A grammar of Tagdal: a Northern Songhay language
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Chapter 3

3.0   Morphology

This chapter deals with the morphology of Tagdal, starting with the noun, the pronoun and the NP in Section 3.1. Section 3.2 will cover when Tagdal utilises Tuareg versus Songhay vocabulary. Section 3.3 discusses modifiers, followed by a brief discussion of adpositions in Section 3.4. Finally, Section 3.5 includes a description of the verb morphology, ending with a brief discussion of the Dative case and of the Verb Phrase, which will be completed in the following chapter. Throughout this chapter it will be demonstrated that in many cases, vocabulary of Songhay etymology and vocabulary of Tuareg etymology behave very differently from each other in Tagdal, especially at the level of the prosodies. This is reminiscent of Kossmann's (2010) idea of parallel system borrowing in Tasawaq and Tadaksahak.

3.1   Nouns

Section 3.1.1 will discuss the pronominal sub-system of Tagdal. This includes both the independent pronouns, as well as clitics with pronominal function. In Section 3.1.2 the morphology of the noun will be discussed. This will introduce for the first time the differences in etymological behaviour between Songhay and Tuareg cognates in Tagdal. Finally, Section 3.1.3 will discuss how verb roots are nominalised, depending on their etymologies.

3.1.1 Pronominal subsystem

The Tagdal pronominal sub-system consists of two types of items with promoninal function. First, independent pronouns, which do not attach to any other item in the clause. Second, pronominal clitics, effectively bound morphemes which attach onto various elements of the clause. Each of these will be discussed below.

Independent pronouns

The pronouns in Tagdal tend to be differentiated based on person, first and second, and number, either singular or plural. Table 3-1 describes these.

Table 3-1, independent pronouns

	singular	plural
first person	ɣaay	íiri
second person	nin	ánʒi
third person	áŋga	íŋga / íŋgi[34]

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[34] The Abargan and kəl Ilokkod varieties use the third person plural pronoun *íŋgi*, while the kəl Amdid, Ibarogan and Tarbun varieties use *íŋga*.

Since the pronoun is not a required element of the Tagdal clause, its functions often tend to be more pragmatic. This will be discussed in more detail in the following chapter.

Pronominal clitics

The pronominal clitics, described in Table 3-2, are essentially bound morphemes with pronominal function, which attach onto various elements of the clause.

Table 3-2, pronominal clitics

	singular	plural
first person	ɣa= / aɣ=[35]	íiri=
second person	ni= / in=[36]	ánʒi=
third person	a=	i=

Unlike independent pronouns, pronominal clitics are usually a required element of the verb, and are common in other places where the element represented by a Noun Phrase is already known.

3.1.2 Noun morphology

This section includes a discussion of the noun morphology of Tagdal, along with certain prosodic behaviours, especially the interactions between stress, vowel length and consonant length. These will especially become important with respect to nouns of Tuareg origin, since they tend to add syllables as affixes are attached to the root, affecting each of the aforementioned phenomena. In any case, since so much of the morphology and accompanying prosodies depend on the etymology of the noun,[37] the section will begin with a discussion of nouns of Songhay origin, followed by a discussion of nouns of Tuareg origin.

Songhay origin

Nouns of Songhay origin make up around 25% of the overall Tagdal lexicon, though some 65% of basic vocabulary (Benítez-Torres 2009, Benítez-Torres and Grant 2017). Figure 3-1 demonstrates the basic structure of the noun of Songhay origin.

Figure 3-1 structure if the noun, Songhay origin
noun root   PL -én

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[35] only when attached to the Dative *sa*
[36] only when attached to the Dative *sa* or preceding the Future *tə-* or the Negations *sə-* or *nə-*
[37] Similar to what occurs in Tadaksahak (Christiansen-Bolli 2010: 49).

Most nouns of Songhay origin begin with a consonant other than /t/ and will have either one or two syllables. When it is pluralised with the suffix *-én*, two things occur. First, if the noun in the sigular has a CVC syllable pattern, which is very common, the vowel in the initial syllable lengthens, so that the CV́C pattern now has a CV:CV́C pattern in the plural. Second, stress will shift to the plural suffix *-én*. Table 3-3 demonstrates some common nouns of Songhay etymology with CVC patterns.

Table 3-3 nouns of Songhay origin, CVC pattern in singular form

	Singular		Plural	
1	ber	'older sibling'	beerén	'older siblings'
2	ben	'finishing'	beenén	'instances of finishing'
3	boy	'moving'	booyén	'instances when one moved'
4	dab	'cloth'	daabén	'clothes'
5	dam	'shameful thing'	daamén	'shameful things'
6	dor	'pain'	doorén	'hurt feelings'
7	ḍos	'touch'	ḍoosén	'touches'
8	dut	'pounding millet'	duutén	'instances of pounding millet'
9	fad	'thirst'	faadén	'thirsts'
10	fun	'keyhole'	fuunén	'keyholes'
11	fus	'swelling'	fuusén	'swellings'
12	har	'praise'	haarén	'praises'
13	haw	'attachement'	haawén	'attachements'
14	hin	'power'	hiinén	'powers'
15	kar	'hitting'	kaarén	'individual blows'
16	kaw	'removal'	kaawén	'removals'
18	koy	'master'	kooyén	'masters'
19	kud	'herding'	kuudén	'instances of herding'
20	man	'name'	maanén	'names'
21	nam	'bite'	naamén	'bites'
22	qos	'cut'	qoosén	'cuts'
23	ʃab	'shaving'	ʃaabén	'instances shaving'
24	ʃaw	'call'	ʃaawén	'calls'
25	tan	'chasing down'	taanén	'instances chasing down'
27	teʒ	'falling down hard'	teeʒén	'times of falling down hard'
28	tuk	'hidden thing'	tuukén	'hidden things'
29	waw	'insult'	waawén[38]	'insults'

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[38] In Tadaksahak (Christiansen-Bolli 2010:107) in the case of *waw* 'insult' stress does not shift as it does in Tagdal.

| 30 | way[39] | 'woman' | | wayyén | 'women' |
| 31 | zoq | 'fight' | | zooɣén[40] | 'fights' |

It is also common for nouns of Songhay origin to have two syllables, with a CV́:CV or CV́:CVC pattern in the singular. Like the examples in Table 3-3, when the plural suffix -*én* is present, stress shifts to the final syllable. Furthermore, the final vowel in the singular is elided in the presence of the plural suffix. Table 3-4 demonstrates.

Table 3-4 nouns of Songhay origin, stress on penultimate syllable in singular form

	Singular		Plural	
1	bayna	'slave'	baynén	'slaves'
2	báaɣa	'love'	baaɣén	'loves'
3	báari	'horse'	baarén	'horses'
4	béena	'top'	beenén	'tops'
5	bóora	'person'	boorén	'people'
6	bóoʃi	'ashes'	booʃén	'types of ashes'
7	géeri	'saddle for camel'	geerén	'saddles, camels'
8	gúusu	'hole'	guusén	'holes'
9	háabu	'single strand of hair'	haabén	'hair'
10	háamu	'meat'	haamén	'types of meat'
11	híimi	'cleaning'	hiimén	'instances of cleaning'
12	húuru	'fire'	huurén	'fires'
13	húuwa	'milk'	huuwén	'types of milk'
14	kúuru	'skin'	kuurén	'skins'
15	kúusu	'cooking pot'	kuusén	'cooking pots'
16	qóora	'toad'	qoorén	'toads'
17	ʃáana	'small person'	ʃaanén	'small people'
18	sáawa	'resemblance'	saawén	'resemblances'
19	táasu	'meal'	taasén	'meals'

Table 3-5 demonstrates nouns of Songhay origin which have CVCCV or CVCCVC patterns in their singular form. In these nouns, stress will typically, but not always, fall on the penultimate syllable in the singular. However, like in the examples in the previous tables, it will shift to the syllable with the plural suffix -*én* in the plural form. In addition, if the singular form ends in a vowel, it will elide before the plural suffix.

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[39] The nouns *bay* 'know' and *way* 'woman' in present an interesting exception, where instead of lengthening the initial vowel, it is the final consonant *y* that is lengthened in the plural, forming a CVC:V́C pattern.

[40] It is very common in Tagdal for the voiceless obstruent q to become the voiced fricative ɣ intervocallically.

Table 3-5 nouns of Songhay origin, CVCCV and CVCCVC patterns

	Singular		Plural	
1	fárka	'donkey'	farkén	'donkeys'
2	gánda	'country'	gandén	'countries'
3	gárgor	'laughing'	gargoorén	'laughs'
4	gónʃi	'snake'	gonʃén	'snakes'
5	hámni	'fly'	hamnén	'flies'
6	hánʒi	'month'	hanʒén	'months'
7	hánʃi	'dog'	hanʃén	'dogs'
8	hárhor	'game'	harhoorén	'games'
9	háyni	'millet'	haynén	'kinds of millet'
10	híyaw	'wind'	hiyaawén	'winds'
11	ʒáɣʒi	'day'	ʒaɣʒén	'days'
12	kámba	'hand'	kambén	'hands'
13	káyna	'younger sibling'	kaynén	'younger siblings'
14	káyne	'jackal'	kaynén	'jackals'
15	kónda	'ant'	kondén	'ants'
16	márwa	'knot'	marwén	'knots'
17	sárho	'favour'	sarhén	'favours'

A number of Songhay nouns do not follow the typical pattern. In Table 3-6, nouns already place stress on the final syllable in the singular form. Therefore, when the plural *-én* is present, stress remains on the final syllable.

Table 3-6 nouns of Songhay origin, stress on final syllable

	Singular		Plural	
1	aaró	'man'	aarén	'men'
2	baŋgú	'well'	baŋgén	'wells'
3	banɣó	'head'	banɣén	'heads'
4	bundú	'stick'	bundén	'sticks'
5	daɣná	'forgetting'	daɣnén	'instances of forgetting'
6	fanjí	'basket'	fanjén	'basket'
7	fiijí	'sheep'	fiijén	'sheep PL'
8	fuufú	'cold'	fuufén	'instances of cold'
9	fuunús	'lighting a fire'	fuunusén	'instances of lighting fires'
10	gungú	'belly'	gungén	'bellies'
11	haŋgá	'ear'	haŋgén	'ears'
12	hinʃiiní	'goat'	hinʃiinén	'goats'
13	hiirí	'necklace'	hiirén	'necklaces'
14	huunú	'exit'	huunén	'exits'
15	ʒiidá	'walk'	ʒiidén	'walks'
16	ʒirbí	'year'	ʒirbén	'years'

17	ʒuulá	'making a deal'	ʒuulén	'instances of making a deal'
18	karfó	'rope'	karfén	'ropes'
19	korrá	'heat'	korrén	'instances of heat'
20	kuudú	'blood'	kuudén	'types of blood'
21	laabó	'mud'	laabén	'types of mud'
22	maaní	'odour'	maanén	'oudours'
23	naasó	'fat'	naasén	'types of fat'
24	niiná	'mother'	niinén	'mothers'
25	nuunú	'smoke'	nuunén	'types of smoke'
26	ʃiiʒí	'night'	ʃiiʒén	'nights'
27	ʃiirí	'salt'	ʃiirén	'salts'
28	wayní	'sun'	waynén	'suns'

Table 3-7 demonstrates nouns with CVC patterns, where in the plural form the initial vowel does not become longer. Instead, it is the final consonant of the singular form which elongates. In each of these cases, the vowel and consonant combination is /ay/, pronounced [ej].[41] However, when combined with the plural suffix *-én*, instead of being pronounced [baːˈjen] and [waːˈjen] as one would expect, they are instead pronouned [bejˈen] and [wejːˈen], represented here as bayyén and wayyén. This likely because Tagdal does not allow the long vowel [ˈbaːj̥] and [ˈwaːj̥] with closed syllables.[42] Therefore, Tagdal speakers might find it easier to elongate the final consonant of the vowel in the presence of the plural *-én*. However, this question requires much more study.

Table 3-7 irregular nouns of Songhay origin, initial vowel does not elongate with plural

	Singular		Plural	
1	bay	'knowing'	bayyén	'things known'
2	hay	'birth (animal)'	hayyén	'births (animal)'
3	kay	'continuation'	kayyén	'continuations'
4	way	'woman'	wayyén	'women'
5	zay	'theft'	zayyén	'thefts'

In Table 3-8, the nouns in question have a CV pattern in the singular. Therefore, their plural form often does not add another syllable. The exception to this is Examples 2 and 5, where the plural *-én* does not seem to interact with the vowels /e/ and /i/ and requires an epenthetic /y/.

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[41] See discussion of /ay/ and /aw/ in the previous chapter.

[42] For example, adding the third person singular proclitic =*a* to *zay* [ˈzej] chances prononciation to *záay-a* 'steal it', pronnounced [ˈzaːja] or to *báay-a* 'know it', pronounced [ˈbaːja].

Table 3-8 irregular nouns of Songhay origin, CV pattern in singular

	Singular		Plural	
1	ʒe	'language'	ʒen	'languages'
2	ki	'standing'	kiyyén	'instances of standing'
3	me	'mouth'	men	'mouths'
4	mo	'eye'	mon	'eyes'
5	te	'arrival'	teyyén	'arrivals'

Table 3-9 demonstrates a number of other nouns of Songhay etymology that seem to be irregular. Example 1, *héewi* 'cow' takes the plural form *hawyén*. In Example 2, *húggu* 'dwelling' has the second consonant already elongated in the singular form, rather than the expected **húugu*. In addition, stress does not shift to the plural marker and the plural form is the irregular *húʒʒen* 'dwellings'. In Examples 3 and 4, stress does not shift to the plural suffix.

Table 3-9 irregular nouns of Songhay origin

	Singular		Plural	
1	héewi	'cow'	hawyén	'cows'
2	húggu	'dwelling'	húʒʒen	'encampment'
3	ʃaaráy	'friend'	ʃaaráyyen	'friends'
4	təgúuʒi	'tree'	təgúuʒen	'trees'

Tuareg origin

About 75% of the overall lexicon of Tagdal is of Tuareg origin. The structure of the typical singular noun of Tuareg is given in Figure 3-2.

FIGURE 3-2 structure of the noun word, Tuareg origin, singular

a- / t-	Root

This section will include discussions of nouns of Tuareg origin, beginning with those that utilise the nominaliser *a-*, followed by those that begin with *t-*.

Prefix *a-*

In Tuareg languages, the prefix *a-* marks masculine nouns, which then require grammatical agreement. However, since Tagdal has no gender agreement, there is no reason to consider this prefix a gender marker, except in certain cases where it specifically functions to distinguish between a masculine or a feminine noun (see Section 3.2).

In the plural form, the prefix *i-* replaces *a-*, followed by the root. In turn, the

root is followed by the plural suffix, either *-an*, *-en*, *-wan* or *-tan*, as Figure 3-3 shows.

FIGURE 3-3 structure of the noun, Tuareg origin, plural

PL prefix	Root	PL suffix
i-		-an, -en, -wan, -tan

In nouns of Tuareg origin certain rules apply to all vocabulary of Tuareg origin, regardless of grammatical category.[43] 1) Stress will always fall on either the penultimate or antepenultimate syllable, regardless of how many syllables the word may have after adding suffixes and prefixes.[44] 2) Typically, stress will remain on the same syllable of the root, unless the addition of prefixes and suffixes would cause it to occur before the antepenultimate syllable. In this case, stress would then shift to the antepenultimate. 3) If stress falls on the antepenultimate syllable, this will affect the penultimate in two ways: a) the vowel in the penultimate syllable will elongate, unless it is /ə/. b) The consonant in the penultimate syllable will also elongate, unless it is /r/, or unless the presence of other consonants in the same syllable prevents this. In this case, the lengthening will occur in the following consonant unless it is /r/, or unless contact with other consonants prevents this. Finally, 4) Stress occurring in the antepenultimate syllable prevents gemination from occurring. Table 3-10 demonstrates a few common nouns that begin with the singular *a-* and take the *-an* plural suffix.

Table 3-10 nouns of Tuareg origin, nominaliser a-, plural -an

	Singular		Plural
1	abbákkad	'sin'	ibákkaadan
2	abbárad	'young man'	ibáraadan
3	ábbar[45]	'deep scratch'	íbbaaran
4	abbárgan	'showing off'	ibárgaanan
5	Abbarkóray	'man from Ibarkoraayan tribe'	Ibarkóraayan
6	Abbárog	'man from Ibaroogan tribe'	Ibároogan
7	abbəraɣbə́raɣ	'aplause'	ibəraɣbə́raaɣan
8	áblaɣ	'piece of clay'	íblaaɣan
9	abbóbaz	'male cousin'	ibóbbaazan
10	ábboora	'sorghum'	íbbooran
11	ábroɣ	'blanket'	íbrooɣan
12	addággal	'father-in-law'	idággaalan

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[43] See, for example, Section 3.1.2 for a discussion of stress placement in verbs of Tuareg origin and Section 3.3 for adjectives of Tuareg origin.

[44] In words where the root has more than three syllables, the preponderance of the data shows a preference for antepenultimate stress.

[45] In the case of *ábbar* 'deep scratch' and others like it, in the singular form the initial long consonant is likely due to gemination, while in the plural it is likely due to elongation of the consonant due to stress occurring in the antepenultimate syllable.

13	addánay	'force-fed noble woman'	idánaayan
14	áddaẓ	'fatigue'	íddaaẓan
15	ádgag	'leather jerkin'	ídgaagan
16	addíben	'marriage'	idíbbeenan
17	affaddáɣan	'fat around stomach'	ifadáɣɣaanan
18	affántak	'bed cover'	ifántaakan
19	affaráqqan	'stick'	ifaráqqaanan
20	affáray	'sick feeling'	ifáraayan
21	afárɣas	'desert tortoise'	ifárɣaasan
22	áffay	'cleaning'	íffaayan
23	Affélan	'Fulani man'	Iféllaanan
24	affə́gga	'discovery'	ifə́ggaanan
25	áfraw	'wing'	ífraawan
26	aggə́rmel	'tick full of blood'	igə́rmeelan
27	aggərúrus	'mewling of camel'	igərúruusan
28	aggódrar	'dust'	igódraaran
29	aggóras	'countryside'	igóraasan
30	ággoz	'achilles tendon'	íggoozan
31	aggúggel	'person without father'	igúggeelan
32	aɣɣálay	'small secret'	iɣállaayan
33	aɣɣázzar	'small pool of water'	iɣázzaaran
34	aɣɣə́bber	'hip'	iɣə́bbeeran
35	áɣlal	'valley'	íɣlaalan
36	áɣɣoora	'morning'	íɣɣooran
37	aɣɣóraf	'taking animals to well every 2 days'	iɣɣóraafan
38	áɣrut	'raven'	íɣruutan
39	áhhal	'freckle, mole'	íhhaalan
40	áhhol	'advice'	íhhoolan
41	ahhúlel	'young donkey'	ihúlleelan
42	aʒʒámar	'lamb'	iʒámmaaran
43	aʒʒənaɣʒə́naɣ	'trembling'	iʒənaɣjə́nnaaɣan
44	aʒʒóbar	'evil spirit'	iʒóbbaaran
45	akkábar	'bowl'	ikábbaaran
46	akkábkab	'pre-adolescent boy'	ikábkaaban
47	akkámay	'herd of mammals'	ikámmaayan
48	akkárban	'grass hut'	ikárbaanen
49	akkárbay	'trousers'	ikkárbaayan
50	akkáʃwar	'mountain'	ikáʃwaaran
51	akkə́ŋkar	'cockroach'	ikə́ŋkaaran
52	akólan	'squirrel'	ikóllaanan
53	akkóm	'grass tent'	ikkóman
54	akkótay	'mouse'	ikóttaayan
55	akkúndur	'rat'	ikúnduuran
56	alláday	'pig'	iláddaayan
57	allámmad	'teaching'	ilámmaadan

58	állawka	'hammock'	íllaawkan
59	alláxar	'tomb'	iláxxaaran
60	alħákim	'governor'	alħákiiman
61	alħíʒab	'talisman, charm'	alħíʒʒaaban
62	alħísab	'calculation'	alħíssaaban
63	ámmaasa	'seed'	ímmaasan
64	ammakáʃaw	'iguana'	imakáʃʃaawan
65	ammánnay	'diviner'	imánnaayan
66	amáŋkas	'punch'	imáŋkaasan
67	ammanókal	'chief'	imanókkaalan
68	aráʒʒad	'diarrhea'	iráʒʒaadan
69	arə́ggan	'adult male camel in heat'	irə́ggaanan
70	arkánay	'suffering'	irkánnaayan
71	assáhar	'entry'	issáhhaaran
72	assənə́flay	'comfort'	isənə́flaayan
73	attə́gmi	'something being sought'	itə́gmiiyan
74	attə́rmas	'hostage'	ittə́rmaasan
75	awwára	'baby male camel'	iwáran
76	áwwas	'urine'	íwwaasan
77	azzággaz	'fenec fox'	izággaazan
78	azzágraw	'rainy season'	izágraawan

Table 3-11 demonstrates nouns of Tuareg origin with the Plural suffix *-en*.

Table 3-11 nouns of Tuareg origin, nominaliser a-, plural -en

	Singular		Plural
1	abbíyaw	'teenage boy'	ibíyyaawen
2	ábbus	'bleeding wound'	íbbuusen
3	áddaɣ	'half, part'	íddaaɣen
4	addáɣas	'colostrum'	idáɣɣaasen
5	adgɔ́lʃət	'mid-morning'	idgɔ́lʃaaten
6	áffud	'knee'	íffuuden
7	aɣáʒʒiira	'curdled milk w/ dates and cheese curds'	iɣáʒʒiiren
8	aggábal	'plant stem'	igábbaalen
9	agámmam	'small amount of chewing tabacco'	igámmaamen
10	Ágdal	'man from Igdaalen tribe'	Ígdaalen
11	ágnaw	'cloud'	ígnaawan
12	aggúlgul	'meadow'	igúlguulen
13	áɣlam	'mount'	íɣlaamen
14	áħhar	'male lion'	íħaaren
15	aʒʒɔ́mar	'forebearance'	iʒɔ́mmaaren
16	áʒwal	'locust'	íʒwaalen
17	ákkaala	'knot in camel's nose'	íkkaalen
18	alláq	'spear'	alláɣen
19	állas	'fight'	íllaasen
20	álham	'anger'	álhaamen
21	alħókum	'kingdom'	alħókkuumen
22	álmoẓ	'sunset'	álmooẓen
23	amádhal	'helper'	imádhaalen
24	ʕárab	'Arab'	ʕáraaben
25	arídal	'wolf'	iríddaalen
26	arríyal	'single unit of currency'	arríyyaalen
27	assággay	'baby gazelle'	isággaayen
28	assáyfat	'likeness'	isáyfaaten
29	aʃʃíl	'obligation'	iʃʃílen

Table 3-12 demonstrates nouns of Tuareg origin that take the Plural suffix *–wan*. These are not as common as those with *-an* and *-en*.

Table 3-12 nouns of Tuareg origin, nominaliser a-, plural -wan

	Singular		Plural
1	ammánsay	'food'	imánsaywan[46]
2	abbárkaw	'male calf'	ibárkaawan
3	aɣrúru	'descent from mountain'	iɣrúruuwan
4	áknay	'twin boy'	íknaywan

Table 3-13 demonstrates some nouns of Tuareg origin with the plural suffix -*tan*. These are relatively uncommon in Tagdal, as -*tan* is often a plural marker used for foreign borrowings.

Table 3-13 nouns of Tuareg origin, nominaliser a-, plural -tan

	Singular		Plural
1	abbə́rʒiya	'street dog'	ibə́rʒiitan
2	aggánna	'side'	igánnaatan
3	aggə́rri	'wisdom'	igə́rriitan
4	ammíʒi	'separation'	imíʒʒiitan

When the vowel /ə/ is the nucleus of the stressed syllable, no vowel lengthening takes place. Still, the preceding consonant lengthens unless the presence of other consonants in that syllable prevents it. In those cases, it is the consonant in the following syllable that lengthens, unless the presence of other consonants prevents it. Table 3-14 provides examples where /ə/ in the stressed syllable does not lengthen.

Table 3-14 nouns of Tuareg origin, nominaliser a-, no vowel elongation in plural

	Singular		Plural
1			
2	abbáydəg	'thief'	ibáydəggan
3	abbə́wəl	'shallow hole'	ibə́lwan
4	addə́ləg	'decoration'	idə́ləggan
5	addə́mi	'gazelle'	iddə́man
6	affərə́krək	'trembling'	ifərə́krəkkan
7	áftək	'clothing'	íftəkkan
8	aggə́rəd	'granary'	igə́rəddan
9	aggə́zəl	'hard work'	igə́zzəlan
10	agírər	'gutter, stream'	iggírəran
11	aggə́rʃək	'victim, evil eye'	igə́rʃəkkan
12	aɣɣáraf	'celebration'	iɣə́rəffan
13	aɣɣə́rrəg	'animal dropping'	iɣə́rrəgan

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[46] *imánsaywan* 'foods' and Example 4 íknaywan 'twins' seem to be exceptions, since the vowel in the antepenultimate syllable does not lengthen. One possible explanation is that in both cases, the plural form is the default with, for example, the singular *amánsay* occurring only rarely. (*áknay* 'twin' is more common.) However, this requires more study.

14	áɣrəm	'town'	iɣrəmman
15	ahhǝlə́klǝk	'panting'	ihlə́klǝkkan[47]
16	ahhánəfa	'whining'	ihánnəfen
17	allásəl	'quantity'	ilássəlen
18	assə́ksəs	'dance'	isə́ksəssen
19	assəmə́gni	'preparation'	isəmə́ggənan[48]
20	aʃʃíkəl	'voyage'	iʃíkkəlen
21	áxlək	'creation'	íxləkkan

Finally, Tables 3-15 through 3-20 provide examples of nouns of Tuareg etymology that for various reasons do not follow the typical pattern in their plural form. Most of these correspond to a series of nouns that, in mainstream Berber languages, have apophonic plural forms (see, for example, Kossmann 2011: 40, 2013: 204). Apophonic plural forms in Tagdal do not typically have a plural suffix, end with the vowel /a/ and often follow a pattern of alternating high vowels in the singular with low vowels in the plural form, or vice-versa. In Table 3-15, the vowels in both the singular and plural forms do not alternate from high to low, or from low to high in the plural form.

Table 3-15 apophonic nouns: no vocalic changes

1	ablə́lag	'large intestine'	iblə́lag
2	ágna	'preference'	ígna
3	annáɣan	'eyebrow'	innáɣan
4	annamáṭṭan	'dead man'	innamáṭṭan
5	anə́sduuban	'young married man'	inə́sduuban
6	ayə́dman	'guarantee'	iyə́dman

In Table 3-16, the second vowel in the apophonic plural alternates from low in the singular form to high in the plural.

Table 3-16 apophonic plurals: vowel alternates from high to low, plus other vowel changes

1	abbágog	'male adult sheep'	íbgag
2	abbáyoq	'leather canteen'	ibbíyaq
3	ánnil	'ostrich'	ínyal
4	aʃʃámmur	'rebel'	iʃʃúmmar
5	aḍḍə́wi	'gerbil'	iḍḍə́wa
6	ammíʒʒir	'abandoned town'	immíʒʒar
7	assə́kbəl	'support'	issə́kbal
8	abbáykor	'hunting dog'	ibbíkar
9	aggənágən	'darkness'	iggunúgan
10	azzáŋgu	'enemy'	ízzəŋga

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[47] The initial ə is likely there for epenthetic purposes.

[48] A number of Tagdal speakers I have heard pronounce this *isəmmə́gnan*. From what I could tell, it seems that both pronunciations seem to be more or less acceptable.

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In Table 3-17, the initial vowel in the apophonic plural form alternates from low to high.

Table 3-17 apophonic nouns: low vowel to high vowel in plural

1	abbáŋkor	'temporary well'	ibbíŋkar
2	abbáwan	'leather sack'	ibbíwan
3	affákan	'mat for covering food'	iffúkan
4	affakárkor	'runt lamb'	iffəkə́rkar
5	akkáfar	'infidel'	ikkúfar
6	allátam	'side of body'	illútam
7	assámməd	'leather sack'	issúmməd
8	aggáyəs	'bustard'	iggúyəs
9	aggéləm	'orphan'	iggúləm

Tables 3-18 through 3-21 demonstrate irregular nouns of Tuareg etymology of various kinds. The nouns in Table 3-18 do not take the suffix *i-* in their plural form.

Table 3-18 no i- in plural form

1	áadan	'small intestine'	áadannan
2	áykar	'male puppy'	áykaaran

The nouns in Table 3-19 take some kind of vowel reduction in their plural forms.

Table 3-19 vowel reductions in plural

1	áɣɣəl	'right hand'	íɣlan
2	addə́rəz	'trace'	íddərzan
3	affárag	'garden'	íffərgan
4	aggáraw	'large body of water'	íggərwan
5	ahháket	'leather tent'	íhhiktan
6	allággaz	'watermelon'	íllagzen
7	awwáqas	'wild animal'	íwwuɣsan
8	awwátay	'year'	íwwutyan
9	addéggər	'share'	íddegran

In Table 3-20, the vowels alternate from high in the singular form to low in the plural.

Table 3-20 high in singular to low in plural

1	aɣɣə́ɣi	'cave'	iɣɣáɣan
2	akkéʒi	'rooster'	ikkáʒan

In Table 3-21, the vowels alternate from low in the singular form to high in the plural. A few have other irregularities as well.

Table 3-21 nouns of Tuareg origin low vowels in singular, high in plural

1	áddəmən	'guarantee'	áddumun
2	afféli	'runt'	iffélian
3	afúruuʃu	'imbecile'	ifíriiʃit
4	ahhórta	'trace'	ihhórti
5	ákkaasa	'rainy season'	ikássaaten
6	aʃʃáqeɣ	'brother'	iʃʃaqqéɣan
7	áḍḍad	'finger'	ídədwan
8	addə́ləg	'decoration'	idə́lləgan
9	abbə́wəl	'shallow hole'	ibbə́lwan

Prefix *t-*

Many nouns of Tuareg origin in Tagdal begin with the prefix *t-* in their singular form. In plural nouns, *-t* also occurs, in cases where the noun ends with a vowel[49] or with /ɣ/. In cases where a noun ends with /ɣ/, interaction with *-t* changes the /ɣ/ to /q/. For example *ammáʒaɣ* 'Tuareg man' would be *tammáʒaq* 'Tuareg woman'.

In Tuareg languages, *t-* is a maker of the feminine gender and these nouns would require grammatical gender agreement.[50] The structure of the Noun with the nominaliser *t-* is given in Figure 3-4.

Figure 3-4 the structure of the noun, t-

t-   ROOT   -t

In the plural form, the *t-* occurs in the beginning of the noun, in its initial position, followed by the plural prefix *i-*. This results in the *t-* palatalising to [ʃ]before the *i-*.[51] Finally, after the root the Plural suffix *-an*, *-en*, *-wan* or *–tan* appears. Figure 3-5 below demonstrates the structure of the noun of Tuareg origin with *t-* in its plural form.

Figure 3-5 the structure of the plural noun, t- nominaliser

t-   i-   ROOT   -t   -an, -en, -wan, -tan

The usual pattern of stress placement, consonant and vowel lengthening occurs in nouns with *t-*, as with all other vocabulary of Tuareg etymology (see Section 0 for a

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[49] This is one area where Tagdal is different from Tadaksahak and from mainstream Tuareg languages, where nouns that begin with *t-* also end with *-t*. For example, *táɣrəm* 'village' in mainstream Tuareg languages and in Tadaksahak would be **táɣrəmt*, which in Tagdal would be incorrect.

[50] The *t-* also functions to distinguish feminine from masculine nouns, as well as large from small items in Tagdal. However, no grammatical agreement is required.

[51] Palatalising *t-* to *ʃ-* before *i-* occurs in most varieties of Tagdal, though in the Abargan and Kəl Amdid varieties it occurs as affricativisation, with *t-* becoming *tʃ-*. In Tabarog, the *t-* fricativises instead, to *s-*.

description). Table 3-22 demonstrates a few of the more common nouns of Tuareg origin that take *t-*, along with the Plural suffix *-an*.

Table 3-22 nouns of Tuareg origin, nominaliser t-, plural -an

	Singular		Plural
1	tabbárar	'girl'	ʃibáraaran
2	tabbútut	'navel'	ʃibúttuutan
3	taddálat	'river grass'	ʃidállaatan
4	tággot	'hard morning rain'	ʃíggootan
5	tágrak	'polite burp after meal'	ʃígraakan
6	taggɔ́fut	'sand dune'	ʃigɔ́ffuutan
7	taɣɣárit	'shout'	ʃiɣáriitan
8	taɣɣássar	'ruinous mess'	ʃiɣáraasan
9	táɣɣer	'small bowl'	ʃíɣɣeeran
10	tahhálkat	'wild dog (Lycaon pictus)'	ʃihálkaatan
11	tahhírit	'pre-adolescent cow'	ʃiháriitan
12	takkómar	'cheese curds'	ʃikómmaaran
13	takkánar	'forehead'	ʃikánnaaran
14	takkárbay	'pants'	ʃikárbaayan
15	tákkay	'conversation'	tákkaayan
16	támɣar	'old woman'	ʃimɣaaran
17	tammédər	'part of turban covering mouth'	ʃiméddəran
18	táɣmar	'power'	ʃíɣmaaran
19	tarɔ́mmaq	'fear'	ʃirɔ́mmaaɣan
20	tárkat	'package'	ʃírkaatan
21	táwfooka	'headless carcass'	ʃíwfookan
22	táwʃit	'tribe'	ʃíwʃiitan
23	tazzárkat	'string'	ʃizárkaatan

Table 3-23 demonstrates nouns that take the *-en* Plural suffix.

Table 3-23 nouns of Tuareg origin, nominaliser t-, plural -en

	Singular		Plural
1	tabbállit	'shirt'	ʃibálliiten
2	tabbárad	'young woman'	ʃibáraaden
3	táblal	'seed, grain'	ʃíblaalen
4	tabbólas	'sack of grain'	ʃibóllaasen
5	taddárɣal	'gecko'	ʃidárɣaalen
6	taffádak	'irrigation near water geyser'	ʃifáddaaken
7	táffer	'gift for rendering service'	ʃíffeeren
8	tafláwis	'happiness'	ʃifláwiisen
9	taggáddal	'wrestling'	ʃigáddaalen
10	tággal	'bride price'	ʃíggaalen
11	tágmar	'hunt'	ʃígmaaren

12	taɣɣáɣan	'head of grain'	ʃiɣə́ɣɣaanen[52]
13	táɣlal	'small valley'	ʃíɣlaalen
14	táɣlam	'caravan'	ʃíɣlaamen
15	taɣɣáɣɣay	'small blanket'	ʃíɣáɣɣaayen
16	táɣlam	'young female camel'	ʃíɣlaamen
17	tahhárdan	'taditional string lute-like instrument'	ʃihárdaanen
18	taʒʒárgan	'filthiness'	ʃiʒárgaanen
19	takkálkal	'skinned animal carcass'	ʃikálkaalen
20	takkárkar	'coil of rope'	ʃikárkaaren
21	takkáʃit	'inheritance'	ʃikáʃʃiiten
22	takərəmə́reemət	'small temporary granary'	ʃikərəmə́remmiiten
23	talħútbat	'sermon'	ʃilħútbaaten
24	tammádnay	'force-fed noble woman'	ʃimádnaayen
25	tammagégrət	'barren woman'	ʃimaggérəten
26	tamállaaɣa	'race'	ʃimállaaɣen
27	tammárwal	'hare'	ʃimárwaalen
28	tallábas	'trick'	ʃilábbaasen
29	tammə́graw	'supplication'	ʃimə́graawan
30	tammáddal	'fine sand'	ʃimáddaalen
31	tammáwat	'young girl'	ʃimáwwaaten
32	tammólat	'serving spoon'	ʃimóllaaten
33	tannákbal	'mid-wife'	ʃinákbaalen
34	táŋgal	'parable'	ʃíŋgaalen
35	táŋkad	'piece, meat cut off bone'	ʃíŋkaaden
36	tárray	'path'	tárraayen
37	tassə́lbad	'noise'	ʃisə́lbaaden
38	tazzárɣaf	'multi-coloured female animal'	ʃizárɣaafen

Table 3-24 demonstrates a number of nouns of Tuareg etymology that take the suffix -*wan* in their plural form. Many of these, similar to *taɣɣáɣan* 'head of grain', *takərəmə́reemət* 'small temporary granary' and *tammagə́gret* 'barren woman' in Table 3-23, also undergo vowel changes, from low to high, in their plural forms.

Table 3-24 nouns of Tuareg origin, nominaliser t-, plural -wan

	Singular		Plural
1	tabbárday	'rug'	ʃibárdiiwan
2	taddáŋgaw	'granary made from mud bricks'	ʃidáŋgaawan
3	taffáski	'Id al-Fitr holiday'	ʃifáskiiwan

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[52] A number of these examples, *taɣɣáɣan* 'head if grain', *takərəmə́reemət* 'small temporary granary' and *tamagə́gret* 'barren woman' also undergo vowel changes in their plural forms, with the vowel heightening from /a/ to /ə/ or from /ə/ and /e/ to /i/.

4	táɣɣalgay	'eagle'	ʃiɣálgiiwan[53]
5	taɣɣáwʃit	'activity'	ʃiɣáawʃiiwan
6	táɣma	'hip'	ʃíɣmaawan
7	táhhuude	'oath'	ʃihíddaawan
8	takkárday	'authorisation'	ʃikárdiiwan
9	tákkooba	'sword'	ʃikábbiiwan
10	tamántaaka	'army'	ʃimantákkiiwan
11	táyte	'intelligence'	táytiiwan
12	taggéttaw	'cross'	ʃigíttaawan

Like nouns that begin with *a-*, there are cases of those with the *t-* where the stressed syllable has /ə/ in the nucleus, which is not lengthened. Table 3-25 demonstrates a few of these cases.

Table 3-25 nouns of Tuareg origin, nominaliser t-, no vowel elongation of /ə/ in plural

	Singular		Plural
1			
2	tádləm	'persecution'	ʃídləmmen
3	taggə́ltəm	'trapping by upper arm or leg'	ʃigə́ltəmmen
4	taggə́rəs	'cold season'	ʃigə́rəssan
5	tággəzəl	'kidney'	ʃíggəzal
6	táɣrək	'leather purse'	ʃiɣrəkken
7	tamə́zgəda	'mosque'	ʃimə́zgəden
8	tasə́lləf	'tick'	ʃisə́lləfen

In Tables 3-26 through 3-28, the nouns follow apophonic patterns of pluralisation. Table 3-26 gives examples of apophonic nouns where vowels shift from high in the singular to low in the plural form.

Table 3-26 apophonic nouns of Tuareg origin, nominaliser t-, high to low

	Singular		Plural
1	tannə́mmer	'thanks'	ʃinnémmar
2	takkáffar	'infidel woman'	ʃikkúffar
3	tannáflay	'comfort'	ʃinnúflay
4	tazzə́ggəz	'knife'	ʃizzə́ggaz
5	tammúɣsur	'settling down'	ʃimmáɣsar

In Table 3-27, vowels shift from low in the singular to high in the plural form.

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[53] *táɣɣalgay* 'eagle', *táhhuude* 'oath' and *tamántaaka* 'army' present several of those rare instances where stress changes in the plural form, since keeping it in the same syllable as the singular would, after adding the various prefixes and suffixes, place stress before the antepenultimate.

Table 3-27 apophonic nouns of Tuareg origin, nominaliser t-, low to high

	Singular		Plural
1	taddə́but	'bed'	ʃíddəba[54]
2	taggə́lmus	'turban'	ʃiggə́lmas
3	talláyaq	'suffering'	ʃillíyaq

In Table 3-28 the apophonic nouns all have multiple vowel shifts within a single word, from the singular to the plural form.

Table 3-28 apophonic nouns of Tuareg origin, nominaliser t-, other

	Singular		Plural
1	tawwággoz	'field'	ʃiwwúggaz
2	takkarákid	'shame'	ʃikkorókad
3	tammaxátir	'difficulty'	ʃimməxútar

Finally, I only found a single example of a noun with apophonic plurals that starts with *t-*, where the vowels remain the same in both the singular and plural form, *tazzárdam* 'scorpion', *ʃizzárdam* 'scorpions'.

Stress cannot shift to before the antepenultimate syllable. In fact, as the data demonstrate with cases such as *tam̀antaaka* 'army' / *ʃimantákkiiwan* 'armies', if adding affixes to the noun would cause stress to fall before the antepenultimate syllable, it instead shifts to the antepenultimate in the plural form. Table 3-29 demonstrates additional cases of this. In many of these cases, vowel shift also occurs in the plural form.

Table 3-29 nouns of Tuareg origin, nominaliser t-, 3+ syllables in plural, stress shifts to penultimate

	Singular		Plural
1	tábbooqa	'thin dust'	ʃibóqqaatan
2	táddaara	'tree trunk'	ʃiddáraaran
3	táffaaɣat	'rice'	ʃifáɣɣaaten
4	táffeeda	'injury from carrying load'	ʃifáddiiwan
5	táɣɣalgay	'eagle'	ʃiɣálgiiwan
6	táɣɣaara	'situation'	ʃiɣáraatan
7	tággarʃak	'evil eye'	ʃigárʃaaken
8	tággaaʒa	'large well with collapsed mouth'	ʃigáʒʒiiwan
9	tággəla	'bread'	ʃigə́llaawan
10	tágguuʒay	'another place'	ʃigúʒʒaayen
11	táhhuude	'oath'	ʃihíddaawan
12	tákkootay	'offering, sacrifice'	ʃikóttaawan
13	tállaaqay	'poor person'	ʃilə́qqaawan

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[54] *taddə́but* 'bed' is unusual in that stress changes to the antepenultimate syllable in the plural.

14	tamántaaka	'army'		ʃimantákkiiwan
15	támməklaw	'midday meal'		ʃiməklaawan
16	táraywat[55]	'honey'		ʃiráywaatan
17	tássaaka	'heifer'		ʃisákkaayen
18	táymaako	'help'		taymákkootan

Tables 3-30 and 3-31 demonstrate cases of nouns with the *t-* nominaliser that behave irregularly. In Table 3-30, the *t-* in the plural form does not palatalise, likely due to the absence of *i-* in the plural form.

Table 3-30 nouns of Tuareg origin, nominaliser t-, irregular, t- does not palatalise in the plural

	Singular		Plural
1	táwit	'chameleon'	táwwiiten
2	táayde	'personality'	táaydeewan
3	taʃʃát	'dark animal, white spots'	taʃʃáten[56]
4	táɣɣam	'footprint'	táɣɣaamen
5	táɣda	'spear with stone tip'	táɣdiiwan
6	tákkol	'step'	tákkoolen
7	táylal	'guinea fowl'	táylaalan

Table 3-31 demonstrates two examples of nouns that begin with *t-*, that do not conform to the normal pattern. *taddággal* 'daughter in law' seems to undergo some sort of consonant reduction in the plural form, with the loss of /g/, while *tawwáqqas* 'small wild animal' either has vowel alternation, from low in the singular form to high in the plural form, or, more likely, the ɣowel changes from /a/ in the singular to /ə/ in the plural, which then realises as /u/ in the presence of the preceding /w/. The latter is more likely, since the [u] in the penultimate syllable does not elongate, as it would normally do with stress on the antepenultimate.

Table 3-31 nouns of Tuareg origin, nominaliser t-, irregular other

	Singular		Plural
1	taddággal	'daughter-in-law'	ʃíduulen
2	tawwáqqas	'small wild animal'	ʃiwwuɣsan
3	táwʃit	'tribe, species'	ʃiúʃʃiitan

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[55] *táraywat* 'honey' is also unusual in that the vowel /a/ in the penultimate syllable remains short, resulting in /ay/, pronounced [ej], rather than /aay/ [aːj].

[56] taʃʃát 'dark animal with white spots' is unusual on two counts. First, stress falls on the final syllable in its singular form. Second, in its plural form the initial *t-* does not palatalise, possibly because of the absence of *i-*.

3.1.3 Nominalisation, verbal nouns

This section contains discussions of how Tagdal nominalises verb roots, starting with those of Tuareg origin in Section 0, then continuing with Songhay cognates in section 0. By the end of this section, it will be clear that Tagdal has different strategies for nominalisation, depending on the etymology of the root in question.

Tuareg roots

Tagdal has various means of nominalising roots of Tuareg origin. The most common is by means of the prefixes *a-* and *t-*. Another common means is to utilise the Agentive prefix *ma-*, or its allomorph *na-*. Both of these are discussed below.

Morphological

One common means of forming nouns out of verb roots of Tuareg etymology is by means of the prefixes *a-* and *t-*. Table 3-32 shows some examples of roots that are nominalised with *a-*.

Table3-32 Tuareg roots nominalised with a-

	verb	gloss	noun	gloss	plural
1	əbbə́rgən	'show off'	abbárgan	'showing off'	ibárgaanan
2	ə́ḍḍəz	'be tired'	áḍḍaz	'being tired'	íḍḍaazan
3	ə́ddərər	'have need'	addóror	'need'	idórooran
4	ə́gməm	'chew tobacco'	aggámmam	'act of chewing tobacco'	igámmaamen
5	ə́ħlək	'destroy'	áħluk	'destruction'	íħluukan
6	ə́ħkəm	'reign'	alħókum[57]	'government'	alħókkuumen
7	ə́ngər	'lean against sthg'	annágar	'leaning against sthg'	inággaaran
8	ə́rtək	'fall over'	arátak	'falling over'	iráttaaken
9	də́ləg	'decorate'	addə́ləg	'decoration'	idə́lləgan
10	ʒə́nnaɣnaɣ	'tremble'	aʒénnaɣnaɣ	'trembling'	iʒənáɣnaaɣan
11	ʒéwwab	'respond'	alʒéwab	'response'	alʒéwwaaban
12	qáyyət	'chase'	áqqaayət	'search for criminals'	iqáyyətan
13	sə́bbəkəd	'do sin'	abbákkad	'sin'	ibákkaadan

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[57] *alħókum*, the noun form of *ə́ħkəm* 'reign' is actually of Arabic origin. The same goes for *ʒéwwab* 'respond' and *alʒéwab* 'response'.

14	sə́gruurus	'make mewling camel sound'	agərúrus	'mewling sound of camel'	igərúruusen
15	sə́ɣray	'teach'	assə́ɣray	'teaching'	isə́ɣraayan
16	səmə́ddərən	'think, ponder'	assəmə́drən	'meditation'	isəməmə́drənan
17	sə́nnəfrən	'choose'	annáfran	'choise'	ináfraanen

It is interesting to note that none of these instances of derived nouns ends with the plural morphemes -*wan* or -*tan*. The latter if fairly easy to explain, since -*tan* is often used to pluralise foreign borrowings. However, the absence of -*wan* is more difficult to explain and requires more study. Table 3-33 demonstrates some examples of Tuareg nominalised roots that begin with *t-*.

Table 3-33 Tuareg roots nominalised with t-

	verb	gloss	noun	gloss	plural
1	ə́dləm	'persecute'	tádləm	'persecution'	ʃídləmman
2	ə́dru	'eat together'	tádrut	'eating together'	ʃídruuten
3	ə́dwəl	'grow up'	táddawla	'growing up'	ʃidáwlaatan
4	ə́gra	'understand'	taggə́rraw[58]	'understanding'	ʃigə́rraawan
5	ə́grək	'polite burp after meal'	tágrak	'polite burping after meal'	ʃigraaken
6	ə́ɣfər	'rent'	táɣfər	'renting'	ʃíɣfəren
7	ə́ɣsər	'make a mess'	taɣɣáysar	'mess'	ʃiɣássaaren
8	ə́ʒʒərgen	'make dirty'	taʒʒárgan	'filthiness'	ʃiʒárgaanen
9	ənnə́flay	'be rich'	tanáflit	'prosperity'	ʃinə́fliiyen
10	ə́qqərət	'scream'	taɣárit	'screaming'	ʃiɣáriitan
11	ə́zzər	'lead'	tazzárat	'beginning'	ʃizáraatan
12	də́wwəkʃəʃ	'be happy'	tadə́wwəkʃəʃ	'happiness'	ʃidə́wwəkʃəʃ
13	gárʃak	'do evil eye'	tággarʃak	'evil eye'	ʃigárʃaaken
14	mə́dɣər	'paste together'	tamádɣar	'glue'	ʃimádɣaaran
15	yáhu	'be born'	táhut	'birth'	ʃíhhuutan

Agentive *-ma*

If a root is of Tuareg or Arabic origin, the prefix *ma-*, or its allomorph *na-* if /b/, /f/, /h/, /ʒ/, /l/ or /m/ exists in the root, can attach directly onto the root, along with other nominal affixes. The resulting noun means someone or something that performs the

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[58] This needs to be compared with another noun, *aggə́rri* 'wisdom'. There is a likely connection between them, but this is beyond the scope of this study.

action of the root in question. The strategy is for *a-* or *t-* to appear before the Agentive *ma-,* with the initial *m* geminating unless stress occurs in the antepenultimate syllable, as figure 3-6 below demonstrates.

Figure 3-6 structure of the nominalised root with *-ma*/*-na* prefix

nominalising prefix	AGENTIVE	root	PL
a-/t-	ma- / na-		*-an/-wan/-en/-tan*

As roots of Tuareg origin gain syllables as a result of adding morphemes, the resulting construction will retain the same rules of stress, vowel elongation and consonant elongation discussed in Section 3.1.2. Table 3-34 demonstrates a few of these nouns of Tuareg origin, as they occur with roots of two syllables.

Table 3-34 Tuareg verb roots with two syllables, no other prefixes, taking ma- Agentive

	verb root	gloss	w/ agentive	gloss	plural
1	ə́ddəd	'press down'	ammádad	's-one who presses down'	imáddaadan
2	ə́ddəg	'lead'	ammádag	'leader'	imáddaagan
3	ə́dɣər	'to stick, glue'	ammádɣar	'glue'	imádɣaaran
4	ə́ddən	'graze'	ammáddan	'animal grazing'	imáddiigan
5	ə́ddər	'live'	ammúddar	'animal'	imúuddaaran
6	ə́drər	'need'	ammádrar	's-one in need'	imádraaran
7	ə́ddərəz	'leave traces'	ammádraz	'tracker'	imádraazan
8	ə́ḍḍəz	'be tired'	ammáḍḍaz	'tired person'	imáḍḍaazan
9	ə́dgət	'jump in pain/surprise'	amádgat	's-one jumping in pain/surprise'	imádgaatan
10	ə́dhəl	'be useful'	ammádhal	'helper'	imádhaalen
11	ə́ɣray	'study'	ammáɣray	'student'	imáɣraayan
12	ə́flay	'be rich'	annáflay	'rich man'	ináflaayan
13	ə́gyək	'work in a field'	ammágyak	'farmer'	imagíyyaakan
14	ə́gyət	'testify'	ammagíyyat	'witness'	imagíyyaatan
15	ə́kʃəf	'discover'	ammákʃaf	'discoverer'	immákʃaafan
16	ə́nsay	'beg'	ammánsay	'beggar'	immánsaywan
17	ə́lkək	'weak'	ammálkak	'weakling'	immálkaakan
18	ə́ŋgəd	'put on turban'	ammáŋgad	'young man, recently received turban'	immaŋgaaden
19	ə́rɣəm	'scold'	ammárɣam	'scolder'	immárɣaaman
20	ə́ʃrəɣ	'to judge'	ammáʃraɣ	'judge'	imáʃraaɣan
21	ə́ṭkəl	'lift up'	ammáṭkul	'one lifted up'	imáṭkaalan
22	ə́stər	'be discreet'	ammástur	's-one discreet'	imástuuran
23	ə́wəɣ	'dance'	ammáwaɣ	'dancer'	imáwwaaɣan
24	ə́xlək	'create'	ammáxlak	'creator'	immáxlaakan

25	ə́zrəg	'draw water for animals'	annázrag	's-one who draws water for animals'	inázraagan
26	ə́ɣray	'learn'	ammáɣray	'student'	imáɣraayan
27	ə́zri	'replace'	ammázri	's-one who replaces'	imázraayan
28	də́lləg[59]	'decorate'	ammádlag	'decorator'	imádlaagan
29	zéyyad	'add, increase'	ammázyad	'extra person'	imázyaadan

The same pattern of stress placement and vowel and consonant elongation occurs with roots that have more than two syllables, as Table 3-35 demonstrates.

Table 3-35 Tuareg verb roots with three or more syllables, no other prefixes, taking ma-Agentive

	verb root	gloss	w/ agentive	gloss	plural
1	ə́ffəga	'discover'	anáffəga	'discoverer'	inafə́ggaanan
2	əmmə́gən	'eat evening meal'	annammágan	's-one eating evening meal'	inamággaanan
3	ə́rəkkam	'be weak'	ammárkam	'weakling'	imárkaaman
4	ə́rəkkan	'change direction'	ammárkan	's-one changing direction'	imárkaanen
5	ə́riiyəd	'release suddenly'	amáriiyyad	'prisoner released from prison unexpectedly'	imaríyyaadan
6	ərrə́ẓərəz	'break w/ force'	amarrə́ẓẓəraz	'sthg broken w/ force'	imarrə́ẓraazan
7	əzəgə́rəlləz	'move slightly in sitting position'	annazgárlaz	's-one moving slightly in sitting position'	inazgárlaazan
8	bə́riiyyət	'throw sthg @ target'	annabbáryat	's-one throwing sthg @ target'	inabáryaatan
9	bə́ttəqət	'completely ruin'	annabátqat	's-one who has been badly hurt in accident'	inabátqaatan
10	fə́kfərkər	'shake violently'	anafə́kkərkər	'person shaking	inafəkə́rkəran

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[59] Numbers 28 and 29 are exceptional, in that the root does not begin with ə-. However, in other respects they do conform to the overall rule of stress placement and elongation.

			violently'	
11	ʒə́ʒʒərgən	'make dirty'	anaʒə́ʒʒərgan 'unclean person'	inaʒəʒə́rgeenan
12	sə́bbəkəd	'sin'	annasbákkad 'sinner'	inasbákkaadan
13	sə́bbooka	'perform shamanism'	anásbooka 'shaman'	inasbókkaadan

In principle, any verb root of Tuareg origin with derivational affixes can be nominalized as well.[60] By far, the most common occurrence of this involves verb roots with the causative prefix *s-* and its allomorphs. In general, if the verb root being nominalised has derivational prefixes attached, the nominalising affixes will attach, and the normal rules of stress placement and vowel and consonant elongation described in Section 0 will apply. One key difference between agentive nouns with derivational affixes and those without is that those with derivations affixes generally do not undergo vowel changes. Table 3-36 has some common examples of nominalised verb roots of Tuareg origin with the Causative *s-* and its allomorphs.

Table 3-36 Tuareg roots with ma- Agentive, derivational morphemes on the root: Causative

verb root w/ derivational morpheme	gloss	singular w/ Agentive	gloss	plural w/ Agentive
1	zə́bzəg	'drive people crazy'	annazə́bzəg	's-one who drives others crazy'	inazə́bzəggan
2	sə́ddəkud	'cause to measure'	amasə́ddəkud	's-one who orders measurements to be made'	imasədə́kkuuden
3	sə́ddən	'cause animals to be taken to pasture'	ammasə́dən	's-one who sends animals to be taken out to pasture'	imasə́ddənen
4	sə́dwəl	'provide for s-one else to raise up'	ammasə́dwəl	's-one who helps to raise up'	imasə́dwəllen
5	sə́ɣray	'teach'	ammasə́ɣray	'teacher'	imasə́ɣraayan
6	ʃə́ʃʃək	'doubter'	ammaʃə́ʃək	's-one who raises doubt'	imaʃə́ʃʃəken
7	sə́ssəs	'cause to bind up tightly'	ammasə́səs	's-one who causes to bind up tightly'	imasə́ssəsan

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[60] See Section 0 for a discussion of derivational affixes in Tagdal.

8	ʒə́rʒəɣ	'cause to bless'	annaʒə́rʒəɣ	's-one who pays for blessings for others'	inaʒə́rʒəɣɣan
9	sə́trəb	'cause to do quickly'	ammasə́trəb	'person who works quickly'	imasə́trəbban
10	sə́hhosay	'cause to be beautiful'	amasə́hhosay[61]	'person who works in beauty'	imasəhóssaayan
11	sídəd[62]	'cause to follow closely'	ammasídəd	'person sends s-one else to follow closely'	imasíddəden
12	síləs	'cause to repeat'	ammasíləs	'person who causes to repeat'	imasílləsen
13	ʒə́ʒʒərrəb	'cause to taste'	anaʒə́ʒʒərrəb	's-one who causes s-one else to taste'	inaʒəʒə́rrəban
14	ʒə́ʒʒəd	'force to bow down'	amaʒə́ʒʒəd	's-one who forces to bown down'	imaʒə́ʒʒədan
15	ʒəʒéwab	'cause to answer'	annaʒəʒéwab	's-one who causes to answer'	inaʒəʒéwwaaban
16	ʒəʒíbbəgbəg	'cause to puff up'	anaʒəʒíbbəgbəg	'flatterer'	inaʒəʒíbbəgbəg
17	zə́zri	'cause to replace'	ammazə́zri	's-one who causes to replace'	imazə́zraayan

In principle, any verb root of Tuareg origin with the Reciprocal affix *nəm-* can be nominalised, though actual instances are relatively rare. The resulting noun takes the

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[61] Since in Agdal culture, people who work in beauty shops are usually women, this word would normally have the feminine prefix *t-*. The resulting noun would be *tamasə́hhosay* 'woman who works in a beauty', with the plural being *ʃimasəhóssaayan*. However, for the sake of simplicity, I left the feminine prefix out. The male equivalent is *ʃab koy*, literally 'shaver' (see Table 3-40), a man who travels between various encampments offering beautifying services to men, especially shaving and cutting hair.

[62] In examples 11 and 12 the roots in question begin with the vowel /i/.

meaning of, approximately, 'people who are doing action X to each other or together'. Stress usually falls on the antepenultimate syllable, especially if it contains the derivational affix, and follows the normal pattern for vocabulary of Tuareg origin described in Section 0. Due to the nature of the Reciprocal, these nouns are plural by default. Table 3-37 shows some examples.

Table 3-37 Tuareg verb roots with ma- Agentive, with other derivational morphemes on the root: Reciprocal

	root	gloss	w/ derivational morpheme	Gloss	w/ Agentive
1	ə́ħkəm	'destroy'	nə́mməħkəm	'destroy each other'	inəmə́ħkəmmen
2	ə́gɣəl	'be faithful'	nə́mmədɣəl	'be faithful to each other'	imanə́mmədɣəl[63]
3	ə́ffəd	'borrow'	nə́mməfəd	'borrow from each other'	inanəmə́ffəden
4	ə́frəz	'separate'	nə́mməfrəz	'separate from each other'	inanəmə́frəzzan
5	ə́gra	'understand'	nə́mməgra	'understand each other'	imanəmə́graanan
6	ə́lləd	'put arms around'	nə́mmələd	'put arms around each other'	inanəmə́llədan
7	ə́zzəl	'hand sthg over w/ hand outstretched'	nə́mzəzzəl	'hand sthg over to each other'	imanəmzə́zzəlan
8	sə́sləm	'greet'	nə́msəsləm	'greet each other'	imanəmsə́sləmmen
9	ʒə́ʒʒəl	'pull hand-over-hand'	nə́mʒəʒʒəl	'pulling s-one out of a hole hand-over-hand w/ rope'	inanəmʒə́ʒʒəlen

In the same way, any verb root of Tuareg origin with the Passive affix *təw-* can be nominalised, though actual instances are relatively rare. The resulting noun means, approximately, 'person who is undergoing action X'. Stress falls on the syllable with the *təw-* prefix, and follows the familiar patterns for Tuareg vocabulary described in Section 3.1.2, as Table 3-38 demonstrates.

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[63] This example is exceptional because in its nominal form it does not take the plural suffix – *en/-an*.

Table 3-38 Passive Tuareg verb roots, ma- Agentive, other derivational morphemes:

	verb root w/ derivational morpheme	gloss	singular w/ Agentive	gloss	plural w/ Agentive
1	tə́wwəzlay	'differentiated'	amatə́wwəzlay	'person who was left out'	imatəwə́zlaayyan
2	tə́wwəṭkəl	'taken'	amatə́wwəṭkəl	'kidnapped person'	imatəwə́ṭkəllan
3	tə́wwəzma	'squeeze'	amatə́wwəzma	'squeezed person'	imatə́wwəzman
4	tə́wwəxfəl	'locked'	amatə́wwəxfəl	'person locked up'	imatəwə́xfəllan
5	tə́wwədhəl	'helped'	amatə́wwədhəl	'person helped'	imatəwə́dhəllan
6	tə́wzəzlay	'caused to be differentiated'	amatə́wzəzlay	'person caused to be left out'	imatəwzə́zlaayan

It is not unknown for an Agentive noun to be formed with two or more derivational morphemes. In general, these follow the stress and syllable formation rules found in Section 3.1.2, as well as the normal order for multiple derivational prefixes found in Section 3.1.2. Table 3-39 demonstrates.

Table 3-39 Tuareg verb roots with two or more derivational prefixes, ma- Agentive

	verb root w/o agentive	gloss	root with multiple derivational prefixes	Combination of derivational affixes	gloss
1	ə́ɣray	'learn'	amasə́ssəɣray	CAUS, CAUS	'one who causes teaching (i.e. school administrator)'
2	ə́ɣray	'learn'	amatəwə́ssəɣray	PASS, CAUS	'one who is caused (forced?) to learn'[64]

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[64] The image here is of students who are held prisoners in school and forced to learn.

3	ʃíkəl	'travel'	imasənəmʃákkuulen	CAUS, REC	'ones who are caused to travel together'
4	kə́rəd	'tie up, hobble'	imatəwməmsəkə́rəddan	PASS, REC, CAUS	'ones who are caused to be tied up together (i.e. as prisoners)'
5	mə́lləɣət	'race'	imanəmsəmələ́ɣɣəten	REC, CAUS	'ones who race together'
6	mə́lləɣət	'race'	amasəsəmə́lləɣət	CAUS, CAUS	'one who causes the race to occur (i.e. racing organiser)'
7	sə́gla	'go'[65]	imatəwnə́msəglen	PASS, REC, CAUS	'ones who were sent together'

Songhay roots

In most cases, Songhay and Tuareg roots are relatively easy to distinguish from each other in Tagdal. This section includes a brief discussion of Songhay verb roots, including how to determine whether most roots are nouns or verbs. The discussion of how roots of Songhay origin are nominalised with the suffix *-en* continues, as well as how Songhay cognates form Agentive nouns.

Determining verb vs noun

Since Songhay roots have little or no morphology to speak of in Tagdal, in most cases it is the location in the clause or sentence that determines whether a particular item is a noun or a verb. Nominalised verb roots of Songhay origin will be otherwise indinstinguishable from verbs, except for their distribution in the clause or sentence. In Examples 3.1 through 3.3, those marked with *a* will contain an example where the root distributes like a typical verb, while *b* will include examples where the root will distribute like a noun.

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[65] Examples 7 is formed from the suppletive Tuareg forms of the Songhay *koy* 'go'. (See Section 0.)

3.1a   sa ni**té**, iiriguuna-a harwá.

sa	ni=	te	iiri=	guuna	=a	harwa
SBDR	2SG	arrive	1PL	see	3SG	still

'When you arrived, we were still watching it (the movie).'

3.1b   har nin **te**.

har	ni=	n	te
until	2SG	GEN	arrive

'Until you arrive.' (i.e. 'I'll see you when you get here.')

3.2a   iiri**yeeʒíi**kaat-i ənda nin ʃaaráyyen.

iiri=	yeeʒi	kat	=i	ənda	ni=	n	ʃaarayyen
1PL	return	VEN	3PL	with	2SG	GEN	friends

'We sent them back with your friends.'

3.2b   **yeeʒíi**kaat-a asəkóy hínʒin ha!

yeeʒi	kat	=a	a=	səkoy	hinʒin	ha
return	VEN	3SG	3SG	NEG.FUT	fix	thing

'Returning it isn't going to fix a thing!'

3.3a   ɣatə**kóy** Táhoua ənda-a.

ɣa=	tə-	koy	Tahoua	ənda	=a
1SG	FUT	go	Tahoua	with	3SG

'I will go with her to Tahoua.'

3.3b   insəkóy da waalá ha fo ənda **kóynan**.

ni=	səkoy	da	waala ha fo	ənda	koy	-nan
2SG	FUT.NEG	do	absolutely nothing	with	go	ALL

'You won't accomplish absolutely anything by going over there.'

Nominalising suffix -*yén*

A limited number of roots of Songhay etymology are nominalised by means of a suffix -*yén*, where the stress shifts to the syllable with the suffix and the initial /y/ in the suffix elongates, rather than the initial vowel. They are *bay* 'know', *bun* 'die', *may* 'have' and *wi* 'kill'.[66] Table 3-40 demonstrates how these are nominalised.

Table 3-40 Songhay roots nominalised with -yén

	root	gloss	nominalised root	gloss
1	bay	'know'	bayyén	'knowledge'
2	bun	'die'	buyyén	'death'

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[66] I make no claim to this being an exhaustive list; there may be other roots nominalised by this means, of which I am currently unaware.

| 3 | may | 'have' | mayyén | 'ownership' |
| 4 | wi | 'kill' | wiyyén | 'killing' |

The rather limited distribution of this construction indicates that they may form a special case. However, for the moment this matter requires further study.

Agentive koy

By far the majority of Songhay verb roots in Tagdal are nominalised by means of an Agentive using the noun *koy*, literally 'lord' or 'master'. In principle, most any root of Songhay etymology can be nominalised in this manner, except for those which take the nominaliser *-yén*. Table 3-41 demonstrates a few common examples.

Table 3-41 Songhay roots nominalised with koy 'master'

	root	gloss	nominalised root	gloss
1	bis	'surpass'	bis koy	'the best'
2	daɣná	'forget'	daɣná koy	'forgetful person'
3	gab	'be inflexible'	gab koy	'stubborn person'
4	gar	'guard'	gar koy	'person who guards'
5	hárhor	'laugh'	hárhor koy	'funny person'
6	hurrú	'seek'	hurrú koy	'seeker'
7	je	'speak'	je koy	'speaker'
8	kəmmá	'find'	kəmmá koy	'finder'
9	kud	'herd'	kud koy	'shepherd'
10	nas	'be fat'	nas koy	'fat person'
11	qos	'cut'	qos koy	'cutter'
12	ʃab	'shave'	ʃab koy	'man who travels between encampments offering services to make men attractive'
13	zay	'steal'	zay koy[67]	'thief'
14	zúuru	'run'	zúuru koy	'fast runner'

The Agentive *koy* can also apply to the roots in Table 3-39, as Table 3-42 indicates.

Table 3-42 Songhay roots nominalised with -yén, with Agentive koy

	root	gloss	nominalised root	gloss
1	bayyén	'knowledge'	bayyén koy	'diviner'
2	buyyén	'death'	buyyén koy	'master of death'
3	mayyén	'ownership'	mayyén koy	euphemism for God (lit. 'owner of everything')

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[67] Younger Tagdal speakers tend to use the Tuareg cognate *abáydəg* 'thief'.

4	wiyyén	'killing'	wiyyén koy	'assassin'

koy 'master' can also be combined with nouns of either Tuareg or Songhay etymology, in order to indicate either Ownership or to indicate some kind lf relationship to the semantic properties of the noun in question, as Table 3-43 demonstrates.

Table 3-43 koy 'master' with nouns

	noun	gloss	combination	gloss
1	ámṇəs	'camel'	ámṇəs koy	'camel owner'
2	bayna	'slave'	báyna koy	'slave owner'
3	fíiʒi	'sheep'	fíiʒi koy	'sheep owner'
4	isúdar	'food'	isúdar koy	'chef'
5	ʒúula	'commerce'	ʒúula koy	'merchant'
6	táayde	'personality'	táayde koy	'popular person'
7	tágmar	'hunting'	tágmar koy	'good hunter'

3.2   When to use Songhay and Tuareg vocabulary

Tagdal has certain occasions in which Songhay or Tuareg cognates are the correct correct. In most cases, the default vocabulary will be of Songhay origin, while Tuareg cognates are used when more information is necessary.

3.2.1 Generic vs. specific

One of the main functions of Songhay versus Tuareg cognates has to do with determining generic versus specific. The generic vocabulary item will almost always be of Songhay origin, while Tuareg vocabulary is used for specification. It is also a matter of domains of language use. Since Tagdal speakers are essentially part of the Tuareg socio-economic sphere, most of the overall lexicon is of Tuareg origin. Table 3-44 gives just a few examples.

Table 3-44 Generic Songhay, specific Tuareg

	generic noun	gloss	specific noun	gloss
1	kámba	'hand, arm'	áɣɣəl	'right hand'
			zə́lgət	'left hand'
			táɣmur	'elbow'
			ammánsur	'forearm'
			tagə́ltəm	'upper arm'
2	hinʃiiní	'goat'	azzólaɣ	'adult male goat'
			áynəs	'baby goat'

			asságay	'6-12 month old goat'
			éɣayd	'young goat'
			afféli	'newborn goat'
3	hánʃi	'dog'	abbə́rʒia	'hunting dog'
			abbáykor	'street dog'
			áykar	'puppy'
4	ízze	'child'	bárar	'boy'
			aggúgəl	'orphan'
			ammáwa	'adolescent'
			áwta	'youngest child'
			abbíyyaw	'pre-teen'

Two possible exception to this otherwise general rule of Songhay generic, Tuareg specific. First, the Tuareg generic word *ámṇəs* 'camel', plural *imṇəs*, with the Songhay cognate *yu* 'adult female camel' and its plural *yúwwan*. Otherwise, however, all other nouns for camels in Tagdal are of Tuareg origin. Second, Songhay has two words for sibling: *káyna* 'younger sibling, plural *kaynén* and *ber* 'older sibling', plural *beerén*. The Tuareg equivalent is *aʃʃáqeq* 'brother', which can only specify as far as masculine or feminine (see next section).

3.2.2 Masculine vs. feminine

As a further specification, Tuareg nouns can also differentiate between masculine and feminine, as Table 3-45 demonstrates. The feminine affix is *t-* (see Section 0), and the nouns in question follow the general rules of stress, word formation, consonant and vowel length, etc... described in Section 3.1.2. Unlike Tuareg languages, no grammatical agreement is required between masculine and feminine.

Table 3-45 Masculine vs. feminine, Tuareg nouns

	masuline noun	gloss	feminine noun	gloss
1	abbə́rʒia	'hunting dog (m)'	tabbə́rʒiat	'hunting dog (f)'
2	abbáydəg	'thief (m)'	tabbáydəg	'thief (f)'
3	abbóbaz	'cousin (m)'	tabbóbaz	'cousin (f)'
4	addágal	'father-in-law'	taddágal	'mother-in-law'
5	affarɣas	'desert tortoise (m)'	taffárɣas	'desert tortoise (f)'
6	allə́lli	'noble free man'	tallə́llit	'noble free woman'

7	ammáwaḍ	'adolescent (m)'	tammawat	'adolescent (f)'
8	ammadə́rɣəl	'blind man'	tammadə́rɣəl	'blind woman'
9	ammanókal	'king'	tammanókal	'queen'
10	ammáɣaay	'porcupine (m)'	tammáɣaay	'porcupine (f)'
11	ámɣar	'old man'	támɣar	'old woman'
12	aʃʃáqeq	'brother'	taʃʃáqeq	'sister'
13	áwta	'youngest boy'	táwtat	'youngest girl'
14	bágzan	'show horse (m)'	tabágzan	'show horse (f)'
15	móknud	'dwarf (m)'	tamóknud	'dwarf (f)'

3.2.3 Large vs. small

The Tuareg prefix t- can also function to distinguish between large and small nouns, as Table 3-46 demonstrates.

Table 3-46 Large vs. small, Tuareg nouns

	masuline noun	gloss	feminine noun	gloss
1	abbə́raɣbəraɣ	'applause'	tabbə́raɣbəraɣ	'light, polite applause'
2	áḍḍaz	'fatigue'	táḍḍaz	'slight tiredness'
3	áɣrəm	'town'	táɣrəm	'village'
4	áftək	'cloak'	táftək	'short cloak'
5	agírrəmrəm	'complaint'	tagírrəmrəm	'minor complaint'
6	akkábbar	'bowl'	takkábbar	'small bowl'
7	akkáʃwar	'mountain'	takkáʃwar	'hill'
8	allággaz	'watermelon'	tallággaz	'small watermelon'
9	arkánay	'suffering'	tarkánay	'slight difficulty'
10	assámməd	'leather sack'	tassámməd	'small leather sack'
11	attə́kkən	'clay water container'	tattə́kkən	'small clay water container'
12	azzə́ggəz	'knife'	tazzə́ggəz	'dagger'

3.3   Adjectives, adverbs

3.3.1 Adjectives

In Tagdal, adjectives typically match the nouns they modify in number, either singular

or plural. There is no grammatical gender. Since the morphological behaviour of adjectives depends heavily on the etymology of the root, this section first cover adjectives of Songhay origin, followed by those of Tuareg origin. Special attention will be paid to how adjectives are formed morphologically from roots.[68]

Songhay

The adjectivising suffix is *-an* or *-nan*, if the root ends in a vowel. Stress will remain in the original syllable in the singular. In their plural form stress will shift to the syllable with the plural adjectiviser *-en* or *-nen*. Table 3-47 demonstrates some common adjectivised roots of Songhay origin.

Table 3-47 adjectives, Songhay cognates

	Root (noun, verb)	gloss	w/ adjvr, singular	gloss	w/ adjvr, plural
1	buuhú	'burlap' (noun)	buuhúunan	'made of burlap (sg)'	buuhuunén
2	deegí	'to hang'	deegíinan	'hanging'	deegiinén
3	fáarad	'to sweep'	faráadan	'swept away (sg)'	faaradnén
4	fas	'to dig'	fáasan	'dug up (sg)'	fasnén
5	fik	'to bury'	fíikan	'buried (sg)'	fiknén
6	fuufú	'to be cold'	fuufúunan	'cold (sg)'	fuufuunén
7	fuunús	'to light on fire'	fuunúusan	'lit on fire (sg)'	fuunusnén
8	gar	'to guard'	gárnan	'guarded (sg)'	garnén
9	gúugut	'polish'	gúuguutan	'polished (sg)'	guugutén
10	ʒe	'be old'	ʒaanúunan	'old'	ʒaanuunén
11	kəkáy	'to build'	kəkáynan	'built (sg)'	kəkaynén
12	kuukú	'be long'	kuukúunan	'long (sg)'	kuukén
13	mor	'be far'	móornan	'far'	moornén
14	mun	'to spill'	múunan	'spilled (sg)'	muunén
15	nam	'to bite'	náaman	'bitten (sg)'	naamén
16	ʃiidi	'to be red'	ʃiidiinan	'red (sg)'	ʃiidiinén
17	warɣá	'be large'	warɣá	'large'	warɣén

A few Songhay roots do not take any adjectiver in the singular form, but do take an adjectiviser in their plural, with stress shifting to the syllable with the adjectiviser. Table 3-48 demonstrates.

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[68] The line between adjectives, relative clauses and verbs in Tagdal is quite opaque, and the three categories have a number of overlapping functions. However, here, I will only cover morphological issues relating to adjectives.

Table 3-48 adjectives, Songhay cognates w/ no adjvr in singular form

	Root (noun, verb)	gloss	w/ adjvr, singular	gloss	w/ adjvr, plural
1	biibí	'be black'	biibíi	'black'	biibén
2	dúŋguuru	'be short'	dúŋguuru	'short'	duŋguurén
3	hiimí	'to clean'	hiimí	'cleaned'	hiimiinén
4	warɣá	'be large'	warɣá	'large'	warɣén

A few adjective forms tend to be irregular. In Table 3-49, Examples 1 through 3 take both the Songhay adjectivising suffix *-u* or *-i*, plus *-an*. Examples 4 and 5 have reduplication. These examples loosely match those appearing in Christiansen-Bolli (2010: 134, 135), though not all of the cognates there match what occurs in Tagdal. For example, Example 13 in Table 3-46 in Tadaksahak would be *mormoríinan* 'far' (ibid), not *mórnan*.

Table 3-49, irregular adjectives of Songhay origin

	Root (noun/verb)	gloss	w/ adjvr, singular	gloss	w/ adjvr, plural
1	ʒen	'be old'	ʒaanúunan	'old'	ʒaanuunén
2	nas	'be fat'	naasúunan[69]	'fat'	naasuunén
3	qoq	'be dry'	qooɣíinan	'dry'	qooɣiinén
4	qos	'cut'	qósqoosan	'cut'	qosqoosén
5	was	'boil'	wáswaasan	'boiled'	waswaasén

Tuareg

Just like adjectives of Songyay origin, those of Tuareg origin will match the noun they are modifying in number. However, there are some key differences between the way that Tagdal treats adjectives derived from roots of Tuareg origin, from those of Songhay origin. First, stress in adjectives derived from Tuareg roots will tend to occur in either the penultimate or antepenultimate syllable. Second, the vowel in the stressed syllable will usually be long, at least in the singular form, unless it is /ə/. Third, stress will not shift in the plural form, unless maintaining it where it is would cause it to fall before the antepenultimate syllable. Fourth, the default plural adjectiviser is *-nen* or *-nan*, not *-en*.

The adjective of Tuareg origin, described in Figure 3-7, begins with the Subject Relative prefix *ə-*.[70] If the Tuareg root begins with /ə/, an epenthetic /y/ will be inserted, which will cause the initial /ə/ in the root to shift position to [ɨ].[71] The

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[69] A few speakers I have heard use the form *naasén* 'fat', though *naasúunan* seems to be more common. This requires more study.

[70] The relation between the Subject Relative marker *ə-* and the participle in Berber languages, discussed briefly in the next chapter, is something that will require more study.

[71] Like Christiansen-Bolli, I represent this orthographically here as /i/ for the sake of simplicity.

adjectivising suffix follows, either *-an* or *-nan* in the singularor *-en* or *-nen* in the plural.

Figure 3-7 adjevtive morphology, roots of Tuareg origin that begin with *-ə*

Subject Relative	verbal prefix (if begins with *-ə*)	root	adjr
ə-	y-		*-nen*

Table 3-50 demonstrates some examples of adjectives derived from two-syllable Tuareg roots.

Table 3-50 adjectives, Tuareg cognates, two syllables

	Root (noun, verb)	gloss	w/ adjvr, singular	gloss	w/ adjvr, plural	gloss, PL
1	ə́ddəd	'to press down'	əyidáadan	'pressed down (sg)'	əyidádnen	'pressed down (pl)'
2	ə́ddər	'to live'	əyiddáaran	'alive (sg)'	əyiddárnen	'alive'
3	ə́drər	'to need'	əyidráaran	'needed (sg)'	əyidrárnen	'needed (pl)'
4	ə́hhəd	'to swear, give oath'	əyiháadan	'pertaining to an oath (sg)'	əyihádnen	'pertaining to an oath (pl)'
5	ə́ffər	'to promise'	əyiffáaran	'promised (sg)'	əyiffárnen	'promised (pl)'
6	ə́ṭkəl	'to lift up'	əyiṭkáalan[72]	'lifted up (sg)'	əyiṭkálnen	'lifted up (pl)'
7	ə́ŋkəd	'be careful'	əyiŋkáadan	'carefully (sg)'	əyiŋkádnen	'carefully (pl)'
8	ə́qqəb	'to traverse'	əyiqqáaban	'traversed (sg)'	əyiqqábnen	'traversed (pl)'
9	ə́qqəl	'to wait'	əyiqqáalan	'waited for (sg)'	əyiqálnen	'waited for (pl)'
10	ə́ṭkəl	'to lift up'	əyiṭkáalan	'lifted up (sg)'	əyiṭkálnen	'lifted up (pl)'
11	əzzár	'be first, lead'	əyizzaáran	'leader (sg)'	əyizzárnen	'leader (pl)'
12	ə́zma	'squeeze'	əyizmáayan	'squeezed (sg)'	əyizmáynen	'squeezed (pl)'
13	ə́zri	'replace'	əyizráayan	'replaced (sg)'	əyizráynen	'replaced'
14	kə́rəd	'to tie hands together'	əkráadan	'having hands tied together	əkrádnen	'having hands tied together

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[72] This example is unusual, in that in its singular form, stress shifts from the original syllable.

				(sg)'		(pl)'
15	mə́ʒʒəq	'to debate'	məʒʒáaɣan	'debated (sg)'	məʒʒáɣnen	'debated (pl)'
16	zə́ddəg	'be holy'	zəddíigan	'holy (sg)'	zəddə́gnen	'holy (pl)'

Table 3-51 demonstrates examples of adjectives derived from roots with three or more syllables.

Table 3-51 adjectives, Tuareg cognates, three or more syllables

	Root (noun, verb)	gloss	w/ adjvr, singular	gloss	w/ adjvr, plural	gloss, PL
1	bə́ttəqət	'ruin completely'	bəttəqqáatan	'completely ruined'	bəttəqqáatnen	'completely ruined (pl)'
2	əddə́rɣəl	'be blind'	əyiddərɣáalan	'blinded'	əyiddərɣáalnen	'blinded (pl)'
3	əffə́rəz	'separate'	əyiffərzáaran	'separated'	əyiffərzáarnen	'separated (pl)'
4	ərrə́rəggət	'chase down w/ force'	ərrərəggáatan	'chased down w/ force'	ərrərəggáatnan	'chase down w/ force (pl)'
5	wánniifat	'look for sthg put down earlier'	wanifáatan	'searched for, put down earlier'	wanifátnen	'searched for, put down earlier (pl)'

A few irregular roots of Tuareg origin take the plural adjectiviser -en. Table 3-52 demonstrates some of these.

Table 3-52 adjectives, irregular Tuareg cognates, plural advr -en, other

	Root (noun, verb)	gloss	w/ adjvr, singular	gloss	w/ adjvr, plural	gloss, PL
1	ə́bbər	'scratch'	əyibráaran	'scratched'	əyibráaren	'scratched'
2	benná	'be good for nothing'	bennán	'good for nothing'	bennén	'good for nothing'
3	də́lbəb	'be fat'	də́lbəbban	'fat'	də́lbəbben	'fat'

4	də́rən	'to desire'	də́ran	'wished for'	də́raanen	'wished for'
5	hóssay	'be beautiful'	hóssaayan	'beautiful'	hóssaynen	'beautiful'
6	miiʒí	'to separate'	miiʒán	'separated'	miiʒén	'separated'
7	mə́lluulu	'to shine'	mə́lluulan	'shiny'	məllúulen	'shiny'

3.3.2 Adverbs

True adverbs form a fairly closed system, indicating additional spatio-temporal and manner information to the Verb Phrase. Table 3-53 indicates the adverbs in Tagdal and their function.

Table 3-53 adverbs in Tagdal

manner		spatio-temporal	
tármat	'quickly'	meeraddaaɣóoda	'this very instant'
wúllen	'much, very'	ne / néeda	'here'
səllán	'slowly'	ʃen / ʃénda	'there'
		kanʒin	'before'

Tagdal has a number of other time expressions, such as the connector *haʒinaláqqam* 'after that'. For example, *meerá* 'now' is a connector with both spatio-temporal and syntactic functions, and will be discussed in the following chapter.

3.4   Adpositions

Tagdal has only one preposition, the instrumental or accompaniment marker *nda*, while all others are postpositions. Adpositions are usually preceded by either a Noun Phrase, pronoun or proclitic. Or in the case of *nda*, the NP follows. In cases where the NP does not need to be mentioned overtly, a proclitic or pronoun will be present either before or after. Table 3-54 lists the possible adpositions, along with their glosses and functions.

Table 3-54 list of adpositions in Tagdal

Preposition	gloss	function	postposition	gloss	function
nda	'with'	Instrumental, Accompaniment	sa	'for'	Dative
			kan	'in', 'at'	Locative
			daaɣó	'at' ('chez')	Locative
			béena	'on', 'over'	Locative

3.5   Verbs

Since Songhay and Tuareg verb roots are usually distinguishable in Tagdal,[73] this section will include, first of Songhay cognates, then of Tuareg cognates, followed by a discussion of the derivational morphemes which affix onto verb roots of Tuareg origin.

3.5.1 Songhay cognates

In general, Songhay verb roots are often distinguishable by their syllable patterns. By far the most common verb roots of Songhay origin have only one syllable and carry a CVC pattern. Table 3-55 demonstrates some of the more common verb roots of Songhay origin with CVC syllable patterns.

Table 3-55 Songhay verb roots with CVC syllable pattern

1	dut	'pound (grain)'
2	may	'have'
3	kaw	'remove'
4	dab	'dress'
5	ʃin	'say'
6	koy	'go'
7	hay	'give birth'
8	ṭon	'fill up'
9	daw	'send'
10	har	'declare, praise'
11	zoq	'fight'
12	ben	'finish'
13	kan	'fall'
14	man	'call, name'
15	man	'be far'
16	gar	'save, guard'
17	bun	'die'
18	ṣat	'fly'
19	bis	'pass by'
20	bay	'know'
21	fer	'open'
22	nin	'drink'
23	tuk	'hide'
24	nam	'bite'
25	yed	'return'
26	kud	'go to the bush with flock'

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[73] See, for example, the discussion on syllable patterns of Songhay and Tuareg cognates in Christiansen-Bolli (2010:50-51).

27	qos	'cut up'
28	nas	'be fat'
29	giʃ	'leave'
30	fad	'be hungry'
31	waw	'insult'
32	ban	'be flexible'
33	dor	'be in pain, hurt'
34	ʃab	'apply make-up'
35	mun	'spill'

When an additional vowel is added to a verb root of Songhay origin with a CVC pattern, such as (for example) when a direct object clitic attaches directly onto the verb, the initial vowel lengthens, so that the new syllable pattern is either CV́:CV or CV:CV́.[74] Examples 3.4 through 3.6 demonstrate a just few cases in which the initial vowel in the verb roots from Table 3-54 lengthen due to the addition of a vowel, in this case the third person singular direct object clitic.[75]

3.4   vowel lengthening, Songhay cognates, verb root *nin* 'drink'
       noun Direct Object   clitic Direct Object
       a**nín** aʃʃáhi.   a**níin**-a

a=	nin	aʃʃahi	a=	nin	=a
3SG	drink	tea	3SG	drink	3SG.OBJ
'He drank tea.'			'He drank it.'		

3.5   vowel lengthening, Songhay cognates, verb root *qos* 'cut'
       noun Direct Object   clitic Direct Object
       iiri**qos** háamu.   iiri**qóos**-a

iiri=	qos	haamu	iiri=	qos	=a
1PL	cut	meat	1PL	cut	3SG.OBJ
'We cut the meat.'			'We cut it.'		

3.6   vowel lengthening, Songhay cognates, verb root *hur* 'enter'
       noun Direct Object   clitic Direct Object
       ni**húr** húggu.   ni**húur**-a.

ni=	hur	huggu	ni=	hur	=a
2SG	enter	house	2SG	enter	3SG.OBJ
'You entered the house.'			'You entered it.'		

Table 3-56 demonstrates some common verb roots of Songhay origin with CV syllable patterns.

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[74] The same process occurs in Tadaksahak (Christiansen-Bolli 2010: 79).
[75] I have chosen the third person singular direct object clitic in the following examples only for the sake of simplicity; the central point here is lengthening of the initial vowel in the root.

Table 3-56 Songhay verb roots with CV syllable pattern

1	da	'do'
2	ʃi	'be, not have'
3	ki	'stop, stand'
4	wa[76]	'eat'
5	wi	'kill'
6	na	'give'
7	te	'arrive'
8	bi	'be black'
9	to	'suffice'

All of the cases in Table 3-57 are of verb roots of Songhay origin with CV́:CV syllable patterns.

Table 3-57 Songhay verb roots with CV:CV syllable pattern

1	báara	'be' (locative)
2	báaɣa	'want, love, need'
3	buubó	'be pentiful'
4	guuná	'look'
5	ʒiidá	'walk'
6	kéeni	'sleep'
7	ʒiiní	'grab'
8	kuukú	'be long'
9	huunú	'go out'
10	ʃiidi	'be red'
11	goorá	'sit, stay'
12	zúuru	'run'
13	híinʒin	'fix, arrange'

In such cases, the addition of a Direct Object clitic will result in the final vowel becoming elided, as in Examples 3.7 through 3.9. In some of these cases, the third person plural clitic =i is used, since eliding the vowel /a/ before the third person singular =a will not result in any discernible difference. In those cases where stress falls on the second syllable of the root, vowel elision will result in stress falling on the clitic instead.

3.7   vowel lengthening, Songhay cognates, verb root *baaɣa* 'love'
         noun Direct Object   clitic Direct Object
         a**báaɣa** an ízzen.   a**báaɣ**-i

a=	baaɣa	a=	n	izzen	a=	baaɣa	=i
3SG	love	3SG	GEN	children	3SG	love	3PL.OBJ

'She loves her children.'   'She loves them.'

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[76] In several mainstream Songhay languages, this word actually has a CCV pattern ŋwa 'eat'.

3.8   vowel lengthening, Songhay cognates, verb root *guuná* 'see'
       noun Direct Object   clitic Direct Object
       anʒi**guuná** alfáqqiitan.   anʒi**guun-í**.

anʒi=	guuna	alfaqqiitan	anʒi=	guuna	=i
2PL	see	judges	2PL	see	3PL.OBJ

'You(pl) saw the judges.'   'You(pl) saw them.'

3.9   vowel lengthening, Songhay cognates, verb root *huunú* 'exit'
       noun Direct Object   clitic Direct Object
       ni**huunú** taɣáaysar aaɣó.   ni**huun-á**.

ni=	huunu	taɣaaysar	aaɣo	ni=	huunu	=a
2SG	exit	mess	DEF	2SG	exit	3SG.OBJ

'You escaped that mess.'   'You escaped it.'

Some Songhay verb roots with more than one syllable close the first syllable with a nasal consonant. Most, though not all, of these verb roots will take stress on the final syllable, as Table 3-58 demonstrates.

Table 3-58 Songhay verb roots with CVNCV or CVNCVCV
1	hámbaara	'fear'
2	dumbú	'slaughter' (lit. slit throat)
3	homboorí	'play drums'
4	zumbú	'descend'
5	hangá	'hear'

Finally, some Songhay cognates in Tagdal which do not fit the general patterns described above, as shown in Table 3-59.

Table 3-59 other
1	zaabén	'divide in half, share'
2	kəmmá	'find'
3	kəbbáy	'run into someone'
4	kəkkáy	'build'
5	háʃʃi	'look/, understand'
6	hurrú	'search'
7	daabés	'add onto'
8	kúrkur	'burn'
9	karfó	'tie someone with rope'
10	bánda	'back, behind'
11	kámba	'handle, take care of'

3.5.2 Tuareg cognates

Like Songhay congnates, cognates of Tuareg verb roots in Tagdal tend to follow

certain recognisable patterns. A typical uninflected verb root without any derivational morphemes attached would begin with /ə/. These would generally be verb roots which in Tadaksahak, Tagdal's sister Northern Songhay language, would begin with /y/ rather than with /ə/. As is the case with adjectives of Tuareg origin in Tagdal, in cases where the epenthetic /y/ appears, the /ə/ in the root to shifts position to [ɨ]. Table 3-60 below demonstrates a few Tuareg cognates that both Tagdal and Tadaksahak share.

Table 3-60 some Tuareg cognates in Tagdal and Tadaksahak

	Tadaksahak root	Tagdal root
1	yíftaɣ 'spread out'	ə́ftaɣ 'spread out'
2	yílkəd 'overtake'	ə́lkəd 'overtake'
3	yíŋgəd 'put on turban'	ə́ŋgəd 'put on turban'
4	yizə́ŋkəz 'push away'	əzə́ŋkəz 'push away'
5	yírəb 'almost catch sthg'	ə́rəb 'almost catch sthg'
6	yíṭkəl 'take'	ə́ṭkəl 'take'
7	yíxfəl 'lock up'	ə́xfəl 'lock up'
8	yízzəl 'reach out'	ə́zzəl 'reach out'

Uninflected verb roots of Tuareg origin function as the imperative, generally used to give commands. Whereas the /y/ in Tadaksahak verbs tends to be part of the root which disappears altogether in certain environments (see Christiansen-Bolli 2010: 52), in Tagdal it only occurs in an epenthetic role in cases where the verb has a Perfective marker. Examples 3.10 through 3.12 demonstrate how /y/ occurs epenthetically in Tagdal, in roots that begin with /ə/.

3.10   verb root: ə́ŋgəd 'put on turban'
        a**yíŋgəd** an íman sa.
a=   əŋgəd   a=   n   iman   sa
3SG   put on turban 3SG   GEN   soul   DAT
'He put his turban on by himself.'

3.11   verb root: ə́xfəl 'lock'
        i**yíxfəl** íiri kásaw kan.
i=   əxfəl   iiri   kasaw   kan
3PL   lock   1PL.IND   prison   in
'They locked us up in prison.'

3.12   verb root: ə́zzəl 'stretch out'
        abáydəg a**yízzəl** an kámba.
abaydəg   a=   əzzəl   a=   n   kamba
thief   3SG   stretch out   3SG   GEN   hand
'The thief stretched out his hand.'

It is worth noting that the verbs in Examples 3.10 through 3.12 would be the same in either Tagdal or Tadaksahak, since /y/ occurs in almost identical environments in both languages. The main difference is that /y/ in Tadaksahak occurs in the root, in the imperative, whereas in Tagdal it does not.

A large number of uninflected and underived verb roots of Tuareg origin have two syllables and a V́CCVC pattern. Stress falls on the penultimate syllable. Table 3-61 demonstrates some of these.[77]

Table 3-61 2-syllable Tuareg cognates beginning with /ə/ and have V́CCVC syllable patterns
1	ə́dbaq	'close'
2	ə́drər	'need'
3	ə́dkar	'fill up'
4	ə́fnəz	'make small'
5	ə́fraay	'be sick'
6	ə́frəd	'walk backward'
7	ə́gməm	'give chewing tobacco'
8	ə́grəz	'please someone'
9	ə́ɣbər	'kick backwards'
10	ə́ɣdər	'sneak around'
11	ə́ɣrəs	'pass through'
12	ə́ħkəm	'govern, rule'
13	ə́hlək	'destroy'
14	ə́kbəl	'sustain'
15	ə́lɣad	'comfort'
16	ə́lkəd	'overtake, pass'
17	ə́lməd	'show, demonstrate'
18	ə́ndər	'break off'
19	ə́ngəd	'put on turban'
20	ə́rgən	'cover with dirt'
21	ə́rɣəm	'scold'
22	ə́rʒəɣ	'give blessing'
23	ə́sləm	'greet'
24	ə́ʃɣəl	'work'
25	ə́skat	'separate'
26	ə́trəb	'do quickly'
27	ə́xsəs	'survive'
28	ə́zləf	'layer on thickly'
29	ə́zgər	'exit'
30	ə́zrəg	'draw water for animals'

Another common syllable pattern for uninflected Tuareg verb roots without

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[77] This pattern is so common in Tagdal that in the interest of space, I have limited this list to only a few examples.

derivational affixes is V́CCV, also with two syllables. Like the cases above, stress falls on the penultimate syllable, as Table 3-62 demonstrates.

Table 3-62 2-syllable Tuareg cognates that begin with/ə/ and have V́CCV syllable patterns

1	ə́dru	'work together'
2	ə́gda	'be equal'
3	ə́gra	'understand'
4	ə́ɣli	'surround'
5	ə́kla	'spend the day, take a break'
6	ə́ksa	'spend the cool season s-where'
7	ə́lku	'scoop up'
8	ə́lwa	'add onto, make bigger'
9	ə́nfa	'win something'
10	ə́ngu	'break out'
11	ə́nji	'get up early'
12	ə́rti	'mix together'
13	ə́zri	'replace'

Two other common patterns for Tuareg verb roots in Tagdal is V́CVC, actually V́C:VC, since if the first consonant is a stop, nasal or sibilant, it will lengthen due to gemination.[78] Like other cases of Tuareg roots with two syllables, stress falls on the penultimate syllable. Table 3-63 demonstrates some examples.

Table 3-63 2-syllable Tuareg cognates that begin with /ə/ and V́CVC or V́C:VC syllable pattern

1	ə́nnəz	'bend down'
2	ə́qqəb	'leave'
3	ə́qqəl	'wait, show patience'
4	ə́rəb	'almost catch'
5	ə́rəg	'contribute'
6	ə́rəs	'lower'
7	ə́rəz	'repay'
8	ə́ssaɣ	'tie together'
9	ə́ššaɣ	'illuminate'
10	ə́ssəs	'tie up tightly'

A few Tuareg cognate verb roots in Tagdal do not begin with /ə/ and have two syllables. Typically, in these cases stress would fall on the penultimate syllable as well, as Table 3-64 demonstrates.

Table 3-64 Tuareg cognates that do not begin with /ə/ and have two syllables

1	gárʃɑk	'give someone the evil eye'
2	héekay	'watch out for, be careful of'
3	mádaɣ	'glue together'

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[78] See section Christiansen-Bolli (2010) for a discussion of gemination in Tadaksahak.

4	nə́ʈfəs	'fold'
5	qáyit	'chase'
6	ʒə́rəg	'take animals to the well'

Table 3-65 demonstrates examples of verb roots of Tuareg origin that begin with consonants[79] and have more than two syllables and stress falls on the antepenultimate syllable. Therefore, the conditions described in Section 3.1.2 apply.[80]

Table 3-65 Tuareg cognates w/ more than 2 syllables, antepenultimate stress

1	bəráɣbəraɣ	'applaud'
2	bə́ttəqət	'ruin completely'
3	bə́bbəgət	'blacken by the elements'
4	də́wwəkʃəʃ	'make someone happy'
5	dəbə́rdəbbər	'crawl quickly'
6	fə́ddəgdəg	'make sound of animal running'
7	fə́lliiwəs	'be happy'
8	fə́rəkrək	'vibrate'
9	gə́bbərrət	'grab sthg out of someone's hand'
10	gə́ruurus	'make mewling sound'
11	gúruurəs	'sing'
12	ɣóruurud	'tumble, fall down'
13	hə́lləklək	'pant, sputter'
14	káytaaran	'spend 2-4 months deep in the bush w/ animals'
15	kəbə́rkəbər	'limp'
16	mə́lluulu	'clean until shiny'
17	mə́ttəkwi	'move about'
18	hánnəfa	'whine'
19	kórookod	'be ashamed'
20	kubúŋkuubut	'hide by covering up'
21	mə́ggərəẓ	'be discouraged'
22	tə́hhəmət	'accuse'
23	tə́rəgət	'jump to get sthg off back'
24	tə́wwaala	'leap'
25	wánniifat	'search for sthg put down earlier'
26	wəráɣwəraɣ	'look around and around for sthg'
27	wə́ʃʃəʃət	'burn trash'
28	wə́ziiwəz	'scatter'
29	zəbə́ɣzəbbəɣ	'waddle'

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[79] Other than s, z, ʃ or Z, since verbs that begin with these typically have a causative prefix (see below).
[80] A large number of these are cases of reduplication. However, the point here is that uninflected Tuareg verb roots with no derivational morphemes will usually have stress on the antepenultimate syllable.

30	zə́llaɣla	'slither'
31	zəwə́ɣzəwəɣ	'pick at food a little at a time'

Table 3-66 contains some examples of Tuareg verb roots with more than two syllables, where stress falls on the penultimate syllable.

Table 3-66 Tuareg cognates w/ more than 2 syllables, begin w/ consonant, stress falls on penultimate

1	farákta	'inspect'
2	ləfáɣʃəd	'be unpleasantly surprised, disappointed'
3	məɣáytər	'have difficulties, problems'
4	məzə́rzər	'try'
5	nətérmas	'arrest'
6	sabára	'cover woman seated on animal'
	sələ́ɣad	'plead'

Table 3-67 demonstrates some examples of Tuareg verb roots that begin with /ə/ and have more than two syllables. In those cases where stress falls in the antepenultimate syllable, the same conditions for Tuareg vocabulary described in Section 3.1.2 apply.

Table 3-67 Tuareg cognates w/ more than 2 syllables, antepenultimate stress, begin with /ə/

1	ə́ffəga	'uncover, reveal'
2	ələ́ttuutəg	'go easy on sthg or s-one weak'
3	əláffənʒək	'break apart'
4	əmmə́gən	'eat during evening'
5	ənnə́fli	'be at ease, be rich'
6	ərə́bət	'wrinkle'
7	ərə́kam	'be weak, not solid'
8	ə́rəkan	'push sthg forcefully'
9	ə́riiyəd	'release sthg suddenly'
10	ərrə́rəgət	'chase down w/ force'
11	ərrə́ẕẕərəz	'break w/ force'
12	ə́ssəɣləf	'take one's leave'
13	ə́zzəlay	'differentiate'
14	əzə́nkəz	'push'

3.5.3 Derivational affixes

If the verb root is of Tuareg origin, then it will take one of three types of derivational prefixes, or combinations of more than one of these. The Tuareg derivational prefixes are: the causative *s-*, along with its allomorphs *ʃ-*, *z-* and *ʒ-*;[81] the reciprocal *nəm-*; and the passive *təw-*.

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[81] In Tabarog, which lacks /ʒ/ and /ʃ/, the only allomorph is /z/.

When one of the derivational affixes attaches onto a Tuareg verb root, stress shifts onto the syllable with the prefix, unless this would cause it to fall before the antepenultimate syllable, in which case, stress would not shift. Otherwise, the conditions for Tuareg cognates described in Section 3.2.1 apply.

Causative

The default causative morpheme in Tagdal is *s-*, with /ə/ occurring in an epentheic function if needed. In those cases where the Tuareg verb root begins with /ə/ and has two syllables, when the causative *s-* is added, no additional syllable is added. Therefore, stress remains in the penultimate syllable. Table 3-68 demonstrates the causative *s-* with verb roots that have two syllables.

Table 3-68 causative affix s(ə)- Tuareg cognates with two syllables

	verb root	meaning	Causative moprpheme	Verb w/ causative	Meaning w/ causative
1	ə́ŋkəd	'squeeze'	s-	sə́nkəd	'cause to squeeze'
2	ə́ṭṭəf	'spit'	s-	sə́ṭṭəf	'cause to spit'
3	ə́ʒʒəd[82]	'bow'	s-	sə́ʒʒəd	'cause to worship'
4	ə́ħlək	'destroy'	s-	sə́ħlək	'cause to destroy'
5	ə́ħkəm	'reign'	s-	sə́ħkəm	'cause to reign'
6	ə́kfəd	'nurse'	s-	sə́kfəd	'cause to nurse'
7	ə́dwəl	'grow up'	s-	sə́dwəl	'raise'
8	ə́frag	'be able'	s-	sə́frag	'cause to be able'
9	ə́xfəl	'lock'	s-	sə́xfəl	'cause to lock'
10	ə́swaɣ	'make animal wait'	s-	sə́swaɣ	'cause animal to wait'
11	ə́dbaq	'close opening'	s-	sə́dbaq	'close opening'
12	ə́ddəz	'be tired'	s-	sə́ddəz	'cause to be tired'
13	ə́gməm	'chew tobacco'	s-	sə́gməm	'cause to chew tobacco'
14	ə́ɣrəs	'pass through'	s-	sə́ɣrəs	'cause to pass through'
15	ə́ɣray	'study'	s-	sə́ɣray	'teach'
15	ə́ɣfər	'rent'	s-	sə́ɣfər	'cause to rent'
16	ə́ɣrəf	'water animals every other day'	s-	sə́ɣrəf	'cause to water animals every other day'
17	ə́lləm	'uncover'	s-	sə́lləm	'cause to uncover'

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[82] Normally, this verb root should take the causative allopmorph Z(ə)-. However, this case is an exception.

18	ə́nṭa	'begin'	s-	sə́nṭa	'cause to begin'
19	ə́dru	'work together'	s-	sə́dru	'cause to work together'
20	ə́ktəb	'write'	s-	sə́ktəb	'cause to write'

In cases where the Tuareg verb root has more than two syllables, or would have more than two syllables when the causative prefix is added, stress shifts to the antepenultimate syllable of the with the causative prefix, as Table 3-69 demonstrates. When this happens, the conditions described in Section 3.1.2 apply.[83]

Table 3-69 causative affix s(ə)-, Tuareg verb roots w/ more than two syllables, stress changes

	verb root	meaning	Causative moprpheme	Verb w/ causative	Meaning w/ causative
1	gə́rfət	'kneel'	s-	sə́ggərfət	'cause to kneel'
2	əmmə́gni	'bounce back'	s-	sə́mməgni	'cause to bounce back'
3	əmmə́gən	'eat in the evening'	s-	sə́mməgən[84]	'cause to eat in the evening'
4	ərə́kam	'structurally weak'	s-	sə́rəkkam	'cause to be structurally weak'
5	əbbə́dar	'live'	s-	sə́bbədar	'cause to live' (i.e. to save one's life)
6	əssə́rəqət	'infiltrate'	s-	sə́ssərqət	'cause to infiltrate'
7	gə́ruurus	'mewl like camel'	s-	sə́gruurus	'cause to mewl like camel'
8	kə́rəd	'hobble animal'	sə-	sə́kkərəd	'cause to hobble animal'
9	kə́rkər	'clean'	sə-	sə́kkərkər	'cause to clean'
10	lə́fləf	'clamber quickly'	sə-	sə́lləfləf	'cause to clamber quickly'
11	lə́ngət	'hang'	sə-	sə́lləngət	'cause to hang'
12	mə́ggən	'eat before sleeping'	sə-	sə́mməgən	'cause to eat before sleeping'
13	əddə́rəz	'leave traces'	sə-	sə́ddərəz	'cause to leave traces'
14	bə́kkəmət	'ambush'	sə-	sə́bbəkmət	'cause to ambush'

Table 3-70 demonstrates some exceptional cases, where the original stress remains

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[83] In general, Tagdal accentual shift in the causative seems to be similar to the Perfective Causative, described in Heath (2005: 444-447), in the case of Tuareg spoken in Mali. Unfortunately, a study of derivational morphology and its effects on accentuation in the Tuareg languages of Niger has not been undertaken.

[84] In the case of *əmmə́gni* 'bounce back' and a few others, the initial long consonant is likely due to gemination, while the same long consonant in the causatiɣe form is likely due to elongation that accompanies the shift in stress to the antepenultimate syllable.

when the causative prefix is added, because stress already falls on the antepenultimate syllable.

Table 3-70 causative affix s(ə)-, Tuareg verb roots w/ more than two syllables, no stress shift

	verb root	meaning	Causative moprpheme	Verb w/ causative	Meaning w/ causative
1	əhə́lləklək	'sputter'	s-	səhə́lləklək	'cause to sputter'
2	əmmə́ṇi	'meet w/ someone'	s-	səmmə́ṇi	'cause to meet'
3	gə́lləfət	'grab quickly'	sə-	səgə́lləfət	'cause to grab quickly'
4	kərə́bkərəb	'tremble'	sə-	səkkərə́bkərəb	'cause to tremble'
5	kəbə́rkəbər	'limp'	sə-	səkkəbə́rkəbər	'cause to limp'

Table 3-71 demonstrates the occurrence of ʃ- as an allomorph of s-.

Table 3-71 ʃ- as allohone of s-

	verb root	meaning	Causative moprpheme	Verb w/ causative	Meaning w/ causative
1	ə́χʃəd	'ruin'	ʃ-	ʃə́χʃəd	'cause to ruin'
2	mə́tʃa	'store'	ʃə-	ʃə́mmətʃa	'cause to store'
3	ʃéddən	'count'	ʃə-	ʃə́ʃʃeedən	'cause to count'
4	ə́ʃrəγ	'judge'	ʃ-	ʃə́ʃrəγ	'cause to judge'
5	ə́ʃγəl	'work'	ʃ-	ʃə́ʃγəl	'cause to work'
6	ə́ʃrəγ	'judge'	ʃ-	ʃə́ʃrəγ	'cause to ruin'
7	ə́ʃʃək	'doubt'	ʃ-	ʃə́ʃʃək	'cause doubt'
8	ə́ʃʃaγ	'illumine'	ʃ-	ʃə́ʃʃaγ	'cause to illumine'
9	ə́ʃγəl	'work'	ʃ-	ʃə́ʃγəl	'cause to work'
10	gárʃak	'be jealous'	ʃ-	ʃə́ggarʃak	'cause to be jealous'
11	kə́rʃət	'break into small pieces'	ʃə-	ʃə́kkərʃət	'cause to break into small pieces'

ʒ- can also be an allomorph of s-, as table 3-72 demonstrates.

Table 3-72 ʒ- as allohone of s-

	verb root	meaning	Causative moprpheme	Verb w/ causative	Meaning w/ causative
1	ə́ʒʒərgən	'be dirty'	ʒ-	ʒə́ʒʒərgən	'make dirty'
2	ə́məʒwər	'move tent'	ʒ-	ʒə́mməʒwər	'cause to move around'
3	ʒə́nuunug	'wander'	ʒə-	ʒəʒə́nuunug	'cause to wander'
4	ʒə́rəb	'test'	ʒə-	ʒəʒə́rəb	'cause to test'

5	ə́ʒʒək	'beat'	ʒ-	ʒə́ʒʒək	'cause to beat '
6	əʒə́ggəlgəl	'be hairy'	ʒ-	ʒəʒə́ggəlgəl	'cause to be hairy'
7	ʒéwab	'respond'	ʒ-	ʒə́ʒʒeewab	'cause to respond'
8	ə́ʒʒəl	'hand over'	ʒ-	ʒə́ʒʒəl	'cause to hand over'
9	ə́ʒləg	'place directly on top'	ʒ-	ʒə́ʒləg	'cause to place directly on top'
10	ʒə́lləd	'bother'	ʒ-	ʒə́ʒʒələd	'cause to bother'
11	ʒə́rəg	'take animals to the well'	ʒ-	ʒə́ʒrəg	'cause to take animals to well'
12	ʒíbbəgbəg	'puff up'	ʒə-	ʒəʒíbbəgbəg	'cause to puff up'

z- can also be an allomorph of *s-*, as Table 3-73 demonstrates.

Table 3-73 z(ə)- as allohone of s(ə)-

verb root		meaning	Causative moprpheme	Verb w/ causative	Meaning w/ causative
1	ə́nzəg	'place'	z-	zə́nzəg	'cause to place'
2	ə́zzəf	'be naked'	z-	zízzəf	'cause to be naked'
3	ə́rzəm	'pay'	z-	zə́rzəm	'cause to pay'
4	ə́gzər	'hold a grude'	z-	zə́gzər	'cause to hold a grudge'
5	ə́zzar	'be first'	z-	zə́zzar	'cause to be first' (i.e. 'rule', usually unexpectedly)
6	zəddáy	'know' (someone)	zə-	zə́zzəday	'cause to know'
7	ə́zzəkət	'cease'	z-	zə́zzəkət	'caise to cease'
8	ənə́mməgzər[85]	'be enemies'	z-	zənə́mməgzər	'cause to be enemies'
9	ə́mməzray	'confuse'	z-	zə́mməzray	'cause confusion'
10	wə́zziiwəz	'scatter'	zə-	zəwə́zziiwəz	'cause to scatter'

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[85] This is a case of the causative prefix *z-* occurring in the same verb as the Reciprocal *nəm-*. The occurrence of multiple derivational prefixes will be treated below in Section 3.5.

Reciprocal

Another derivational prefix in Tagdal is the reciprocal *nəm-*, which indicates that the subjects – by necessity plural – are either performing an action together or upon each other. Unlike Tadaksahak (Christiansen-Bolli 2010), in Tagdal *nəm-* does not have the allomorph *nə-*.

Whenever *nəm-* occurs with a verb root of Tuareg etymology, stress will shift to the syllable with the prefix, unless this would cause it to shift to before the antepenultimate, in which case it would not shift. In cases where stress shifts to the antepenultimate, it would have the same effects upon the penultimate syllable described in Section 3.1.2.[86] Table 3-74 demonstrates some common verb roots with the Reciprocal prefix attached.

Table 3-74 Tuareg verb roots with Reciprocal prefix

	verb root	gloss	w/ derivational morpheme	Gloss
1	áħkəm	'destroy'	nə́mməħkəm	'destroy each other'
2	ə́gɣəl	'be faithful'	nə́mmədɣəl	'be faithful to each other'
3	ə́ffəd	'borrow'	nə́mməfəd	'borrow from each other'
4	ə́frəz	'separate'	nə́mməfrəz	'separate from each other'
5	ə́gra	'understand'	nə́mməgra	'understand each other'
6	ə́lləd	'put arms around'	nə́mmələd	'put arms around each other'
7	əṭkəl	'seive'	nə́mməṭkəl	'seize each other'
8	ə́zzəl	'hand sthg over w/ hand outstretched'	nə́mməzəl	'hand sthg over to each other'
9	fə́kərkər	'shake about'	nəmfə́kkərkər	'shake each other about'
10	gə́bbərrət	'grab with force'	nəmgə́bbərrət	'grab each other with force'
11	ʒə́ʒʒəl	'pull hand-over-hand'	nə́mʒəʒʒəl	'pulling s-one out of a hole hand-over-hand w/ rope'
12	kərə́bkərəb	'tremble'	nəmkərə́bkərəb	'tremble together'
13	lə́fləf	'scramble up quickly'	nə́mləfləf	'scramble up quickly together'

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[86] As with the case of the causative, the shift in stress seems to be similar to what occurs in the Reciprocal in the Tuareg language of Mali (Heath 2005: 477-479).

14	sə́sləm	'greet'	nə́msəsləm	'greet each other'
15	tə́xfər	'rent'	nə́mtəxfər	'rent together'
16	wə́zgət	'engage in sexual intercourse'	nə́mwəzgət	'engage in sexual intercourse w/ each other'

Passive

The third derivational prefix possible for verb roots of Tuareg origin is the passive voice *təw-*, demonstrated in Table 3-75. When the passive voice affix is attached to a verb root, stress normally shifts to the syllable with the prefix, unless this would cause it to fall before the antepenultimate syllable. If stress falls upon the penultimate prefix, it will have the same effects in the penultimate described in Section 3.1.2.[87]

Table 3-75 passive affix təw-

	verb root	meaning	Verb w/ passive	Meaning w/ causative
1	bə́kkəmət	'ambush'	tə́wbəkmət	'ambushed'
2	ə́ṭṭəf	'spit'	tə́wwəṭəf	'spat'
3	ə́ħlək	'destroy'	tə́wwəħlək	'destroyed'
4	ə́xfəl	'lock'	tə́wwəxfəl	'locked'
5	ə́ɣrəs	'pass through'	tə́wwəɣrəs	'pierced'
6	ə́ɣray	'study'	tə́wwəɣray	'studied'
7	ə́ɣfər	'rent'	tə́wwəɣfər	'rented'
8	ə́χʃəd	'ruin'	tə́wwəχʃəd	'ruined'
9	ə́ktəb	'write'	tə́wwəktəb	'written'
10	ə́lləm	'uncover'	tə́wwələm	'uncover'
11	gə́lləfət	'grab quickly'	təwgə́lləfət	'grabbed quickly'
12	kə́rəd	'hobble animal'	tə́wkərəd	'animal hobbled'
13	kə́rʃət	'break into small pieces'	tə́wkərfət	'broken into small pieces'
14	lə́ngət	'hang'	tə́wləngət	'hung'
15	ʒíbbəgbəg	'puff up'	təwʒíbbəgbəg	'puffed up'

Multiple prefixes

Figure 3-8, based on Christiansen (2010: 53), demonstrates the order in which multiple derivational prefixes occur when attached to the root.

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[87] Likewise, the stress shift in the Passive voice seems to be similar to what occurs in the Perfective Passive in the Tuareg language of Mali (Heath 2005: 467-468).

Figure 3-8 Mutiple derivational affixes

Passive	Causative	Reciprocal	Causative	Root
təw-	s-	nəm-	s-	

Among attested combinations of multiple derivational prefixes are the following, given in Table 3-76:[88]

Table 3-76 Attested cases of mutiple derivational affixes

	combination	gloss
sə́ssəɣray	CAUS, CAUS	'cause to cause to learn'
təwə́ssəɣray	PASS, CAUS	'be caused (forced?) to learn'[89]
təwmə́msəɣray	PASS, REC, CAUS	'be caused (forced?) to learn together'
nə́msəɣray	REC, CAUS	'cause to learn together'
sənə́msəɣray	CAUS, REC, CAUS	'cause to learn together'

3.5.4 Suppletion

Since the causative *s-*, the Reciprocal *nəm-* and the passive *təw-* can only attach onto verb roots of Tuareg origin, whenever a Songhay cognate is present and requires one of these three, Tagdal suppletes the Songhay verb root with one of Tuareg origin, with the prefix(es) in question already lexicalised.[90] Each of the suppletive forms of Tuareg origin follows the conditions for Tuareg vocabulary described in Section 3.1.2. Table 3-77 demonstrates some of the more common verbs of Songhay etymology and the Tuareg roots that supplete them.

One not of importance here: whereas the Tuareg suppletive verb forms are legitimate verbs in Tagdal, their root forms without the lexicalised prefixes are not. For example, the causativised verb *ʃə́ʃta* 'feed' (in effect, 'cause to eat') is a verb in Tagdal. the underived root *ə́ʃta 'eat' is not. The verb 'eat' in Tagdal is *wa*. Likewise, the passive *tə́wwəkəs* 'exited' is a verb, the Tuareg verb *əkkəs 'exit' is not.

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[88] For the sake of simplicity, the root *ə́ɣray* 'learn' will be used here. However, others could theoretically be possible as well.

[89] In the contexts in which Passive and Causative co-occur, it seems that there may be an element of forcing something to occur. However, this requires more study. (See for example, *amatəwə́ssəɣray* 'one who is forced to learn' in Table 3-38 as an alternative term for 'student'.)

[90] Benítez-Torres (2020) suggests that suppletion came about due to the prosodic processes that came into the language with Songhay and Tuareg vocabulary.

Table 3-77 Suppletion of Songhay cognates in the verb root

	Songhay	Verb root	Causative		Reciprocal		Passive	
1	báaɣa	'love'	sə́rat	'cause to love'	nə́mmərat	'love one another'	tə́wwərat	'loved'
2	bay	'know'	sə́ṣṣen	'cause to know'	nə́mməṣen	'know each other'	tə́wwəṣen	'known'
3	ben	'finish'	sə́kkəsaw	'cause to finish'	nəmmə́ksaw	'finish (for) each other'	təwwə́ksaw	'finished'
4	bis	'pass'	séekay	'cause to pass'	nə́mmeekay	'pass each other'	tə́wweekay	'passed'
5	buubó	'multiply'	sə́ggəd	'cause to multiply'	nə́mməgəd	'multiply together'	tə́wwəgəd	'multiplied'
6	bun	'kill'	sə́nɣa	'cause to kill'	nə́mmənɣa	'kill each other'	tə́wwənɣa	'killed'
7	da	'give'	sə́ssuuga	'cause to give'	nəmə́ssuuga	'give to each other'	təwə́ssuuga	'given'
8	dab	'dress'	sə́lsa	'cause to dress'	nə́mməlsa	'dress each other'	tə́wwəlsa	'dressed'
9	daw	'send'	sə́ssooka	'cause to send'	nəmə́ssooka	'send each other'	təwə́ssooka	'sent'
10	ḍon	'fill'	sə́dnay	'cause to fill'	nə́mmədnay	'fill together'	tə́wwədnay	'filled'
11	dut	'pound grain'	sə́ssud	'cause to pound grain'	nə́mməlsud	'pound each others' grain'	tə́wwəlsud	'pounded'
12	fer	'open'	sə́ssuura	'cause to open'	nəmə́ssuura	'open (for) each other'	təwə́ssuura	'opened'

13	gar	'protect'	zə́zzaygəz	'cause to protect'	nəmə́zzaygəz	'protect each other'	təwə́zzaygəz	'protected'
	giʃ	'set loose'	séwwiiya	'cause to set loose'	nəmə́wwiiya	'set each other loose'	tə́wwiiya	'set loose'
14	goorá	'sit'	sə́ṭṭeema	'cause to sit'	nəmə́ṭṭeema	'sit together'	təwə́ṭṭeema	'sat'
15	gun	'look'	sə́swəl	'cause to look'	nə́mməswəl	'look at each other'	tə́wwəswəl	'looked'
16	haŋgá	'hear'	sə́ddərgən	'listen'	nəmə́ddərgən	'hear each other'	təwə́ddərgən	'heard'
17	haŋgá	'accompany'	sə́ssiidu	'cause to accompany'	nəmə́ssiidu	'accompany each other'	təwə́ssiidu	'accompanied'
18	har	'declare'	sə́mməl	'cause to declare'	nə́mməl	'declare to each other'	tə́wwəməl	'declared'
19	hay	'give birth'	sə́sseeru	'cause to give birth'	nə́mmeeru	'give birth together'	tə́wweeru	'birthed'
20	huunú	'exit'	sə́wwəkəs	'kick out'	nəmə́wwəkəs	'leave together'	tə́wwəkəs	'exited'
21	ʒiiná	'grab'	sə́ttərməs	'cause to grab'	nəmə́ttərməs	'grab each other'	təwə́ttərməs	'grabbed'
22	kaw	'remove'	sə́kkus	'cause to remove'	nə́mməkus	'remove each other'	tə́wwəkus	'removed'
23	kəkáy	'build'	sə́krəs	'cause to build'	nə́mməkrəs	'build each other up (i.e. encourage)'	tə́wwəkrəs	'built'
24	kəmmá	'find'	sə́grəm	'cause to'	nə́mməgrəm	'find each'	tə́wwəgrəm	'found'

				find'		other'		
25	keení	'sleep'	sə́nsa	'cause to sleep'	nə́mmənsa	'sleep together'	tə́wwənsa	'slept'
26	kuukú	'be long'	zə́zzəgrət	'cause to be long'	nəmə́zzəgrət	'be long together'	tə́wzəgrət	'made long'
27	koy	'go'	sə́gla	'cause to go'	nə́mməgla	'go together'	tə́wwəgla	'gone'
28	may	'have'	sə́lla	'cause to have'	nə́mmələ	'have each other'	tə́wwələ	'had'
29	na	'give'	sə́kfa	'cause to give'	nə́mməkfa	'give to each other'	tə́wwəkfa	'given'
30	ʃin	'say'	sə́ssəna	'cause to say'	nə́mmənə	'say to each other'	tə́wwənə	'said'
31	te	'arrive'	súka	'cause to arrive'	nə́mmuuka	'arrive together'	tə́wwuuka	'arrived'
32	tuk	'hide'	sə́ɣləf	'cause to hide'	nə́mməɣləf	'hide together'	tə́wwəɣləf	'hidden'
33	wa / ŋwa	'eat'	ʃə́ʃta	'feed'	nə́mməʃta	'feed each other'	tə́wwəʃta	'fed'
34	zaabén	'share'	zə́zzəm	'cause to share'	nə́mməzəm	'share together'	tə́wwəzzəm	'shared'
35	zoq	'fight'	sə́knəs	'cause to fight'	nə́mməknes	'fight each other'	tə́wwəknes	'fought'

It is interesting to note that the suppletive forms follow all of the prosodic rules outlined in Section 3.1.2. For example, *haŋgá* 'hear' becomes sə́ddərgən 'listen', nəmə́ddərgən 'listen to each other' and təwə́ddərgən 'heard'.

3.5.5 Verb morphology

Tagdal has a number of bound morphemes which attach both before and after the verb root. With few exceptions outlined below, they do not take any stress, since typically stress falls somewhere in the verb root. Table 3-78 shows the major elements that attach onto the verb root.

Table 3-78 structure of the verb word in Tagdal

Part of speech	Pronominal Clitic	Negation	TAM	Verb root	-kat -nan	Pronominal Clitic
Function	Subject	Negation	TAM		direction	Direct Object

In addition, some of the bound morphemes that attach to the verb root, under certain circumstances attach into the Dative marker *sa*, as part of the Verb Phrase, to indicate the Indirect Object. Therefore, this will also be discussed in the following sections.

Pre-verbal bound morphemes

The three pre-verbal bound morphemes in Tagdal are the pronominal Subject, clitic the Negation markers and the Tense-Aspect-Mood marker, each of which will be discussed below.

Subject pronominal clitics

The Subject pronominal clitic in Tagdal marks the Subject of the clause and with few exceptions[91] is usually a required element of the sentence. Table 3-79 shows the subject pronominal clitics in Tagdal:

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[91] See, for example the discussion of Subject relative clauses in Section 4.2.

Table 3-79 subject pronominal clitics in Tagdal

Person:	Singular	Plural
First	ɣa-/ aɣ-	iri-
Second	ni- / -in[92]	anji-
Third	a-	i-

Normally these appear attached before the root, as the first element of the verb, before the negation and TAM marker. The proclitic may also attach to the genitive marker *n*, adpositions and the Dative *sa*. Examples 3.13 through 3.18 demonstrate how the subject clitic to indicate the Subject of the clause.

3.13   **ɣa**təzə́zzəbətkaat-a.[93]
ɣa=   tə-   zəzzəbət   -kat   =a
1SG   FUT   CAUS come down   VEN   3SG
'I'll make him come down.'

3.14   **ni**mgáar-i ne da.
ni=   m-   gar   -i   ne   da
2SG   SBJ   guard   3PL   here   EMPH
'You should keep them here.'

3.15   **a**kóy yáabu.
a=   koy   yaabu
3SG   go   market
'She went to the market.'

3.16   **iiri**kungú tággəla kan.
iri=   kungu   taggəla   kan
1PL   satiate   bread   in
'We had our fill of bread.'

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[92] The first person singular clitic *-aɣ* only occurs as an Indirect Object with the Dative *sa*. The second person singular *-in* occurs as an Indirect Object with the Dative *sa*, as well as before the Negations *se-*, *nə-* and the Future *tə-*.

[93] *zə́zzəbət* 'cause to descend' is the suppletive form of the Songhay cognate *zumbú* 'descend'.

3.17   bəssə́ba **anji**təbáy.
bəsəba   anji=   tə-   bay
tomorrow 2PL   FUT   know
'You (pl) will know tomorrow.'

3.18   sa **i**té daaɣó aaɣó, **i**kí.
sa   i=   te   daaɣo   aaɣo   i=   ki
SBDR   3PL   arrive place   DEF   3PL   stop
'When they arrived in that place, they stopped.'

The subject proclitic also attaches to the Genitive marker *n* to indicate Ownership or Kinship, as Table 3-80 demonstrates.

Table 3-80 subject clitic with Genitive marker n

	singular		plural	
first person	ɣan káyna	'my younger sibling'	irin káyna	'our younger sibling'
second person	nin káyna	'your younger sibling'	anjin káyna	'your (pl) younger sibling'
third person	an káyna	'his, her younger sibling'	in káyna	'their younger sibling'

The Genitive *n* generally adjusts its place of articulation to its environment, as Table 3-81 demonstrates.

Table 3-81 subject clitic with GENITIVE marker n when followed by bilabial

	singular		plural	
first person	ɣam móota	'my car'	iirim móota	'our car'
second person	nim móota	'your car'	anjim móota	'your (pl) car'
third person	am móota	'his, her car'	im móota	'their car'

Negation

The negation prefix follows the pronominal clitic. Tagdal has three negation prefixes, each of which, in addition to Negation, encodes some form of TAM. In addition, the future negation is not part of the morphology per-se; rather, it occurs as a syntactic construction. Nevertheless, it will be covered here as part of the discussion on negation.

The Perfective Negation marker *n-* or *nə-* is the default Negation in most

spoken discourse, as well as in stative verbs. It indicates that an action did not occur at some definitive point or, in the case of stative verbs, something which is currently not the case, as Examples 3.19 through 3.24 demonstrate.

3.19   harwá **anə**záwkaat-a.

harwa	a=	nə	zaw	-kat	=a
yet	3SG	NEG.PRF	carry	VEN	3SG

'He has not brought it yet. '

3.20   tabárar aaɣó, a**nə**hóssay.

tabarar	aaɣo	a=	nə	hossay
girl	DEF	3SG	NEG.PRF	beautiful

'That girl is not pretty.'

3.21   in**ə́**qbəl ha aaɣó

i=	nə	əqbəl	ha	aɣo
3PL	NEG	accept	thing	DEF

'They didn't accept

im bárar əzáwkat.

i=	n	barar	ə-	zaw	-kat
3PL	GEN	son	SUB.REL	bring	VEN

what their son brought them.'

3.22 ɣa**nə**daɣná-a.

ɣa=	nə	daɣna	=a
1SG	NEG.PRF	forget	3SG

'I didn't forget it.'

3.23   harwá iiri**nə**huun-á.

harwa	iri=	nə	huunu	=a
yet	1PL	NEG.PRF	leave	3SG

'We haven't exited (from) it yet.'

3.24   boorén aaɣoonén, in**ə́**frəg

booren	aaɣoonén	i=	nə	əfrəg
people	DEF	3PL	NEG.PRF	able

'Those people couldn't

sa itəyárəg.

sa	i=	tə	yarəg
SBRD	3PL	FUT	live together

live together (i.e. be neighbours).'

The imperfective negation is marked with the prefix *s-* or *sə-*. It indicates that a particular action is not the case at present, or was not the case in the past. Examples 3.25 through 3.29 demonstrate.

3.25   ɣa**s**əbwá ha aaɣó.

ɣa=	sə-	b	wa	ha	aaɣo
1SG	NEG.IMP	IMP	eat	thing	DEF

'I don't eat that.'

3.26   a**s**əbáy ha aaɣó amdá.

a=	sə-	bay	ha	aaɣo	a=	m	da
3SG	NEG.IMP	know	thing	DEF	3SG	SBJ	do

'He doesn't know what he should be doing.'

3.27   a**s**əbsəmə́ddərən waalá ha fo

a=	sə-	b	səmədrən	waala	ha	fo
3SG	NEG.IMP	IMP	think	nothing	thing	IDF

'He doesn't worry about anything

a-húngu kan.

a=	n	hugu	kan
3SG	GEN	house	in

in his household.'

3.28   i**s**əbə́ddər

i=	sə-	əddər
3PL	NEG.IMP	live

'They are dead. (lit. they are not living)'.

3.29   iiri**s**əbmáy ha.

iri=	sə-	b	may	ha
1PL	NEG.IMP	IMP	have	thing

'We didn't have anything.'

Normally, the Negation morpheme precedes the Tense-Aspect-Mood marker. However, in Tagdal the Subjunctive marker *m-* is followed by the Negation *sə-*, indicating that something should not happen, or should not be the case, as Examples 3.30 through 3.33 demonstrate.

3.30   iiri**ms**əḍóos-a.

iri=	m-	sə-	ḍos	=a
1PL	SBJ	NEG.IMP	touch	3SG

'We shouldn't touch it.'

3.31   ni**msə**kóoy-a
ni=   m-   sə-   koy   =a
2SG   SBJ   NEG.IMP   go   3SG
'You shouldn't go there.'

3.32   anji**msə**wá izzén aaɣoonén.
anji=   m-   sə-   wa   izze   -en   aaɣo   -en
2PL   SBJ   NEG.IMP   eat   child   PL   DEF   PL
'You (PL) shouldn't eat those seeds.'

3.33   i**msə**keení dáaɣo aaɣó.
i=   m-   sə-   keeni   daaɣo   aaɣo
3PL   SBJ   NEG.IMP   sleep   place   DEF
'They shouldn't sleep there.'

The Future marker *tə-* cannot occur with a Negation prefix. Therefore, in order to negate the Future, a clause with the negated Subjunctive *msə-* can be combined with the verb root *koy* 'go', immediately followed by another clause whose verb contains the Subjunctive *m-* to indicate what will not happen. This syntactic construction forms a stronger injunction than the verb occurring only with *msə-*, as Examples 3.34 through 3.37 demonstrate.

3.34   ni**msəkóy** ni**m**kóy!
ni=   msəkoy   ni=   m   koy
2SG   FUT.NEG   2SG   SBJ   go
'Don't go!'

3.35   anji**msəkóy** anji**m**ḍós aarén aaɣoonén!
anji=   msəkoy   anji=   m-   ḍos   aaro   -en   aaɣo   -en
2PL   FUT.NEG   2PL   SBJ   touch   man   PL   DEF   PL
'Don't touch (i.e. harm) those men!'

3.36   ni**msəkóy** ni**m**ərmaɣ!
ni=   msəkoy   ni=   m   ərmaɣ
2SG   FUT.NEG   2SG   SBJ   fear
'Don't be afraid!'

3.37   ni**msəkóy** ni**m**háʃikat nin aláqqam!
ni=   msəkoy   ni=   m   haʃi   -kat   ni=   n   alaqam
2SG   FUT.NEG   2SG   SBJ   look   VEN   2SG   GEN   back
'Don't look back (toward here)!'

If *-msəkoy* is followed by an unconjugated verb root, the injunction is even stronger than if it is followed by a conjugated verb with the Subjunctive *m-*, along the lines of

a direct order to not perform the action in question, as in Examples 3.38 through 3.40.

3.38   ni**msəkóy** kóy!
ni=   msəkoy   koy
2SG   FUT.NEG   go
         'You're not going!'

3.39   anji**msəkóy** ʃaw ás-a![94]
anji=   msəkoy   ʃaw   a=   sa   =a
2p'   FUT.NEG   show   3sg   DAT   3sg
'You (PL) are not going to show it to him!'

3.40   ni**msəkóy** marɣá aaró boorén aaɣoonén kan!
ni=   msəkoy   marɣa   aaro   boora   -en   aaɣo   -en   kan
2SG   FUT.NEG   marry   man   person PL   DEF   PL   in
'You cannot marry a man from among those people!'

In Example 3.41, the injunction is made even stronger by the presence of *kaaĺá* 'never'.

3.41   kaalá ni**msəkóy** ḍós tabárar aaɣó!
kaala   ni=   msəkoy   ḍos   tabarar   aaɣo
never   2SG   FUT.NEG   touch   girl   DEF
'You're never to touch that girl!'

Tense-Aspect-Mood

In addition to the pronominal clitics and the negation prefixes, Tagdal also includes a number of prefixes and a zero-prefix, which comprise its Tense-Aspect-Mood subsystem. With the exception of the Subjunctive, these typically occur after the negation and before the verb root. The three TAM markers in Tagdal are the Perfective zero morpheme, the Imperfective *b-*, the Modal *m-* and the Future *tə-*.

The perfective aspect is the default choice in most spoken discourse, as well as with stative verbs. It denotes an action that took place and is now finished, or in the case of stative verbs, something which is currently the case. The perfective aspect is marked by a zero morpheme before the verb root, as in Examples 3.42 through 3.47.

3.42   ɣakóy.
ɣa=   koy
1SG   go
'I left.'

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[94] Example 3-36 is an example of stress shifting to the Indirect Object.

3.43   niguun-á.
ni=   gun   =a
2SG   look   3SG
'You saw it.'

3.44   záɣnin, ánga ahóssay wúllen!
zaɣnin   anga   a=   hossay   wullen
wow   3SG.IND 3SG   beautiful very
'Wow, that one sure is beautiful!'

3.45   ʃiijí aaɣó, iriyíddəẓ.
ʃiiji   aaɣo   iri=   əddəẓ
night   DEF   1PL   tired
'That evening, we were tired.'

3.46   ʒaɣjí aaɣó, anjiyéji ɣáy ɣan aʃʃaɣál.
jaɣji   aɣo   anji=   yeji   ɣay   ɣa=   n   aʃʃaɣal
day   DEF   2PL   return   1SG   1SG   GEN   work
'That day, you (PL) gave me back my job.'

3.47   iʃídəwkat alkáma
i=   ʃidəw   -kat   alkama
3PL   collect   VEN   wheat
'They collected the wheat.

       jiirén aaɣoonén hóssaynen kan.
       jiiri   -en   aaɣo   -en   hossay   nen   kan
       day   PL   DEF   PL   beautiful ADJR.PL in
       on good days.'

Imperfective aspect, marked with the prefix *b-* before the verb root, indicates that an action was at one time the case, is presently the case, or that it is habitual, as Examples 3.48 through 3.53 demonstrate.

3.48   ɣab**ʃ**áw ísa-a.
ɣa=   b-   ʃaw   i=   sa   =a
1SG   IMP   show   3SG   DAT   3SG
'I was showing it to them.'

3.49   məʃiggá[95] ni**b**zə́kkənzər?

məʃigga	ni=	b-	zəkkənzər
why?	2SG	IMP	frown

'Why were you frowning?'

3.50   tazzóri aaɣó a**b**əyiṣ nin!

tazzori	aaɣo	a=	b-	əyiṣ	nin
hyena	DEF	3SG	IMP	stalk	2SG.IND

'That hyena was stalking you!'

3.51   iri**b**téraw!

iri=	b-	teraw
1PL	IMP	be related

'We're related!'

3.52   məʃiggá anji**b**háʃi ʃaaráyyen?

məʃigga	anji=	b-	haʃi	ʃaaray	-en
why?	2PL	IMP	look	friend	PL

'Why are you (i.e. standing there) looking at each other?'

3.53   i**b**hangá nd-i.

i=	b-	hanga	nda	=i
3PL	IMP	accompany	with	3PL

'They hang out with them.'

In the Abargan and Kəl Illokoḍ varieties of Tagdal, in relaxed conversation the Imperfective marker *b-* is realised as [f] if the following conconant is voiceless. For example *abkóy* 'he is going' is pronounced [afˈkɔj] and abtʃin 'he says' is pronounced [afˈtʃin].[96] This phenomenon also occurs among speakers of the Kəl Amdid / Tarbun variety of Tagdal, but seems to be rare and most common among older speakers.

French loan words beginning with /p/ are regularly pronounced with /f/. For example, *photocopies* would be pronounced [fottokoˈfitan] and *projet* would be pronounced [faɾoːˈʒe].

The Subjunctive marker *m-* indicates that the action in question should or needs to happen. In some cases, the the Subjunctive can be used to give an order in a softer manner (see Section 4.9).

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[95] The question word məʃiggá 'why?', a combination of *məʃʃi* 'what?' and the postposition *ga* 'on', is treated here as a single word, rather than as two words, for phonological reasons. First, stress in the first part *məʃʃi* seems to disappear, occurring instead on the final syllable *ga*. Second, where the /ʃ/ would normally be long if *məʃʃi* were alone, the presence of *ga* seems to cancel out this long consonant, shifting it instead to the /g/.

[96] [afˈtʃi] in the Abargan variety

3.54   nin addə́ləl ga, ɣamkóy.
ni=   n   addələl   ga   ɣa=   m-   koy
2SG   GEN   fault   on   1SG   SBJ   go
'I need to go because of you.'

3.55   nimkámba káyaatan kullú.
ni=   m-   kamba   kayaatan   kullu
2SG   SBJ   hand   baggage   all
'You need to take charge of all the baggage.'

3.56   amna ìnsa nìn azzúrəya.
a=   m-   na   in=   sa   ni=   n   azzurəya
3SG   SBJ   give   2SG   DAT   2SG   GEN   inheritance
'He needs to give you your inheritance.'

3.57   irimzumbúunaan-a
iiri=   m-   zumbu   -nan   =a
1PL   SBJ   descend   ALL   3SG
'Let's go down there.'

3.58   anjimsə́nfu təgúuʒi n ʃəddáy.
anji=   m-   sənfu   təguuji   n   ʃədday

2PL   SBJ   recline   tree   GEN   under
'You (PL) should rest under a tree.'

In Example 3.59, the presence of the independent pronoun, followed by the Emphatic marker *da*, indicate a strong topicalisation of the Subject.

3.59   ínga da, imjéwab ínsa.
inga   da   i=   m-   jewab   in=   sa
3PL   EMPH   3PL   SBJ   respond   2SG   DAT
'They're the ones who should answer you.'

Tagdal marks the Future tense with the prefix *tə-*, after the negation marker and before the verb root. It denotes an action which in principle will occur at some point, but has not happened yet. The Future is the only TAM marker in Tagdal which cannot occur with a negation. Therefore, Tagdal depends on a number of other markers and syntactic structures to negate the Future. Examples 3.60 through 3.65 demonstrate.

3.60   mórnan, ɣatəbáq tassáhar!
mor   -nan   ɣa=   tə-   baq   tassahar
far   ALL   1SG   FUT   break   door
'Move away, I'm going to break (down) the door!'

3.61   nín, nibyédma
nin   ni=   b-   yedma
2SG.IND   2SG   IMP   think
'You? You think

                        sa intǝʃí íirin amanókal?
                        sa   in=   tǝ-   ʃi   iiri=   n   amanokal
                        SBDR   2SG   FUT   be   1SG   GEN   chief
                        that you're going to be our chief?'

3.62   wáy aaɣó, atǝʃí ánga fóoda.
way   aaɣo   a=   tǝ-   ʃi   anga   fo   da
woman   DEM   3SG   FUT   be   3SG.IND   one   emph
'That woman is going to be all alone.'

3.63   ámmaaka ha ʒí ǝdá, iritǝbún!
ammaaka   ha   ʒi   ǝ-   da   iri=   tǝ-   bun
if   thing   MED   SUB.REL   do   1PL   FUT   die
'If THAT happens, we'll die!'

3.64   ámmaaka anjidá ha aaɣó ɣahár, anjitǝ́ddǝr.
ammaaka   anji=   da   ha   aaɣo   ɣa=   har   anji=   tǝ-   ǝ́ddǝr
if   2PL   do   thing   DEM   1SG   say   2PL   FUT   live
'If you do what I say, you will live.'

3.65   tǝzzár, im món itǝfér.
tǝzzar   i=   n   mo   -n   i=   tǝ-   fer
then   3PL   GEN   eye   PL   3PL   FUT   open
'Then their eyes will be opened (i.e. they will understand).'

In many cases, Tagdal speakers perceive the Subjunctive and the Future as almost identical, and will use them interchangeably, even from one sentence to the next, with all the other essential elements identical. Examples 3.66 and 3.67 are part of just one conversation in which the Subjunctive and the Future were used fairly interchangeably. Regardless, this issue requires more study.

3.66   nimʃín ása
ni=   m-   ʃin   a=   sa
2SG   SBJ   say   3SG   DAT
'(Please) tell him

    sa bəssə́ba ɣatətéenan-a.

sa	bəssəba	ɣa=	tə-	te	-nan	=a
SBDR	tomorrow	1SG	FUT	arrive	ALL	3SG

    that tomorrow I'll arrive over there.'

3.67   áaywa, haʒiddá,[97] **nimtéenan** bəssə́ba.

aaywa	hajidda	ni=	m-	te	-nan	bəsəba
yes	exactly	2SG	SBJ	arrive	ALL	tomorrow

Yes, that's right, you should be arriving over there tomorrow.

Suffixes

A number of elements follow the verb root in Tagdal. Most of these are bound morphemes, such as the directional suffixes *-kat* and *-nan*, as well as the Direct Object proclitic. This section will include these, as well as a discussion of the Dative marker *sa* and the Indirect Object.

Venitive *-kat*

The Venitive suffix *-kat*, or *-kaat* when followed by a vowel, indicates that the action is moving toward the speaker, as Examples 3.68 through 3.71 indicate.

3.68   ʃin ása amkóy**kat**.

ʃín	a=	sa	a=	m-	koy	-kat
say	3SG	DAT	3SG	SBJ	go	VEN

'Tell him to come here.'

3.69   nimguuná**kat** ha aaɣó ɣakəmmá.

ni=	m-	guuna	-kat	ha	aaɣo	ɣa-	kəmma
2SG	SBJ	look	VEN	thing	DEF	1SG	find

'Come look at what I found.'

3.70   álwaq aaɣó kan,

alwaq	aaɣo	kan
moment	DEF	in

'In that instant,

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[97] *haʒiddá* 'exactly that' is comprised of three elements, *ha* 'thing', the Medial demonstrative *ʒi* and the Emphatic marker *da*. However, for similar phonological reasons as in the case of *məʃiggá* 'why?', here it is treated as a single word.

ɣayígra**kat** sa irimbún.

ɣa=	əgra	-kat	sa	iri=	m-	bun
1SG	understand	VEN	SBDR	1PL	OPT	die

the understanding came to that we were going to die.'

3.71   má**ŋkat**, ɣamguuná**kat** nin!

man	-kat	ɣa=	m-	guuna	-kat	nin
approach	VEN	1SG	SBJ	look	VEN	2SG

'Come closer (so that) I might look at you!'

Allative *-nan*

The Allative suffix *-nan*, or *-naan* when followed by a vowel, occurs relatively infrequently, especially in contrast to the Venitive *-kat*.[98] In general, *-nan* indicates that the action is moving away from the speaker, as in Examples 3.72 through 3.74.

3.72   iiridáw**naan**-a nda-a.

iiri=	daw	-nan	=a	nda	=a
1PL	send	all	3SG	with	3SG

'We sent her there with him.'

3.73   sa bəssə́ba, atée**nan**.

sa	bəssəba	a=	te	-nan
SBDR	tomorrow	3SG	arrive	ALL

'The next day, he arrived there.'

3.74   daáɣo aaɣó amór**nan**.

daaɣo	aaɣo	a=	mor	-nan
place	DEF	3SG	far	ALL

'That place is far.'

There is one case in the database where *-kat* and *-nan* have a sort of derivational function, contrasting to form different meanings when affixed onto the same root. The root *day*, more or less meaning 'make a deal', when combined with the Allative and Venitive, give the root different meanings, at least from the outsider's perspective: *dáykat* 'buy' and *dáynan* 'sell'. Similarly, it might be possible to make the case that *koy* 'go', when combined with *-kat* becomes *kóykat* 'come'. However, *kóynan* 'go there' does not seem to be as common, and does not share quite the same nuances as *dáynan* 'sell'. Rather, *kóynan* 'go there' is rather unusual and limited to situations where the destination is already known. This is possibly because the default meaning of *koy* already implies moving away from. Regardless, the question of whether the

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[98] In principle, though -kat means that the direction of the action is toward the speaker, in truth it occurs often enough that in speakers' minds there is little distinction in meaning between a verb root with -kat and one without it, especially in non-movement verbs.

directional markers *-kat* and *-nan* actually function as derivational morphemes with any other roots, and what relation, if any, they may have to Tuareg directional markers (see, for example, Lux 2011: 389) requires further study.

Direct Object

Finally, the Tagdal verb ends with the pronominalised third person singular or plural Direct Object clitics *=a* and *=i*. All other Direct Objects, when a pronoun rather than with a Noun Phrase, are independent pronouns, as Table 3-82 indicates.

Table 3-82 pronominal Direct Object markers

	singular	plural
first	ɣaay	iiri
second	nin	anʒi
third	=a	=i

Examples 3.75 and 3.76 demonstrate how the pronominalised Direct Object functions.

3.75 daaɣó aaɣó kan, iiridáykaat-**a**

daaɣo	aaɣo	kan	iiri=	daykat	=a
place	DEF	in	1PL	buy	3SG

'It was in that place that we bought it.'

3.76 sa atóonaan-**i**, an-**í** izzé sa.

sa	a=	to	-nan	=i	a=	na	=i	izzen	sa
SBDR	3SG	fill	ALL	3PL	3SG	give	3PL	child	DAT

'When he filled them up, he gave them to the children.'

In Examples 3.77 and 3.78, stress in the verb falls on the final syllable of the root. However, since in each case the final vowel is elided before the next vowel, stress shifts to the Direct Object.

3.77 anjimhang-í, imʒáaw **anʒi**.

anji=	m	hanga	=i	i=	m-	jaw	=anʒi
2PL	SBJ	hear	3PL	3PL	SBJ	help	2PL

Listen to them so that they can help you (PL).

3.78 ikəmm **íiri** táffaala kan.

i=	kəmma	=iri	tafaala	kan
3p	find	1p	hut	In

They found us in the hut.

In short, the verb word in Tagdal consists of three prefixes which occur before the verb root: the pronominal clitic, which indicates the Subject; the Negation, which includes a Perfective, Imperfective and Subjunctive Negation; and the Tense-Aspect-Mood subsystem. This includes a zero morpheme for the Perfective, as well as an Imperfective, a Subjunctive and a Future.

The verb in Tagdal also comprises of two suffixes, which occur after the verb root. These include a directional suffix, with *-kat* indicating that the action is moving toward the speaker and *-nan*, which indicates that it is moving away. The final suffix in the verb is then the First and second person plural and third person singular and plural pronominal clitics, which indicate the Direct Object.

Dative Indirect Object

The postposition Dative marker *sa* indicates the Indirect Object which typically carries the Beneficiary or UNDERGOER role. More importantly, however, when the Indirect Object is an attached clitic pronoun instead a Noun Phrase, the PRON-*sa* construction forms an accentual unit with the Verb Phrase. Table 3-83 indicates the form of the clitic pronoun Indirect Object which attaches onto the Dative marker *sa*.

Table 3-83 pronominal clitics with the Dative sa

	singular	plural
first	áɣ=sa	íiri=sa
second	ín=sa	ánʒi=sa
third	á=sa	í=sa

Another key point is that Tagdal's default clausal word order is SVO. However, when both the Direct and Indirect Objects are present, the Indirect Object, indicated with the Dative *sa*, precedes the Direct Object. The Direct Object will appear either as a NP following the Dative *sa*, the third person proclitics *=a* or *=i* attached to the end of *sa* as bound morphemes, or as first of second person independent pronouns, as Table 3-84 indicates.

Table 3-84 non-NP Direct Objects following Dative sa

	singular	plural
first	sa ɣaay	s íiri
second	sa nin	s ánʒi
third	s-a	s-i

The presence of both the Indirect Object and Direct Object clitics and pronouns effect the overall Verb Phrase in certain ways. First, if the verb root ends with a vowel, it will elide before the Indirect Object clitic attached to the Dative *sa*. Second, if the

Direct Object following *sa* begins with a vowel, the final vowel in *sa* will also elide.[99] Finally, the primary stress of the Verb Phrase, and therefore, of the clause, will shift onto the Indirect Object clitic. Examples 3.79 through 3.81 demonstrate these processes.

3.79 zawkat **áɣ**sa aʃʃáhi.

zaw	-kat	ɣa=	sa	aʃʃahi
take	VEN	1SG	DAT	tea

'Bring me some tea.'

3.80 may əšin **ín**sa sa intəkóy?

may	ə-	šin	in=	sa	sa	ni=	tə-	koy
who	SUB.REL	say	2SG	DAT	SBDR	2SG	FUT	go

'Who told you that you were going?'

3.81 irihaar **ánʒi**sa, anjiməd-á!

iri=	har	anʒi=	sa	anʒi=	m-	sə-	da	=a
3SG	declare	2PL	DAT	2PL	SBJ	NEG.IMP	do	3SG

'We told you (PL) not to do it!'

In Examples 3.82 through 3.84, the final vowel in the verb root is elided before the Indirect Onject.

3.82 ad **á**sa man Máno.

a=	da	a=	sa	man	Mano
3SG	do	3SG	DAT	name	Mano

'He named him Mano.'

3.83 an **íri**sa móota aaɣó.

a=	na	iri=	sa	móota	aaɣo
3SG	give	1PL	DAT	car	DEF

'He gave us that car.'

3.84 id **íiri**sa ha horráanan.

i=	da	iiri=	sa	ha	horra	-nan
3PL	do	1PL	DAT	thing	bitter	ADJR

'They made for us something bitter (i.e. made our lives miserable).'

Finally, in Examples 3.85 and 3.86, the final vowel of the Dative *sa* is elided in the presence of the Direct Object clitic or pronoun.

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[99] Otherwise, it will not. For example, the unlikely sentence *asəkn áysa ɣaay* 'he showed me to myself', where the final vowel in *sa* does not elide because the Direct Object *ɣaay* does not begin with a vowel, is theoretically possible.

3.85   an **ín**s-i.
a=   na   ni=   sa   =i
3SG   give 2SG DAT 3PL
'He gave them to you.'

3.86   iiriqaran **í**s-a.
iri=   qaran i=   sa   =a
1PL   read   3PL DAT 3SG
'We read it to them.'

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