindly; cf. *tsɔ́gɔr-*

tsala- *n. Capparaceae* plant sp.
    whose seeds are eaten

tsalɪtsál-ɔ́nɪ- *v.* to be wet, sticky

tsam-ɛ́sí- *v.* to like, love

tsaŋa- *n.* gap

tsáŋ-ési- *v.* 1) to annoint, smear 2)
    to paint

tsap-ésí- *v.* to brew

tsarátánɪ- *n.* mountain cleft

tsarió- *n.* weaverbird

tsar-ín-án-esi- *v.* to be hopeless

tsarúkú- *n.* oryx

tsaúɗ-ím-ɔnɪ- *v.* to be tall and thin

tsek-oni- *v.* 1) to be bushy, hairy
    2) to be full to the brim

tsereɗeɗíi- *n. Osyris abyssinica* tr.

tserékí- *n.* bone connecting big
    toe with ankle

tsɛɓɛ́k-ɛ́m-ɔnɪ- *v.* to chew half-
    cooked food

tsɛfa- *n.* bush cleared for
    cultivation

tsɛrɛkɛ́k-ɔ́nɪ- *v.* to be stiff

tsétá- *n.* bloody drainage

tsɛtsɛkʊ- *n.* 1) *Tarenna graveolens*
    tree 2) rib cartilage

tsiɓila- *n.* bird sp.

tsídz-esi- *v.* to carry

tsíɗ *quant.* all, whole

tsik-oni- *v.* to be startled

tsír-án-oni- *v.* 1) to hurt 2) to
    have varicose veins

tsitsa- *n.* hawk (esp. black kite)

tsitsik-esí- (tsitsík-) *v.* to roll

tsɪɪrí- *n.* narrow ridge descending
    like the rib of a mountain

tsɪkɔ́- *n.* tree sp.

tsɪpɪtsíp-ɔ́nɪ- *v.* 1) to make tiny
    bubbles 2) to be spotted

tsɪrɪmú- *n.* metal

tsír-ít-ɛt-ɛ́sí- *v.* to set upright

tsítsí- *n.* honey-guide (bird sp.)

tsɪtsíná- *n.* small stick tool (e.g.
    for getting honey from a
    gourd)

tsóɗitsónoó- *n.* bird sp.

tsoé- *n.* wild hunting dog

tsoi- *n.* season

tsokóbo- *n.* 1) bird sp. 2) game
    played by men

tsokolori- *n.* cylindrical gourd

tsokótsók-án-óní- *v.* to be a
    mixture of fat and meat

tsólé- *n.* bee-eater (bird sp.)

tsó-óni- (tsá-) *v.* to be dry

tso-oni- (tse-) *v.* to rise (of sun)

tsoriama- *n.* bird sp.

tsoriti- *n.* blood vessel

tsorokoníi- *v.* mosquito-like insect

tsówíri- *n.* speckled mousebird

tsɔ́gɔr-ɔm-onɪ- *v.* to be thin,
   weathered, and wiry

tsɔ́n-ɔ́nɪ- *v.* to squat

tsɔ́rá- *n.* baboon, gorilla

tsɔr-ɛ́sí- *v.* to bleed

tsɔ́ts-ɔ́nɪ- *v.* to have sharp eyesight

tsubá-án-et-oni- *v.* to have
   virginal breasts

tsúd-oni- *v.* to have well-endowed
   buttocks

tsuƙúl-úm-oni- *v.* to be deeply
   concave

tsulátí- *n.* tuft of hair or feathers

tsuta- *n.* tip of circular roof

tsútsá- *n.* fly

tsutsuk-esí- (tsutsúk-) *v.* 1) to rub
   with hands 2) to tan leather

tsuwaa- *n.* 1) run 2) race

tsúɓá- *n.* bird tail

tsuɓ-ɛ́sí- *v.* to sip

tsuɗutsuɗ-ɔsí- *v.* 1) squirm 2) to
   scope sth. out before stealing

tsúkuɗúɗ-ɔ́nɪ- *v.* 1) to shiver 2) to
   be shy 3) to move cautiously

tsumá- *n.* desert date (*Balanites
   aegyptiaca*)

tsʊrʊ́ɗ-ʊ́m-ɔnɪ- *v.* to be conical

tsʊ́ʊ́ra- *n.* white thorn acacia
   (*Acacia hockii*)

Ts'ts'

ts'áb-esi- *v.* to hate

ts'aɗí- *n.* fire

ts'afʊ- *n.* chewed chewing tobacco

ts'ága- *n.* dirt, filth, stench

ts'agúsé *quant.* four

ts'ágw-ooni- (ts'ágwa-) *v.* 1) to be
   raw 2) to be uncooked

ts'ál-ési- *v.* to remove to the side

ts'al-íd-oni- *v.* to be oily (of food)

ts'álób-i-esí- *v.* to touch sexually

ts'álúb-oni- *v.* to splash in water

ts'aní- *n.* louse, lice

ts'anání- *n.* crop-destroying insect

ts'e-oni- *v.* to be extinguished

ts'é-óni- *v.* to die (of many)

ts'ɛa- *n.* skin, hide

ts'íɗ-ɛ́t-ɔnɪ- *v.* to be the last

ts'ɪƙá- *n.* 1) bee 2) honey

ts'ɪnɔ- *n.* taboo against husbands
   of pregnant wives hunting

ts'írít-ɔnɪ- *v.* 1) to spit through gap
   in teeth 2) to spurt

ts'ír-ɔ́nɪ- *v.* 1) to be right, proper
   2) to be upright

ts'íts'-ɛ́sɪ- *v.* to track

ts'íts'-ɔ́nɪ- *v.* 1) to be sharp 2) to
   be greedy, jealous 3) to have
   unprotected sex

ts'oli- *n.* drop

ts'oɗiti-esí- (ts'oɗ-) *v.* to put in small quanties (dots or drops)

ts'ɔk-ɛ́sí- *v.* to mix honey with water until it is bitter

ts'ɔk̃ɔ́má- *n. Sclerocarya birrea* tree

ts'ɔlíl-ɔ́nɪ- *v.* to be watery

ts'úbu- *n.* grass sp.

ts'úde- *n.* smoke

ts'ʊ́ba- *n.* grass cover

ts'ʊ́bʊlátí- *n.* stopper, plug

ts'ʊf-ɔnɪ- *v.* to barely appear

ts'ʊ́gʊramá- *n.* medicinal tree sp.

ts'ʊn-ɛ́sí- *v.* to kiss

ts'ʊts'ʊʊ́- *n.* garbage, rubbish

ts'ʊ́ʊ́t-ɛ́sí- *v.* 1) to suck juicy fruit 2) to absorb 3) to make a sucking sound in derision

ts'ʊw-ɔnɪ- *v.* to go in and out in clumps or bunches

Uu

úde- *n.* kind of smooth grass

úg-esi- *v.* to dig

up-án-óni- *v.* to accompany

urémá- *n. Pentarrhinum insipidum* plant

urúrá- *n.* deep river or pool

ut-ésí- *v.* to blaze a trail

útɔɔ- *n.* liquid oil

Ww

wa- (we-esí-) *v.* to harvest

waa- *n.* greens, vegetables

wááka- *n.* game, playing

wáána- *n.* 1) asking, begging 2) prayer 3) religious service

waat-ɛ́sí- *v.* to soak in water

wád-oni- *v.* to boil, simmer

waínó- *n.* hunter's call for help in carrying meat home

wak-ésí- *v.* to break off (e.g. a tree branch or animal bone)

waláa- *n.* sorghum variety

wal-ám-óni- *v.* to get light (dawn)

walɪwál-ɔ́nɪ- *v.* to wave in wind

warɪwarí- *n. Dombeya quinqueseta* tree

was-ɔnɪ- *v.* 1) to stand 2) to be stationary 3) to be stagnant

wat-oni- *v.* to rain

wats'ɔ- *n.* rock-crevice beehive

waʃɪ- *n.* ahead, front

wázo- *n.* young female animal

wéés-án-óni- *v.* to be lazy

w-éési- (ó-) *v.* to call, name

weléwél-án-óni- *v.* to be brittle

weréts-óni- *v.* to cry out

wet-ésí- *v.* 1) to drink 2) to smoke, snuff tobacco

wɛɗɪwɛ́ɗ-ɔ́nɪ- *v.* to flutter

wɛɛn-ɔ́nɪ- *v.* to move fast

wɛ́k̃ɛ́kɪ- *n.* vine rope

wɛla- *n.* 1) narrow animal path 2) small gate 3) window

wɛrɛ́ʈ-ɛ́s-ɔnɪ- *v.* to get up quickly

wɛts'-ɛ́sí- *v.* to break off the edge

wídzo- *n.* evening

wicé- *n.* children; cf. *imá-*

wil-ím-óni- *v.* to have muscular aches and pains

wír-ési- *v.* to get from various places

witsiwíts-ét-oni- *v.* to get dark

wíziwiz-et-ésí- *v.* to scribble

wɪɗ-ɪɗ-án-óni- *v.* to clench in teeth

wɪl-ɔnɪ- *v.* to feel pain

wɪɲ-íd-ɔnɪ- *v.* to be syrupy

wízɪl-ɪl-ɔnɪ- *v.* to retch

wóroʈ-óʈ-óni- *v.* to dehydrate

wówój-ésí- *v.* to overfill

wuɗ-oni- *v.* to burn (e.g. food)

wuɟ-úd-oni- *v.* to be jiggly

wúrukuk-án-óni- *v.* to have birth contractions

wut-ésí- *v.* to trespass on the chance of not getting caught

wʊlók-óm-ɔnɪ- *v.* to be enthusiastic

Yy

yaŋ-ád-oni *v.* to be solid

yáɲi- *n.* my mother

yáyóo- *n.* your sister

yaʊyaʊ- *n.* stream

yeyáa- *n.* my sister

yeátí- *n.* his/her sister

yɛm-ɛ́d-ɔnɪ- *v.* to be delicate

yiɗí-íɗ-oni- *v.* to be eager to work

yum-úd-oni- *v.* to be soft inside

yu-úd-oni- *v.* to be soft (of soil)

yʊɛ́- *n.* lie, falsehood

yóʈ-ɔ́nɪ- *v.* to doubt

Zz

zaɗíɗ-ím-oni- *v.* to be arched

zamʊɟ-án-óni- *v.* to be wrinkly

ze- (zo-oni-) *v.* 1) to be big 2) to be old 3) to be in authority

zéb-esi- *v.* to throw overhand

zɛʈw-ɔnɪ- (zɛʈɔ-) *v.* 1) to sit, be seated 2) to stay, live

zíb-oni- *v.* to roam around idly

zikíb-oni- *v.* to be tall, long

ziláám-óni- *v.* to be exhausted

zítá- *n.* winnowing basket

zíz-oni- *v.* to be fat, healthy

zík-ésɪ- *v.* 1) to tie 2) to arrest

zɪnɔ́- *n.* zebra

zíz-ɛsɪ- *v.* to blame

zo-oni- *v.* to be big; cf. *ze-*

zɔɓat-i-esí- *v.* to whip two children at the same time

zɔta- *n.* chain

Ʒ ʒ

ʒaɓ-úd-oni- *v.* to be soft (e.g. mattress, ripe fruit, soil)

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Appendix C—Conjugations of Similar Verbs

ɪtɔ́ɔ́nɪ- (**ɪta**-) 'to reach'	*Present*	*Future*	*Imperative singular*
1SG	ɪtaí	ɪtɛɛsí	ɪtaᵋ
2SG	ɪtaídᵃ	ɪtɛɛsídᵃ	
3SG	ɪta	ɪtɛés	*Imperative plural*
1PL.EXC	ɪtaím	ɪtɛɛsím	ɪtayú
1PL.INC	ɪtaɪsín	ɪtɛɛsísɪn	
2PL	ɪtaítᵃ	ɪtɛɛsítᵃ	
3PL	ɪtaátᵃ	ɪtɛɛsátᵃ	

ɪtɛ́ɔ́nɪ- (**ɪtí**-) 'to delay'	*Present*	*Future*	*Imperative singular*
1SG	ɪtéí	ɪtɪɛsí	ɪtí
2SG	ɪtíídᵃ	ɪtɪɛsídᵃ	
3SG	ɪtí	ɪtɪɛs	*Imperative plural*
1PL.EXC	ɪtíím	ɪtɪɛsím	ɪtíyú
1PL.INC	ɪtíísɪn	ɪtɪɛsísɪn	
2PL	ɪtíítᵃ	ɪtɪɛsítᵃ	
3PL	ɪtíátᵃ	ɪtɪɛsátᵃ	

itíóni- (**ité**-) 'to go back'	*Present*	*Future*	*Imperative singular*
1SG	itéí	iteesí	ité
2SG	itéída	iteesída	
3SG	ití	itees	
1PL.EXC	itéím	iteesím	*Imperative plural*
1PL.INC	itéísin	iteesísin	itéyú
2PL	itéíta	iteesíta	
3PL	itíáta	iteesáta	

itétóni- (**it**-) 'to come back'	*Present*	*Future*	*Imperative singular*
1SG	itetí	itetésí	itete
2SG	itéída	itetésída	
3SG	itéta	itetés	*Imperative plural*
1PL.EXC	itetím	itetésím	itetú
1PL.INC	iteisín	itetésísin	
2PL	iteíta	itetésíta	
3PL	itetáta	itetésáta	

ɪtétónɪ- (**ɪt**-) 'to arrive here'	*Present*	*Future*	*Imperative singular*
1SG	ɪtɛtí	ɪtɛtésí	ɪtɛte
2SG	ɪtéída	ɪtɛtésída	
3SG	ɪtéta	ɪtɛtés	*Imperative plural*
1PL.EXC	ɪtɛtím	ɪtɛtésím	ɪtɛtú
1PL.INC	ɪtɛɪsín	ɪtɛtésísin	
2PL	ɪtɛíta	ɪtɛtésíta	
3PL	ɪtɛtáta	ɪtɛtésáta	

ítóni- (**ít-**) 'to be a certain size'	Present	Future	Imperative sg.
1SG	ítí	ítésí	—
2SG	ítíd^a	ítésíd^a	
3SG	ít^a	ítés	*Imperative pl.*
1PL.EXC	ítím	ítésím	—
1PL.INC	ítísin	ítésísin	
2PL	ítít^a	ítésít^a	
3PL	ítát^a	ítésát^a	

ít-ési- (**ít-**) 'to get a dead animal'	Present	Future	Imperative sg.
1SG	ítí	ítésí	ít^e
2SG	ítíd^a	ítésíd^a	
3SG	ít^a	ítés	*Imperative pl.*
1PL.EXC	ítím	ítésím	ítú
1PL.INC	ítísin	ítésísin	
2PL	ítít^a	ítésít^a	
3PL	ítát^a	ítésát^a	

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Subject Index

Samenvatting

Dit boek omvat een analyse van het Ik (Icé-tód), een Kuliak (Rub)-taal gesproken door 7500 mensen in noordoost Oeganda. Het levert een zo volledig mogelijke basisinventaris van de klank/vorm/betekeniseenheden die samen de grammatica van het Ik vormen. Het boek kan voortborduren op een solide traditie van vijftig jaar taalbeschrijving. Desalniettemin vult het een aantal belangrijke gaten op. De noodzaak voor een vollediger beschrijving is nijpend gezien het feit dat de twee andere leden van de subgroep, Nyang'ia en So/Tepeth, op het punt van uitsterven staan. Een tweede doel van deze studie is dan ook een precieze en adequate geschreven weergave te bieden van het Ik voor het geval, door de krachtige neiging tot assimilatie aan het Engels en de Teso-Turkana talen uit de Oost-Nilotische (Nilo-Saharaanse) taalfamilie, ook Ik verloren gaat. Een derde doel van deze studie is een duidelijker beeld mogelijk te maken hoe Ik gerelateerd is aan de andere talen in de regio, met name door parallellen voor te stellen voor de grammaticale morfemen van het Ik.

Hoofdstuk 1 begint met een korte inleiding over het Ik-volk, hun geschiedenis, de ecologie van hun leefgebied, economie, samenleving, godsdienst en cultuur. Hierop volgt een inleidend overzicht over de taal van de Ik, waarbij onderwerpen zoals de controverse rond de genetische classificatie aan de orde komen, maar die ook een typologische karakterisering van de taal geeft en onderwerpen als variatie, invloeden door taalcontact, etnolinguistische vitaliteit en eerdere publicaties over het Ik behandelt. Het hoofdstuk sluit af met een beschrijving van de methodologie, het veldwerk, de verzameling van de gegevens en hun beschikbaarheid, en tenslotte de spelling. Hieruit wordt duidelijk hoe het Ik dat lange tijd in haar bestaan bedreigd was maar toch kans zag voort te bestaan door aanpassing zonder zijn eigenheid op te geven.

Hoofdstuk 2 behandelt de segmentele fonologie. Hierbij komen de dertig contrastieve medeklinkers en de negen klinkers aan bod met hun allofonische realisaties zoals het stemloos worden van klanken in finale positie, assimilatie naar plaats van articulatie en glottale effecten. Bij de bespreking van lettergreepstruktuur wordt een onderscheid gemaakt tussen fonetische en fonologische lettergrepen om het stemloos worden klinkers voor een pauze te verklaren. Ten slotte behandelt het hoofdstuk morfofonologische regels zoals haplologie, ontwrijving, niet-finale deletie en klinkerharmonie. Dit laatste is een verschijnsel dat van belang is bij de morfologische analyse in alle onderdelen van de grammatica.

Hoofdstuk 3 over de suprasegmentele fonologie behandelt twee van de meest interessante verschijnselen: ATR klinkerharmonie en toon. De behandeling van de klinkerharmonie omvat de volgende onderwerpen: klinkerharmonie binnen de lexemen, waarbinnen de opake klinker /a/ soms als [-ATR] en soms als [+ATR] gespecificeerd dient te worden, dominante achtervoegels, inclusief opake, recessieve achtervoegsels, recessieve clitica en post-lexicale harmonie. De bespreking van toon in het Ik legt het fundament voor een begrip van het toonsysteem. De analyse gaat uit van twee tonen (hoog en laag) die vrijelijk combineren in alle lexicale eenheden. Deze tonen hebben contextuele varianten bepaald door depressor consonanten, morfologische conditionering en syntactische grenzen van zinsdeel en zin. Er wordt een lijst gegeven van tonale processen die relevant zijn voor de rest van de grammatica, gevolgd door een korte bespreking van de drie basale intonatiepatronen.

Hoofdstuk 4 geeft de basiseigenschappen van het naamwoord. De kenmerken van een lexicale wortel worden benoemd, aangevuld met opmerkingen over reduplicatie en archaïsche voorvoegsels. Daarna komen de strategieën aan bod om getal uit te drukken: singulatieven, pluratieven, suppletieve meervouden, possessieven, en naamwoorden die niet voor getal gemarkeerd zijn. Ik heeft een relatief arm systeem van nominale affixatie dat gecompenseerd wordt door de (voor)naamwoord - (voor)naamwoord-

samenstellingen die functies als agentief, verkleinwoord, interne en variërende meervoudigheid, en relationele locatieven uitdrukken. Op het eind van de hoofdstuk krijgt de lezer een overzicht over verwantschapstermen, persoonsnamen, namen voor volkeren en voor plaatsen.

Hoofdstuk 5 vervolgt met een beschrijving van de vele verschillende voornaamwoorden in de taal. Eerst behandel ik de persoonlijke voornaamwoorden, gebonden en vrije, dan het unieke bezittelijke onpersoonlijke voornaamwoord. Vervolgens komen de volgende voornaamwoorden in detail aan bod: onbepaalde, interrogatieve, aanwijzende, betrekkelijke, wederkerende, distributieve en aansporende voornaamwoorden, en tenslotte het zogenaamde "dummy voornaamwoord" dat vereist is ter vervanging van een perifeer zinsdeel dat verplaatst is.

Ieder naamwoord en voornaamwoord is verplicht gemarkeerd voor naamval. Dit wordt besproken in hoofdstuk 6. Dit hoofdstuk vormt de brug tussen de nominale woordsoorten en de andere woordsoorten omdat de naamvalmarkeerders zich in een grammaticaliseringsproces bevinden naar gebruik in andere onderdelen van de grammatica zoals het verbale systeem. Ik beschikt over een uitgebreid naamvallensysteem met acht naamvallen: obliek, nominatief, instrumentaal, ablatief, genitief, accusatief, datief, en copulatief. De naamvalsachtervoegsels met hun complexe allomorfie en hun semantische rollen worden uitgelegd in dit hoofdstuk. De mogelijke oorsprong van de naamvalsachtervoegsels en hun verdere grammaticalisatie komen eveneens aan bod.

Hoofdstuk 7 behandelt het werkwoord. Het hoofdstuk begint met een overzicht van de mogelijke segmentele en tonale stucturen van de werkwoordswortel. Vervolgens behandel ik de derivationele, directionele en subject-markerende achtervoegsels. Daarop volgt een discussie over modaliteit, die zich toespitst op het onderscheid tussen realis en irrealis, dat op de eerste plaats een vormelijke opdeling inhoudt en slechts ten dele een

semantische. Andere wijzes die behandeld worden zijn intentioneel, optatief, aanvoegend, negatie en imperatief. Op het terrein van aspect staan de sequentiële en simultane aspecten centraal, die beide veel voorkomen in de aaneenschakelijking van zinnen. Vervolgens worden de drie verschillende manieren beschreven waarop Ik een passief maakt, evenals de causatieve, mediale en wederkerige afleidingen. Ten slotte worden de bijvoeglijke achtervoegsels behandeld, de tijdsmarkeerders en de markeerders van epistemische bepaling.

Hoofdstuk 8 sluit de morfologie af met een presentatie van de overige woordsoorten. Deze omvatten kwantificeerders, demonstratieven, bijwoorden, conjuncties, voorzetsels, tussenwerpsels, ideofonen, en imperatieven gebruikt ten opzichte van kinderen. Daarna komen tijdsaanduidingen aan bod. Ten slotte worden begroetingen behandeld. Hoewel deze geen woordsoort op zichzelf vormen worden ze wel veelvuldig gebruikt, zijn retorisch van belang en hebben een ritueel karakter.

Hoofdstuk 9 maakt een begin met de analyse van de syntaxis van zinsdelen en zinnen. Eerst wordt de structuur van de naamwoordgroep uitgelegd, daarna de structuur van eenvoudige hoofdzinnen inclusief causatieve zinnen, zinnen met koppelwerkwoorden en zinnen met hulpwerkwoorden. Het omvangrijkste onderdeel van dit hoofdstuk is de bespreking van de structuur en functie van de vele soorten ondergeschikte zinnen die het Ik kent, met bijzondere aandacht voor zinnen zonder werkwoord, focus en topic constructies, vragen, complementzinnen, indirecte rede, constructies van vergelijking en negatie. Dit hoofdstuk vormt een eerste aanzet voor de verdere analyse van de syntaxis van het Ik.

Het tiende hoofdstuk overstijgt de grenzen van de zin en behandelt kort de strategieën om zinnen met elkaar te verbinden als toevoeging, tegenstelling of alternatief. Het hoofdstuk eindigt met een discussie van zinsaaneenschakeling. Ik maakt gebruik van sequentiële en simultane werkwoordsvormen om ketens van zinnen te creëren in een zogenaamd co-

subordinerend verband. Aangezien zinsaaneenschakeling een areaal kenmerk is (het komt ook in Oost-Nilotische talen voor) en steeds meer aandacht krijgt, zijn deze beschrijvende observaties over het Ik een relevante bijdrage.

De eerste appendix is een verzameling van vijf teksten in het Ik met interlineaire vertaling: "Vijanden", "Bijenteelt", "Specht", "Koning Leeuw", "Gezegden" waaronder enkele verboden en een tongbreker. De tweede appendix is een lexicon van Ik wortels. Ten slotte geef ik de vervoeging van zeven voorbeeldwerkwoorden.

Curriculum Vitae

Terrill Brian Schrock was born on August 12, 1980, in the small, southern railroad town of Atmore, Alabama, U.S.A. Though much of his childhood was spent in the American South, he also lived with his family among Bantu peoples on the shores of Lake Victoria in Tanzania, between 1987-89 and 1995-97. From 2000-2001, Terrill took part in a study-abroad program in Aktau, Kazakhstan, where he studied Kazakh and taught English. By 2003, he earned a BA degree in French and Russian languages from the University of South Alabama. In 2007, he completed an MA in Applied Linguistics from the Graduate Institute of Applied Linguistics in Grand Prairie, Texas. While working as truck-loader for UPS and an intern at the commercial translation firm RussTech Inc., Terrill joined Wycliffe Bible Translators and SIL in 2004. In 2008, he and his wife Amber were assigned by SIL to the Ik project in northeastern Uganda where they have been since, working in language development and healthcare. They are now the proud adoptive parents of two Ik/Karimojong girls, Lemu Immaculate and Kaloyang Mercy, and live with them by Timu Forest in Ikland at the edge of the Rift Valley.