A grammar of Ik (Icé-tód) : Northeast Uganda's last thriving Kuliak language

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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 *deƙu-* '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-k*^{a} '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#	→	[bîz̥ː]	'He presses (it).'
pul-a#	→	[pʊ̀l̥]	'He pierces (it).'
Imperative singular			
bíz-e´	→	[bîz̥ː]	'Press (it)!'
pul-e´	→	[pʊ̄l̥]	'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. *dúb-* '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'
ŋú-	'to be ground'
ŋʊ-	'to grind'

The last two verb roots in (3) are illustrated in the two sentences below:

(4) *Beɗa ceka ŋweesik.*

béɗ-á	cek-a	ŋʊ-ésí-k^{a}
want-REAL	woman-NOM	grind-INF-ACC

The woman wants to grind (grain).

(5) *Beɗa ŋama ŋweesik.*

béɗ-á	ŋám-á	ŋú-ésɪ-k^{a}
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 {-ésí-} 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*

ábʊk-	ábʊbʊk-ɔn	'to charge (of animals)'
	ábʊbʊk-és	'to scoop out'
dzɛr-	dzɛr-ɔn	'to tear off running'
	dzɛr-és	'to tear'
fút-	fút-ón	'to blow (intrans.)'
	fút-és	'to blow (trans.)'
ídz-	ídz-on	'to drain, emit'
	ídz-es	'to shoot'
ɨɟók-	ɨɟók-ón	'to drool'
	ɨɟok-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=d^{e}	(**eg-^{e})	'Put (it) (somewhere)!'
ŋaar-	ŋaar-ɛs-ɛ́=$d^{ɛ}$	(ŋaar-és-∅)	'Help (someone)!'
ma-	ma-é=d^{e}	(**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 (-k^{e}). But when used transitively, their Goal~Purpose is encoded with a direct object case: either nominative (1-2 person subject) or accusative (-k^{a}) (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-k^{e}	Dative	'He's coming home.'
	atsa zɛƙɔ́-k^{a}	Accusative	'He's coming to sit.'
ɪtá-	ɪtáá ńtí-k^{e}	Dative	'He's found them.'
	ɪtáá awá-k^{a}	Accusative	'He's reached home.'
ƙa-	ƙaá hoo-k^{e}	Dative	'He's going in the hut.'
	ƙaa rɔ́ƙɛ́sɪ-k^{a}	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	bízə̀-	'press'
	zízə̀-	'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	ákáf-	'yawn'
	ɛ́mít-	'wheeze'
HL	águɟ̀-	'gulp'
	íban-	'go later'

LL	emin-	‘pull’
	ɪtsʊm-	‘pierce’
LHL	erégə̀-	‘use’
	ɪlúzə̀-	‘feel sleepy’
LH	arút-	‘make sound’
	ɪdĩŋ-	‘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’
	ɔ́bə̀-	‘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	ɪ̌ɛ́ɓ-	ɪ̰ɛ́ɓ-	'be cold'
	ɪ̌ɔ́k-	ɪ̰ɔ́k-	'bear fruit'
L	ɪ̌ɛƙ-	ɪ̰ɛƙ-	'be far'
	ɪ̌ʊm-	ɪ̰ʊm-	'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: *tʊmʊ́dʊ̋ŋ-* ‘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	síkɔ́ɔ́r-	‘remove chaff with wind’
LLL	hakaik-	‘forget’
LHH	tɔkɛ́ɛ́r-	‘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’
	ɪmɔ́ɗɔ́r-	‘be sooty black’

(21) *VCVCV verb roots*

LHH	ikómá-	‘move quickly’
	ɪtɔ́ká-	‘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)bʊbʊʞ-	'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'
ʞɔ́ɗ-	'cry'	→	ʞɔ́ɗíʞɔ́ɗ-	'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	(ɪ́)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 $C_1V_1C_2$-ɪ-$C_1V_1C_2$ verb roots*

HL-H	ƙérɪƙér-	'be bitter'
	múlʊƙúƙ-	'feel nauseated'
	nérɪnér-	'sway'
LL-L	botibot-	'be nomadic'
	cɛmɪcɛm-	'be combative'
	mɔŋɪmɔŋ-	'be slanderous'
LL-H	ɓariɓár-	'be sour'
	kupukúp-	'get cloudy'
	ƙwadiƙwád-	'lessen little by little'

(32) *Reduplicated v-$C_1V_1C_2$-ɪ-$C_1V_1C_2$ 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)ɓʊrúɓúr-	'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'
taɟál-	-jal	'relinquish'
talák-	-lak-	'release'
tatsá-	-ca	'shine'
tawán-	-wan	'hurt'
torik-	-rik	'lead'
tɔɓɛ́l-	-bɛl	'split'
tɔɟɛ́m-	-jam	'despise'
tɔkí-	-kɪ	'confess'
tɔkɔ́r-	-kɔr	'distribute'
tɔmɔ́r-	-mɔr	'share'

tɔnúp-	-nʊp	'believe'
tɔŋɔ́l-	-ŋɔl	'slaughter'
tʊɓún-	-bʊn	'suffocate'
tʊlúŋ-	-lʊŋ	'abhor'
tʊnúk-	-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-
ɪdíŋ-	-dɪdɪŋ	'narrow'	tɔ/ta-
ɪlíɓ-	-lɪb-	'green'	tɔ/ta-
ɪkám-	-kop	'grab'	to-
ilúŋ-	-luŋ-	'pass'	to-
isúɗ-	-sud	'lie'	to-
item-	-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
ɪɓúŋ-	-bʊŋ	'hurry'	kɪ-
ɪɗaar-	-dar-	'ambush'	kɪ-
ɪɗíts-	-dɪc	'beat'	kɪ-
ɪɟúk-	-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-	-alɔlɔŋ	'worry'
ep-	-pɛr	'sleep'
ɟal-	-gel-	'differ'
luƙ-	-lik	'swallow'
nɛpéƙ-	-peg-	'argue'
ɲaŋ-	-ɲaŋ	'avenge'
ŋábɓ-	-nap	'wear'
ŋwaʃ-	-ŋwal	'be lame'
rɔ́t-	-rɔt	'spy out'
taats-	-tac	'pay'
tábɓ-	-tap	'touch'
takán-	-takan	'appear'
túbɓ-	-tʊp	'follow'

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
#ɟ	↔	#g
ƙ#	↔	g#
ƙ	↔	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-/	águɟ-	'gulp'
	áƙáf-	'yawn'
	alóló-	'hold by handle'
	arút-	'make a sound'
	asínít-	'dream'

/ɛ,e-/	emin-	‘pull’
	erégə̀-	‘use’
	erúts-	‘new’
	eset-	‘ask’
	ɛ́mít-	‘wheeze’
/ha-/	hakaik-	‘forget’
	hákát-	‘be boastful’
	hamʊɟ-	‘grind finely’
/tɛ,te-/	tébin-	‘lean on’
	terégə̀-	‘work’
	tetíŋ-	‘be thick’
	tɛwɛ́-	‘broadcast seed’
	tɛ́zɛɗ-	‘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
{-ɛ́sí-}	INF	Transitive	§7.2.2
{-ási-}	ABST	Abstractive	§7.2.3
{-amá$^{+}$-}	PAT	Patientive	§7.2.4
{-Vƙ-}	SUB	Substantive	§7.2.5
{-nanesi-}	BHVR	Behaviorative	§7.2.6
{-ɔ́sí-}	PASS	Passive	§7.8.2
{-ínɔ́sí-}	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-ʊƙɔt*^{a} '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-uƙot^{a}	'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’	ƙám-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’
	ɗɔƙ-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-k^{a}	bot-oni-a	bot-oni-k^{a}
DAT	bʊr-ɔnɪ-ɛ	bʊr-ɔnɪ-k^{ɛ}	bot-oni-e	bot-oni-k^{e}
COP	bʊr-ɔnɔ-ɔ	bʊr-ɔnʊ-k^{ɔ}	bot-oni-o	bot-onu-k^{o}

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 *-ɛɛðɪ:t* 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-ukot$^{a´}$	‘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-ésɪ-	‘to shave’	ɗóɗ-ési-	‘to point’
	hɔ́n-ésɪ-	‘to drive’	séɓ-ési-	‘to sweep’
	kɔ́ŋ-ésɪ-	‘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	ɓan-ésí-	‘to sharpen’	dim-ésí-	‘to refuse’
	ɗɔts-ésí-	‘to add’	fur-ésí-	‘to scavenge’
	ɲɛɓ-ésí-	‘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-ɛś	[āŋ̄ır̄ēs]	‘to turn’
gɛfɛ́r-ésí-	→	gɛfɛr-ɛś	[gɛ̄fɛ̄r̄ēs]	‘to stab’
iɓók-ésí-	→	iɓok-eś	[īɓ̄ōkēs]	‘to shake’
tatsáɗ-és	→	tatsaɗ-eś	[tātsāɗ̄ēs]	‘to break away’
tsitsík-ésí-	→	tsitsik-eś	[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-kᵉ	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 ityoonuƙota 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 *-sɪ̰* (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-ásí-	'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'
ɪɛ̰ƙ-ɔnɪ-	'to be far'	→	ɪɛ̰ƙ-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 *-sɪ̰* 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-ásí-* 'fear, timidity':

(54) *Case declension of {-ásí-}*

	Non-final	Final
OBL	ʃɛɓ-ásí	ʃɛɓ-ás
NOM	ʃɛɓ-ás-á	ʃɛɓ-ás-∅
INS	ʃɛɓ-ás-ɔ́	ʃɛɓ-ás-ᵓ
ABL	ʃɛɓ-ásɔ́-ɔ	ʃɛɓ-ású-∅
GEN	ʃɛɓ-ásí-ɛ	ʃɛɓ-ásí-∅
ACC	ʃɛɓ-ásí-a	ʃɛɓ-ásí-kᵃ
DAT	ʃɛɓ-ásí-ɛ	ʃɛɓ-ásí-kᵉ
COP	ʃɛɓ-ásɔ́-ɔ	ʃɛɓ-ású-kᵓ

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'
dzígw-es	'to sell'	→	dzígw-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'
ŋʃ-és	'to eat'	→	ŋʃ-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'
ılır-amá-	'food without gravy'
ɟul-amá-	'chunks of leftover meat'
ʃɛʃɛr-amá-	'mixture of honey and pounded white-ants'
tɔʃ-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’
kíɓɛ́z-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 *ŋk-amá-* ‘eatable thing’:

(58) *Case declension of {-amá-}*

	Non-final	Final
OBL	ŋk-ama	ŋk-am´
NOM	ŋk-am-a	ŋk-am-∅´
INS	ŋk-am-ɔ	ŋk-am-$^{w´}$
ABL	ŋk-amó-ó	ŋk-amá-^{o}
GEN	ŋk-amé-é	ŋk-amá-^{e}
ACC	ŋk-amá-á	ŋk-amá-k^{a}
DAT	ŋk-amé-é	ŋk-amá-k^{e}
COP	ŋk-amó-ó	ŋk-amá-k^{o}

7.2.5 Substantive

The rare suffix {-VƙV-} 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 {-VƙV-} 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 {-VƙV-}*

Verb			Deverbal noun	
ɗas-	'to be flat'	→	ɗas-oƙo-	'flatland'
ŋƙ-	'to eat'	→	ŋƙ-áƙá-	'food'
Noun			**Denominal verb**	
ets'í-	'feces'	→	nts'-áƙá-	'to defecate'
kwatsí-	'urine'	→	kʊts-áƙá-	'to urinate'

The data in (59) show that in its verbalizing function, {-VƙV-} accompanies some morphological variation, i.e. /e/→/n/ in *nts'-áƙá-* 'feces' and /w(a)/→/ʊ/ in *kʊts-áƙá-* '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 *-VƙV* 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 -VƙV-*

bɔrɔƙɔƙɔ́-	'tobacco cone'
karoƙo-	'burnt land'
ɔfɔrɔƙɔ́-	'dry honeycomb'
tʊfɛrɛƙɛ-	'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'
ẹ̱akwá-	'man'	→	ẹ̱akwá-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-nánesi-	'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-ʊkɔt[a]	'to go there'
raɟ-	'return (trans.)'
raɟ-és	'to return'
raɟ-et-és	'to return here'
raɟ-és-úkot[a]	'to return there'

7.4.1 Andative

The suffix {-ʊkɔtí-} 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 /-ʊk-/ within {-ʊkɔtí-} calls to mind the substantive suffix {-VkV}, 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-ʊkɔ́-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 *ŋʊr-és-ʊ́kɔt*^{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-ʊ́kɔ́-ɛsɛ* 'And it was driven away.' In terms of vowel harmony, the andative has the allomorph /-ukotí-/ after [+ATR] stem. In a verb infinitive, {-ʊkɔtí-} 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 {-ʊkɔtí-} within a verb*

ár-ón-ukot^{a}	ár-úkot-on	'to cross over'
ep-on-ukot$^{a'}$	ep-ukót-on	'to lie down'
ŋʊr-és-ʊ́kɔt^{a}	ŋʊr-ʊkɔt-és	'to cut'
itútú-és-ukot^{a}	itútú-úkot-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 {-ʊkɔtí-}*

ár-ón	'to cross'	→	ár-ón-ukot^{a}	'to cross over (away)'
bʊr-ɔn	'to fly'	→	bʊr-ɔn-ʊkɔt^{a}	'to fly away'
hɔn-és	'to drive'	→	hɔn-és-ʊ́kɔt^{a}	'to drive away'
raɟ-és	'to return'	→	raɟ-és-úkot^{a}	'to take back'
zéb-es	'to toss'	→	zéb-es-ukot^{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 {-ésí-} and case suffixes. (65) depicts the full case inflection of the verb *bʊr-ɔn-ʊkɔt*^{a} 'to fly away':

(65) *Case declension of {-ʊkɔtí-}*

Case	Non-final	Final
OBL	bʊr-ɔn-ʊkɔtɪ	bʊr-ɔn-ʊkɔtʲ́
NOM	bʊr-ɔn-ʊkɔt-a	bʊr-ɔn-ʊkɔt-ᵃ́
INS	bʊr-ɔn-ʊkɔt-ɔ	bʊr-ɔn-ʊkɔt-ᵓ́
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-kᵋ
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-ᵃ́	'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-ɛ́	'Drive away!'
SPS	hɔn-ʊ́ƙɔ́-ɛsɛ	hɔn-ʊ́ƙɔ́-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-ɛ́t-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, /-ɛ́t/ 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-ɛ́t-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'
raʝ-ésí-	'to return'	→	raʝ-et-ésí-	'to return here'

Because verbs like *dʊ̀r-ɛt-ésí-* ‘to pull out’ pattern tonally with L-toned verbs like *ɪdàk-ésí-* ‘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-ine´* ‘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-ési- ‘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-a´
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-ési- ‘to grab’	ŋus-et-ési- ‘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-a´
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-é-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-é-ɛsɛ	hɔ́n-é-ɛś	'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) *Sabukotataa Fetiicek.*
sáɓ-úkot-át-a-a fetí-ícé-k[a]
kill[PL]-COMP-3PL-REAL-PRF sun-AGT.PL-ACC
They have killed the Jie ('sun people', i.e. from the East).

(73) *Sabukotataa nta Fetiicek.*
sáɓ-úkot-át-a-a ńt-á fetí-ícé-k[a]
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 sabukotatie Fetiicek,...*
na=gwágwa-icé-á sáɓ-úkot-áti-e fetí-ícé-k[a]
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) *Sabukotaa Gwagwaika Fetiicek.*
sáɓ-úkot-á-á gwágwa-ik-a fetí-ícé-k[a]
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 *kɔ́rɔ́bádɪ-* 'thing'—*kúrúɓádi-* '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 ŋjini.*

tód-a = [ni	ƙám-át-a	ɗì-é	ŋjíní-∅]$_{\text{REL}}$
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 {=ˊdɛ} 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 =ˈ*dɛ́ɛ́* 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 {=ˊdɛ} 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 {=ˊdɛ} 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 {=ˊdɛ} 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 /=ˊde/ 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 [t̪ɛ̯]/[t̪˺]
	=ˊe	=ˊdᵉ [t̪e̯]/[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-∅	{=´dɛ}→/=´e/
PST3	be-IPS-REAL=DP	reedbuck-DAT	red-REAL	

When people were at Red Reedbuck,…

(86) *Naiƙotinii ɗemus.*

na-ɪƙɔt-ɪní=ɪ	ɗɛmʊs		{=´dɛ}→/=´ɪ/
get.used-COMP-SEQ=DP	fast		

So they get used to it quickly.

(87) *Toɗoini ɲapanƙaik.*

toɗ́ó-íní=i	ɲápaŋƙá-ik-°		{=´dɛ}→/=´i/
start-SEQ=DP	machete-PL-INS		

And they fell on him with machetes.

(88) *J'ɇjiakoo ɟa nk.*

jɛɟ-ɪa-kó=o=ɟa	ŋk-[a]		{=´dɛ}→/=´ɔ/
stay-1SG-SEQ=DP=ADV	I-NOM		

So then I stayed there.

(89) *Ƙeesukoo ɟa roɓa budesik.*

ƙe-ésú-kó=o=ɟa	roɓ-a	bud-ésí-k[a]	{=´dɛ}→/=´o/
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) *Ntsuo naa imoɗiade bik.*

ntsú-ó=naa	ɪmɔ́ɗ-í-a=de	bi-k[a]	(**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[o´]
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$^{o\prime}$	'And you come/came.'
Simultaneous	ats-ídi-k^{e}	'As/when you come/came,'
Optative	ats-idi´	'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 2SG 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 [IRR], 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-2SG[IRR]

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: *Ɗemʊsʊ atsid.*
ɗɛmʊsʊ ats-íd^{i}
before come-2SG.SUBJ[IRR]
Unless/until you come.

(101) Sequential: *Atsiduk.*
ats-idu-k$^{o´}$
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-ᵒ
come-2SG-REAL home-ABL
You come from home.

(104) Past: *Atsida noo awao.*
ats-íd-a = noo awá-ᵒ
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-k[a]
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-k[a]
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 = nak[a]
come-1SG-REAL = PST1
I came earlier today.

(110) *Atsesia nak.*
ats-ɛ́s-í-a = nak[a]
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 kɨjak.*
ats-és-í-a kíɣá-k^{e}
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 = bats^{e}
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→V˝	$V_{[+\text{voice}]}\#$	-ɪnɛ́
2SG	V́→V˝	$V_{[+\text{voice}]}\#$	
3SG	V́→V˝	$V_{[+\text{voice}]}\#$	
1PL.EXC	V́→V˝	$V_{[+\text{voice}]}\#$	-ɪmá
1PL.INC	V́→V˝	$V_{[+\text{voice}]}\#$	-anó
2PL	V́→V˝	$V_{[+\text{voice}]}\#$	
3PL	V́→V˝	$V_{[+\text{voice}]}\#$	

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 {-ɪnɛ́} and {-ɪmá} are susceptible to vowel harmony when affixed to [+ATR] stems. The suffix {-anó}, 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-és* 'to build':

(114) *Optative mood paradigm*

	‘blow’	‘build’
1SG	fút-íne´	bɛr-ınɛ´
2SG	fút-ídi´	bɛr-ıdı´
3SG	fút-í	bɛr-ı´
1PL.EXC	fút-íma´	bɛr-ıma´
1PL.INC	fút-áno´	bɛr-ano´
2PL	fút-íti´	bɛr-ıtı´
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 *alákɛ́*), 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-áti´ talák-é kɔŋ-átí=i tɔbɔŋᵊ´
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 todoi.*
talák-é dáŋá-didí todó-i´
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, *talákẻ* 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-kᵊ´
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 ɲemelekʉ awoo ne.*
tɛ́b-ɛt-ɪnɛ ɲɛ́mɛlɛkʉ́ awʉ́-ʉ́=ne
get-VEN-1SG[OPT] hoe[OBL] home-ABL=MED.DEM.SG
Let me get a hoe from that home.

(122) *Kone sabak.*
ƙʉ́-ne saba-k^{e}
go-1SG[OPT] river-DAT
Let me go to the river.

The 1PL.INC optative, marked with the invariable suffix {-anʊ́}, 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) *Idĩmano ɲamiili na.*
ɪdɪm-ano ɲámɪɪlɪ=na
fix-1PL.INC[OPT] bicycle[OBL]=DEM.SG
Let's fix this bicycle.

(124) *Atsʉo ƙaano beɗetano ƙaƙaaƙo.*
ats-úó ƙá-áno bɛ́ɗ-ɛ́t-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^{ɪ}
2SG	fút-ídi	fút-íd^{i}	bɛr-ídɪ	bɛr-íd^{ɪ}
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^{ɪ}
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-íkw-éɛse cu-a [ɗɛmʊsʊ fetí-á pɛlɛ́m-ɛ́t-ɪ]$_{\text{SUBORD}}$
sprinkle-AND-SPS water-NOM before sun-ACC appear-VEN-3SG[SUBJ]
And water is sprinkled before the sun comes up.

(127) *Ɗemusu Pakoicea deti riyaa,*
[ɗɛmʊsʊ pakó-íce-a det-i rié-á]$_{\text{SUBORD}}$
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 mituƙoti dî ɦyoos.*
damu soréím-a = na mɪt-ʊƙɔt-ɪ dɪ 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-k^{e}
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 /-e´/ 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-$^{e´}$	ats-e	naí-é=na
come-IMP.SG	come-IMP.SG	here-DAT=DEM.SG
Come.	Come here.	

(131) *Atsu.* *Atsuo nayee na.*

ats-ú^{o}	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 dî nak.*

ƙái-d-e-e	dɪ=nák^{a}
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 *ƙáidetine´* ‘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 {=´dɛ} can follow them:

(134) *Irimitete nc.*
ɪrím-ít-ɛt-é́ 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.*
ɻ̂án-ɔ́ɔ́=dᵋ
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-keé́
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-k^{e}
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

(§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 {-ɪnɪ} 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 /ɪ,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 /-kᵊ/, /-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 *-ʊkᵊ* or *-ukᵒ*. But in this grammar, the form *-ʊkᵊ* or *-ukᵒ* is analyzed as made of the underlying 3SG suffix {-ɪ-} 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-kᵒˊ	bɛr-ɪa-a	bɛr-ɪa-kɔˊ
2SG	fút-ídu-o	fút-ídu-kᵒˊ	bɛr-ɪdɔ-ɔ	bɛr-ɪdʊ-kɔˊ
3SG	fút-ú-o	fút-ú-kᵒ	bɛr-ɔ-ɔ	bɛr-ʊ-kɔ
1PL.EXC	fút-íma-a	fút-íma-kᵒˊ	bɛr-ɪma-a	bɛr-ɪma-kɔˊ
1PL.INC	fút-ísini-o	fút-ísinu-kᵒˊ	bɛr-ɪsɪnɔ-ɔ	bɛr-ɪsɪnʊ-kɔˊ
2PL	fút-ítu-o	fút-ítu-kᵒˊ	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 *sʊɓánídio* ~ *sʊɓánídʊo* '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) *Kɨdzesoo bia kwaeo, ceiɦotuk.*

ɦídz-ɛs-ɔ-ɔ	bi-a	kwaɛ̌-ᵊ	cɛ-ɪɦɔ́t-ʊ-kᵊ
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 ɦanaa ɲarema birayoo, maraŋa ɦanak.*

na = ɦánaa	ɲárɛ́m-a	bɪra-ɪ-ɔ́ɔ́	maráŋ-á	ɦanak[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-[e´]
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} (/-esé/ 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 /-ɪkᵋ/ 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 /-ɪkᵋ/ 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 /-kᵋ/ 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 {=ˊdɛ}. 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-kᵋ
2SG	fút-ídi-e	fút-ídi-kᵉ	bɛr-ídɪ-ɛ	bɛr-ídɪ-kᵋ
3SG	fút-í-e	fút-í-kᵉ	bɛr-ɪ-ɛ	bɛr-ɪ-kᵋ
1PL.EXC	fút-ími-e	fút-ími-kᵉ	bɛr-ímí-ɛ	bɛr-ímí-kᵋ
1PL.INC	fút-ísini-e	fút-ísini-kᵉ	bɛr-ísínɪ-ɛ	bɛr-ísínɪ-kᵋ
2PL	fút-íti-e	fút-íti-kᵉ	bɛr-ítí-ɛ	bɛr-ítí-kᵋ
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-k*^{e} 'raining' comes after the main clause it modifies:

(151) *Naa iryametanie gwasak, ŋweese ɲaɓalaŋit.*

náa	iryám-ét-aní-ɛ	gwasá-k^{e}	ŋʊ-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 'Kae'.*

kɔŋ-ésí-a	ŋáb-ʊƙɔtɪ-ɛ	kʊt-ɪnɪ	ƙa-$^{e\prime}$
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	ódo^{u}	didi-a	wat-i-k^{e}
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-k^{e}
go-3SG-SEQ home-DAT
And he goes/went home.

(158) *Keesuo awak.*
ƙe-es-ú-o awá-k^{e}
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-ᵉ
come-PLUR-3PL-REAL=PST3 buying-ACC tobacco-GEN
They used to come to buy tobacco,

iyesini tumede.
i-és-íni tumɛˈdɛ́-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 kíɟá ɲjíní-∅
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 gaanaaƙotat 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-és-ɔ́-ɔ didi-a wat-ᵊ
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 *bɛk-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 *ılé-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'
ɦiyɛn-ét-ɔ́n	'to vomit'
ıdım-ɛt-és	'to make'
ıwír-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'
zık-ɛt-és	'to tie up'

For some such examples, a directional meaning can be imagined, like for *ɦiyɛn-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 {-ét-}, 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, {-ét-} 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 {-ét-}*

ǎĕ-on	'to be lit'	→	ǎĕ-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-ɛ́t-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 *-ɯn*, e.g.:

(167) *Invariably inchoative verbs*

iryám-ét-on	'to get'	(Teso-Turkana *a-ryam-ɯn*)
itúm-ét-on	'to spend time with'	(Teso-Turkana *aki-tum-ɯn*)

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'
idîk-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 tɛ́z-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 = ˈdíí cɪkámá-k[e]
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 {-ɛ́t-}, though neither a venitive nor an inchoative interpretation makes much sense of it. Take the following, for example:

(171) *The suffix {-ɛ́t-} 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—{-ʊkɔtí-}—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, {-ʊkɔtí-} 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 {-ʊkɔtí-}:

(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 {-ʊkɔtí-} from the aspectual use. However, this is not always the case, for example with a verb like *ŋáɲ-és-ukot*^{a} 'to open up'. Does the suffix {-ʊkɔtí-} 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-uƙot*^{a} 'to become bad' (Heine & König 1996:96):

(174) *Aspectual usage of {-ʊƙɔtí-}*

ǎĕ-on	'to be ripe'	→	ǎĕ-on-uƙot$^{a\prime}$	'to ripen (up)'
bad-on	'to be dead'	→	bad-on-uƙot$^{a\prime}$	'to die (off)'
ep-on	'to sleep'	→	ep-on-uƙot$^{a\prime}$	'to fall asleep'
kɔk-ɛ́s	'to shut'	→	kɔk-ɛ́s-úƙɔt$^{a\prime}$	'to shut (out)'
ŋííɗ-ɛ́s	'to rub'	→	ŋííɗ-ɛ́s-úƙɔt$^{a\prime}$	'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-uƙot$^{a\prime}$	'to stick sth. in'
ɗɔƙ-ít-és-ʊƙɔt$^{a\prime}$	'to make sth. wet'
ep-ít-és-uƙot$^{a\prime}$	'to put down to sleep'
ts'íts'-ít-és-ʊƙɔt$^{a\prime}$	'to sharpen up'

The following sentences illustrate the completive in discourse context:

(176) *Isiamoo kawuƙota rɨ̨aa nci?*

isi-amo-o	kaw-uƙot-a	ríɲá-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-k^{e}	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'alanuƙoidak.*
ɟalan-uƙó-íd-a-k^{a}
different-COMP-2SG-REAL-PRF
You've become different.

(181) *Dubak! Dubak! Dubak!*
dúb-a-k^{a} dúb-a-k^{a} dúb-a-k^{a}
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 *ƙóíak^{a}* 'I have gone' rather than *ƙeésí* '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 *ƙóíak^{a}* 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 *atsíak^{a}* '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' → *Kodîya ɟiik.*
ƙoɗ-í-á ɟíik^{i}
cry-PLUR-REAL always
She's always crying.

(183) ɪnɔ́m- '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	ɲárém-a	bɪra-í-ɔ́
CONJ = COND	insecurity-NOM	lack-3SG-SEQ

ƙaiisina ƙanak.

ƙa-í-ísin-a	ƙanak[a]
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
{-ɔ́sí-}	PASS	Passive	§7.9.2
{-aní-}	IPS	Impersonal passive	§7.9.3
{-ɛsɛ́}	SPS	Sequential impersonal passive	§7.9.4
{-V́m-}	MID	Middle	§7.9.5
{-ínɔ́sí-}	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 {-ʊkɔtí-} and inchoative {-ét-} suffixes:

(189) *Derived causative verbs*

Intransitive			
cɪ-ɔn	'to be satiated'	cɪ-ɪt-és-ʊkɔtᵃ́	'to satiate'
do-on	'to be nice'	da-it-eś	'to make nice'
ep-on	'to sleep'	ep-ít-és-ukotᵃ́	'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-és	‘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-uƙot[a´]	‘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 *ɪtíŋ-* ‘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.*
ɪtíŋ-íd-a ŋk-a ƙo-oni-k[e]
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 *béd-* ‘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.*
bɛ́ɗ-á ɲci-a ƙo-íí-k^{e}
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 {-ɔ́sí-} (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 {-ɔ́sí-} 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 {-ɔ́sí-} is analyzed in this grammar as a morphological passive. A potential etymological parallel for it is the Surmic language Didinga's passive suffix *-ooðık* (De Jong 2004:150). It also does not seem coincidental that {-ɔ́sí-} closely resembles {-ɛ́sí-}, the Ik transitive nominalizer. Indeed, {-ɔ́sí-} 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 *tə́b-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-ésí-	'to join'	→	ɗɔts-ɔ́sí-	'(to be) joined'
ılam-ɛsí-	'to curse'	→	ılam-ɔsí-	'(to be) cursed'
ŋáɲ-ésı-	'to open'	→	ŋáɲ-ɔ́sı-	'(to be) opened'
tsáŋ-ési-	'to annoint'	→	tsáŋ-ósi-	'(to be) annointed'

The passive suffix is found with both unaccusative verbs like *kɔ́k-* 'close' and highly transitive verbs like *ŋ́k-* 'eat':

(195) *Kokosa asak.*
kɔk-ɔ́s-á asak-ª
close-PASS-REAL door-NOM
The door is closed.

(196) *Nkosa tobоŋ.*
ŋ́k-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=d^{e}
what-COP door-ACC close-PASS-REAL=DP
Why is the door closed?

(198) ***Isio kokosee asakak?*
**isi-o kɔk-ɔ́s-ɛ́=ɛ asaka-k^{a}
**what-COP close-PASS-REAL=DP door-ACC
**Why is the door closed?

(199) *Isio toboŋoa nƙosad?*
isi-o tɔbɔŋɔ́-á ŋƙ-ɔ́s-á=d^{e}
what-COP posho-ACC eat-PASS-REAL=DP
Why is the posho eaten?

(200) ***Isio nƙosee toboŋok?*
**isi-o ŋƙ-ɔ́s-é = ɛ tɔbɔŋɔ́-k[a]
**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$_O$ ɟíik[i]
follow-PLUR-2SG-REAL I-NOM always
You always follow me.

(202) *Tubosiida nka ɟiik.*
túb-os-i-íd$_A$-a ŋk-a$_O$ ɟíik[i]
follow-PASS-PLUR-2SG-REAL I-NOM always
You always make a point of following me.

(203) *Ɓeɗetia naa bia baratso nak.*
bɛ́ɗ-ɛ́t-í-a = naa bi-a barats-o = nák[a]
want-VEN-1SG-REAL = PST1 you.SG-NOM morning-INS = DEM.SG.PST1
I looked for you this morning.

(204) *Ɓeɗetosia bia napei nak.*
bɛ́ɗ-ɛ́t-ɔ́s-í-a bi-a napei = nák[a]
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	
bɛƙ-ɛ́s	'to walk'	→	ɓɛƙ-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-k^{a}]$_{CC}$
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=d^{e}]$_{CC}$
**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-k^{e}
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-ét-aní-é ntsí-k^{a}
not-REAL=PST3 be-3SG catch-VEN-IPS-SIML s/he-ACC
He wasn't there when he was caught.

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=d^{e}* '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 enukweese bi, ceikweese bi.*

na=en-úkó-esé	bi-∅	cɛ-íkɔ́-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 lodîwei.*
ƙe-ese wa-a lódʼíwéí-∅
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) *Itsuŋƙweese rɨjika tokobimak.*
ɪtsúŋ-ƙɔ-ɛ̱sɛ rɨ́ʝ-ík-a tɔkɔ́b-ɪma-kᵒ´
burn-COMP-SPS forest-PL-NOM cultivate-1PL.EXC-SEQ
The forest areas are burned, and we cultivate,

tokobeese edʼ, dwaanetimak,
tɔkɔ́b-ɛ-ɛ̱sɛ edʼ-ᵃ dʼwaan-ɛ́t-ɪma-kᵓ´
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 dîpook, berukweese lodʼuru.
ip-ɛ̱se dʼípɔɔ-kᵉ bɛr-úƙɔ́-ɛ̱sɛ lódʼúrú-∅
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-ét-ɪa-kɔ́=ɔ	rágw-[a]	cɛ-íƙɔ́-ɛsɛ́=d[ɛ]
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-ét-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) *ŋjurumaa dakw.* MIDDLE
ŋʊr-ʊ́m-á-a dakw-[a]
break-MID-REAL-PRF tree-NOM
The wood has broken.

(222) *ŋjuraa kona amee dakuk.* TRANSITIVE
ŋʊr-á-á kɔn-a ámé-e dakú-k[a]
cut-REAL-PRF one-NOM person-GEN tree-ACC
Someone has broken the wood.

(223) *ŋjuraa dakwa asik.* REFLEXIVE
ŋʊr-á-á dakw-a así-k[a]
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-és	'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-és	'to open'	→	ŋáɲ-ám-on	'to open'
ŋʊr-és	'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 = nak[a]
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-* (*mɪt-* 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) *Inaƙwiimetaa tokoba kainiko ni.*
ináƙwí-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-k[a]
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 reciprocial on verbs with different valencies:

(231) *Derived reciprocal verbs*

Transitive verbs (A + O → S)	
én-ímósí-	'to see each other (i.e. visit)'
fiye-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)	
ɓɛkés-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 *fiyeínós*: Formed by the verb *fiye-* 'know' and the reciprocal suffix, this verb stem means 'relative'. But even it can function as a noun or verb, as in *fiyeínósím* 'We know/are related to each other'.

Some examples of the reciprocal in natural discourse include the following:

(232) *Iritsinosu.*
ɪríts-ínɔ́s-ó
keep-RECIP-IMP.PL
Take care of each other.

(233) *Enimosined.*
én-ímós-íné = dᵉ
see-RECIP-1SG[OPT] = DP
Let me visit (with her).

(234) *Esetinosio cikama kutatik,...*
eset-ínós-í-o cɪkám-á kʊt-áti-kᵉ
ask-RECIP-3SG-SEQ women-NOM say-3PL-SIML
And the women asked themselves saying,…

(235) *Ɗemusu roɓaa ɦiyeitimosat.*
ɗɛmʊsʊ roɓa-a ɦiye-it-ímós-átⁱ
before people-ACC know-CAUS-RECIP-3PL[SUBJ]
Before people recognize each other.

(236) *Roɓa ni biraa morinosia iyad.*
roɓ-a = ni bɪra-a mór-ínósí-a i-á = dᵉ
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'
ɪdíŋ-	'narrow'
ɪkár-	'thin'
kik-ím-	'medium build'
kúɗ-	'short'
kwáts-	'small'
téḱéz-ɛm-	'shallow'
ze-	'big'
zikíbɔ̀-	'tall, long'
zízɔ̀-	'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’
ılíɓ-	‘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-ʊl-ím-	‘sleek’
lıw-íd-	‘smooth’
mıt-ír-ím-	‘withered’
ŋar-ód-	‘crunchy’
ɲɔŋ-ɔ́r-ɔ́m-	‘dirty’
ts’al-íd-	‘oily’

(244) *Behavioral propensity*

batán-	‘kind’
fiyɛt-	‘fierce’
nɔ-ɔ́s-án-	‘wise, clever’
ɪráká-án-	‘jealous’
ɪtsán-án-	‘irritating’

(245) *Speed*

ɪnípón-	‘slow’
ɪtírón-	‘fast’

(246) *Difficulty*

bat-án-	‘easy’
ɪtíón-	‘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 Ɲakuj.		*Maraŋa Ɲakuj.*	
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 bɛ́ɗ-á ƙo-oni-k^{a}]$_{RC}$
person-NOM = REL.SG want-REAL go-INF-ACC
The person who wants to go.

(252) *Roɓa ni beɗa ƙoonik.*
roɓ-a = [ni bɛ́ɗ-á ƙo-oni-k^{a}]$_{RC}$
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 *ɪlɔ́-* '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-k^{a}
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-k^{e}
sleep-COMP-IMP.SG good-2SG-SIML
Sleep well (lit. 'Sleep you being good')!

(256) *Imeɗetaa ɓets'ik.*
ɪmɛɗ-ɛt-á-á ɓets'-i-k^{e}
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 *da^{e}* '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-kó=d*^{e} '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*

$CV_1C\text{-}V_1C$-	
bɛɗ-ɛ́d-	‘delicate’
lɪw-íd-	‘smooth’
lyam-ád-	‘powdery’
ŋʊɓ-ʊ́d-	‘brittle’
$CV_1C\text{-}V_2C$-	
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’
dɛʲ-ɛ́d-	‘squat’
gɔk-ɔ́d-	‘stiff’
gwid-íd-	‘limber’
ʲam-úd-	‘velvety’
kwitsʼ-íd-	‘juicy’
mɪl-íd-	‘shiny’
na-úd-	‘flimsy’
nɛr-ɛ́d-	‘wobbly’
tsak-ád-	‘watery’
tsʼal-íd-	‘oily’
tuɗ-ád-	‘leathery’
wɪɲ-íd-	‘syrupy’
wuʲ-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-úd-* ‘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) *Kwexeduƙotaa kwex.*

kwɛʃ-ɛ́d-ʊƙɔt-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 *tɛ́ƙɛ́ʒ-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 underspecificed 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-V_1C	
bɛlɛ́r-ɛ́m-	'bulging'
ɗapál-ám-	'flat'
duláts'-ám-	'fat and juicy'
kik-ím-	'stout'
lɪkíɗ-ím-	'hour-glass shaped'
ŋɔrɔ́ŋ-ɔ́m-	'dirty'
pʊŋúr-úm	'stumpy'
semél-ém-	'oval'
toróŋ-óm-	'ridged'
tuɗús-úm-	'naked'
$CV_1(C)V_2C$-V_3C	
ɟul-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-úm-	‘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’
sʊlót-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, *ɟʊrút-úm-* ‘slippery’ from *ɟór-* ‘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 *nɛpɛƙ-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’
dɛdɛ-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’
ɪ̰ʊ́-	‘lie’	→	ɪ̰ʊ-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) *Mudukanid.*
múɗúk-án-íd-∅
blind-STAT-2SG-REAL
You are blind.

(268) *...idodokanatie tumedoo ɟik.*
iɗódɗók-án-áti-e tumɛˈdɔ́-ɔ́ ɟík
pile-STAT-3PL-SIML there-ABL ADV
...(they being) piled up all over there.

(269) *Iteisinoo wicee tutukanatie ho.*
ɪtɛ́-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.*

bɛ́ɗ-át-a	ze-ik-aak-ón-uƙotí-k[a]
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-ít[a]	‘You are all good.’
3PL	maraŋ-aak-át[a]	‘They are all good.’

Because {-aák-} ends in the segment /k/, haplology occurs when the suffix is followed by the completive aspect morpheme {-ʊkɔtí-} containing /k/. This results in a /-áá-/ being a haplologized allomorph of the distributive:

(275) *Zeikaakotatak.*
ze-ik-áá-kot-át-a-k[a]
be-ADJ.PL-DISTR-COMP-3PL-REAL-PRF
They’ve each grown big.

(276) *Maa xeɓiaakoit.*
má-á ʃeɓ-i-áá-ko-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 ni.*
it-aak-á nié-é = ni
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 pak[i]
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	=nɔkᵊ
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'ukota nok.*	*Ats'ukotukoo nok.*
	áts'-úkɔt-a = nok^{o}	áts'-úkɔt-ʊ-kɔ́ = ɔ = nɔk^{ɔ}
	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) *Nkakia nak.*
ŋkák-í-a = nak^{a}
eat-1SG-REAL = PST1
I ate (earlier today).

(284) *Maa naa nƙaƙi.*
má-á = naa ŋƙáƙ-íⁱ
not-REAL = PST1 eat-1SG[IRR]
I didn't eat (earlier today).

(285) *Ntsuo naa nƙaƙiaad.*
ntsú-ó = naa ŋƙáƙ-í-á = dᵉ
it-COP = PST1 eat-1SG-REAL = DP
That's why I ate (earlier today).

(286) *Nanaa nƙaƙiaadee,...*
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	= nɔkᵓ	'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 = nak[a]
come-1SG-REAL = PST1
I came (earlier today).

(289) *Atsia bats.*
ats-í-á = bats[e]
come-1SG-REAL = PST2
I came yesterday.

(290) *Atsia nok.*
ats-í-á = nok[o]
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: **-ʔka* for recent past, **-(t)se/sɪ?* for removed, and **-kɔ* for remote. The suffix **-ʔka* is related to the present perfect suffix {-ʔka}, 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^{o}*, 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) *Nƙakesia ts'oo.*
ŋƙaƙ-es-í-á ts'ɔɔ
eat-INT-1SG-REAL PRES
I will eat just now.

(295) *Nƙakesia taa.*
ŋƙaƙ-es-í-á táa
eat-INT-1SG-REAL FUT2
I will eat later/next time.

(296) *Nƙakesia 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-ɛ́ 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.*
ńt-á ts'ɔɔ ƙó-í[i]
not-REAL PRES go-1SG[IRR]
I'm not going now.

Nta ƙoii ts'oo.
ńt-á ƙó-íí ts'ɔɔ
not-REAL go-1SG[IRR] PRES
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 = bats^{e}	earlier today
Removed (PST2)	ná = tsamʊ	ná = tsam	yesterday
Remote (PST3)	ná = noo	ná = nok^{o}	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 *ɗî-* 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[a]	náa	ƙa-a
	go-REAL = PST1	CONF.PST1	go-REAL
	She went.	Yes, she did go.	
(304)	*Nƙaƙima bats.*	*Sina nƙaƙima.*	
	ŋƙáƙ-ím-a = bats[e]	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[o]	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'.