

# Verb Classes and Verbal Suffixation in Nawdem

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June 15, 1998

## 1 INTRODUCTION

Nawdem, a language of the Gur family, has a verbal system divided primarily along the lines of aspect. That is, verbal forms may generally be classified into perfective forms, which encode the idea of completion of actions, and imperfective forms, which do not imply completion. The production of these forms further divides the verbal system into two classes of verbs, as will be seen. In this paper it is proposed to examine the verbal morphology of Nawdem, to examine how the various forms of a given verb are produced, and to show how knowledge of one verb form can be used to predict the remaining verb forms for any given verb. The study here is limited to the morphology of individual verbs, together with some of their segmental phonology, and does not extend to the pattern of verbal auxiliaries and to tonal alternations.

## 2 VERB CLASSES

Nawdem seems to have two major groupings of verbs, as evidenced by the formation of perfectives and imperfectives. These groups will be referred to under the names “Class I” and “Class II.” Class I is characterized by perfective forms ending in *-ra*, as opposed to Class II, in which perfectives end in *-e*. The distinction between these classes is not arbitrary, but rather seems to be one of phonology. The evidence for a phonological distinction is as follows<sup>1</sup>:

- Given any arbitrary verb from Class I, its negated imperfective and perfective forms are identical, except in a few suppletive verbs (such as *eat*) that can be taken to be derived from multiple stems. These

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<sup>1</sup>This evidence can be verified by viewing the verb chart for imperatives, on page 6, and the chart for imperfectives and perfectives, on page 8.

negated forms are reduced with respect to the non-negated imperfective and perfective forms.

- Given a verb from Class II, its negated imperfective and perfective forms differ from each other with respect to their final vowel (the negated Class II imperfective and perfective forms generally end in a vowel, although the perfective *-e* can optionally be dropped), which is predictably *-a* for imperfectives and can be *-e* or *-a* for perfectives.
- Negated imperfective and perfective forms of Class II are not reduced with respect to the non-negated forms, except for the so-called “VP /n/”, which is added to the non-negated forms in both classes.
- Class I negated forms generally end in a vowel as well, but the nature of the vowel is unpredictable. Exceptions are *baw* (“steal”) and *ham* (“mix”), which will be examined below.
- Class I imperatives have only a single form, which ends in a vowel (except for *baw* and *ham*, as before).
- Class II imperatives resemble Class II negated perfectives, and may similarly end in *-e* or *-a*.

The fact that Class I negated forms are reduced with respect to the non-negated forms, together with the fact that their final vowels are unpredictable and the fact that their perfective and imperfective forms are identical, indicates that these forms reflect the underlying stem from which the other verb forms are produced. The Class II negated forms, on the other hand, are characterized by predictable final vowels, which can be taken as evidence that the vowels are added to a consonant-final stem. Thus it is reasonable to conclude that Class I is comprised of verbs whose underlying stems end in a vowel, and Class II is comprised of verbs whose underlying stems end in a consonant.

There are, however, a number of problems for this analysis. First of all, the verb *baw* (“to steal”), which acts as a member of Class I, seems to end in a consonant. However, when this verb is placed in a relative clause, the imperfective form shows up as *bawo*:

- (1) *bī: bèm bāvò bī:*  
 what you+n-rel steal-impf it(be)+spec  
 what you are stealing

Relative clause imperfectives of Class I verbs are generally the bare imperfective stem. This form suggests that the stem for “to steal” might be underlyingly /bawo/ or /bao/, which cannot surface as such due to phonotactic constraints forbidding onsetless syllables and forbidding sequences of unrounded and rounded vowels separated only by glottal stops.

Another problematic case is the verb *ham* (“to mix”). Here this might be a mistranscription of *hamə*, as there was early disagreement over whether to transcribe the reduced vowels that appear in certain words after nasals, resolved in favor of not transcribing them. As support for this position, the non-negated perfective form of this verb is *haməra*.

Finally, the verbs identified as “Class II.2”, that is, *fuwa* (“blow”), *ta:* / *to* (“give”), *la:* / *loa* / *lo/loa* (“put in”), and *tarowa/taro* seem as though they might have vowel-final stems. However, they can be analyzed as being underlyingly /w/-final, as evidenced by the existence of imperfective forms *fuwa*, *towa*, *lowa*, and *tarowa*. The perfective forms can be explained by dropping of final /e/, and the imperfective forms *la:* and *ta:* can be explained by hypothesizing a reduction of the initial syllable in *lowa* and *towa*, followed by deletion of [w] from the illegal sequences [lw] and [tw].

## 2.1 VERBAL SUB-CLASSES

Each verb class has been divided into three subclasses according to minor differences in the formation of perfectives and imperfectives. Inconsistencies in the data for the Class I verbs, together with the general poverty of the data there forbids an analysis of those differences. In Class II we have already seen the subclass II.2, which is characterized by verb stems ending in /w/. All Class II verbs are characterized by perfectives ending in /-e/ and imperfectives ending in /-a/. Class II.3 verbs can be distinguished from Class II.1 and Class II.2 verbs in virtue of the fact that their perfective forms end in /-ege/. In general, the subclasses of Class II can be distinguished from one another on phonological grounds. In particular, verb stems ending in /d/, /t/, or /l/ fall into Class II.3, stems ending in /w/ fall into Class II.2, and all other consonant-final verb stems fall into Class II.1.

## 2.2 REPEATED AND ONCE VERBS

Some Nawdem verbs belong to two classes simultaneously. For any given verb of this type, half of its forms will belong to class II.3, and the other half will be members of Class I or Class II.1, depending upon the verb. The forms in class II.3 denote single actions—single performances of an action or

performance of the action upon a single object—and the other forms denote multiple actions or multiple objects. The following evidence bears upon the matter:

- All recorded *once* verbs appear to have stems ending in /-d/, as evidenced by their imperfective forms: *waʔada*, *bugəda*, *seʔeda*, *togəda*, and *gbuda*. An apparent exception is *dʒita*, which has a surface [t].
- The repeated forms for these verbs lack the /d/ ending, except for *dʒita*, which will be examined later. The repeated forms can be divided into two groups: *dʒide*, *waʔa*, *toge*, and *gbu*, which are Class I verbs, and *seʔer* and *bugur*, which are Class II.1 verbs.

These data can be analyzed by hypothesizing that the repeated forms are basic, and that the single-action forms are produced by adding /-d/ to the stem of the repeated verb, thus resulting in a Class II.3 verb. Complications then arise due to the phonology. In repeated verb stems ending with /r/, the following phonological rule applies:  $r \rightarrow \emptyset / \_d$ , thus explaining *seʔer* and *bugur*. A similar rule is active in the Class I perfectives:  $d \rightarrow r / \_ \sigma$  [r]. This rule helps to explain why the imperfective form *kude* alternates with perfective *kurra*. A feeding rule is needed, however, to set up the [dr] environment, one that deletes vowels between certain coronal clusters—something like the following:  $e \rightarrow \emptyset / d\_ [+coronal]$ . This rule can be seen independently in the perfective form [dra] (“has eaten”) from underlying /de+ra/. Given these rules, we can hypothesize that the underlying stem for “to cut repeatedly” is /dʒide/ (this form can be seen in the imperative), that the addition of /-d/ to form the single action form of the verb produces [dʒided], which is simplified to [dʒidd], which is in turn simplified to [dʒit] by another rule:  $dd \rightarrow t$ .

### 3 FORM-BY-FORM ANALYSIS

The information presented above allows us to determine the underlying stem for most verbs. We now turn to the problem of producing the various surface forms given the underlying form.

#### 3.1 IMPERATIVES

Imperatives are formed from the perfective stem of the verb, for verbs with more than one underlying stem. If the stem ends in a vowel, the imperative is exactly the underlying stem. Otherwise, /-e/ or /-a/ can be added to the

stem (/e/ is optionally dropped). Imperatives suffixed with /-a/ cannot take objects. For verbs of class II.3, the imperative is formed by suffixing /-eg/ to the verb stem, then adding /-e/ or /-a/.

### 3.2 IMPERFECTIVES

Imperfectives of Class I.1 (the other subclasses are marginal and data is lacking) are formed differently depending on the context in which they appear. In all contexts other than in wh-questions, negations, relative clauses, and clefts, /-n/ is added to the imperfective stem. It is likely that this /-n/ appears in wh-questions, relative clauses, and clefts as well, but in those clauses the /-n/ appears in clause-second position (after the wh-word or the subject) rather than after the verb. In main clauses of simple declarative sentences and yes-no questions, where the verb is not negated, an additional /-n/ is added if the verb is not followed by an object or adverb. Thus *ɲi* becomes *ma ɲinen* (“I am drinking”) or *ma ɲin wem* (“I am drinking quickly”).

Imperfectives of Class II are formed by adding /-a/ to the imperfective stem. To this is added /-n/ in main clauses of simple declarative sentences and yes-no questions, if the verb is not negated and if it is not followed by an object or adverb. In fact, this /-n/ is added to all verbs in this context, regardless of whether they are imperfective or perfective, and regardless of their verb class.

### 3.3 PERFECTIVES

Non-negated perfectives of Class I verbs are formed by adding /-ra/ to the perfective stem. In wh-questions, relative clauses, and clefts, however, they are formed by adding /-re/. Class II verbs simply add /-e/. After this, the final /-n/ may appear, in the appropriate context (see the previous section).

### 3.4 GERUNDIVES

Gerundives are formed by adding noun class markers for either the noun class *be* or the noun class *me* to the imperfective verb stem. Class I verbs tend to add *be*, and the Class I verbs that also allow *me* assign specialized meanings to those gerundives. Class II.3. verbs generally form gerundives by adding *me*. Adding *be* to Class II.3. verbs forms a gerundive with a more active, less abstract meaning, and the gerundives so formed must take an object. Other Class II verbs seem to be able to add *be* or *me* interchangeably.

### 3.5 AGENTIVES

Agentives are formed by adding /-ta/ or /-da/ to either the perfective or imperfective verb stem. The resulting noun is of the *we* class. Verb stems ending in vowels tend to prefer to add /-da/, and the others prefer /-ta/. When both forms exist, the dispreferred form often has a specialized meaning.

### 3.6 CONTINUATIVES

Continuatives are formed by adding /-ʔo/ to the perfective stem, with /-eg/ added to class II.3 verbs. These are preceded by the normal imperfective or perfective forms, with the exception that imperfectives with progressive meaning are indicated by lengthening the final vowel, and the final vowel of the imperfective or perfective verb form is given a high tone.

### 3.7 SUBJUNCTIVES

Perfective subjunctives are generally identical to the negated perfective. In Class I, imperfective subjunctives are formed by adding /-m/ to the imperfective stem. In Class II, imperfective subjunctives are formed by adding /-m/ to the imperfective stem, but first adding the perfective /-e/ or /-ege/ (for Class II.3.).

## A VERB CHARTS

### A.1 IMPERATIVES

Translation	Neg. Impf.	Neg. Perf.	Imperative
CLASS I			
Forms with imperfective ending in /e/ and perfective ending in /ra/			
search	bage (14-1)	bage (14-2)	bage (10)
cultivate	kɔ (14-4)	kɔ (14-5)	kɔ (10)
drink	ŋi (14-7)		ŋi (10)
take	lɔge (14-8)		lɔge (6-1)
die	kpu (14-9)	kpi (14-10)	kpi (496)
eat	dʒu (14-12)	de (14-13)	de (G25-15)
blow (of wind)	fuge (14-36)	fuge (14-38)	fuge (14-39)
attach-rep	tógé (16-30)	tógé/á (16-31/DB932)	tógé (16-32)
see	jú(nà) (1070)	jé (1071)	jé (1075)
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Translation	Neg. Impf.	Neg. Perf.	Imperative
invent			kúidé (DB918)
cut-rep			dʒídé/á (DB922)
surpass	jágé (DB1202)	jágé (DB1199)	
Forms with imperfective ending in /a/ and perfective ending in /ra/			
steal	baw (14-14)	baw (14-14)	baw (10)
plant	bo:de (14-16)	bo:de (14-17)	bo:de (10)
hit-rep	waʔe (14-18)	waʔe (14-19)	wáʔ(á/é) (779)
do	ʔɛ (14-20)	ʔɛ (14-22)	ʔɛ (662)
give	saʔa (14-23)	si (14-24)	si (687)
mix	ham (14-25)	ham (14-26)	ham (745)
cook	do:ge (14-58)		dó:gé (17-8)
Forms with imperfective ending in $\emptyset$ and perfective ending in /ra/			
beat-rep	ǰbu (14-27)	ǰbu (14-28)	ǰbu (12-1)

CLASS II

Forms with imperfective ending in /a/ and perfective ending in /e/			
hunt (beat bush)	ja:ge ba:go (14-29)	ja:ge ba:go (14-30)	ja:ge ba:go (10)
bury	kura: (14-31)	kure/a (14-32)	kure (10)
prepare	mangela (14-33)	mangele/a (14-34)	mangela/e (10)
blow (of wind)	hura (14-35)	hure/a (14-37)	hura (10)
blow (person?)	fura (14-46)	fure/a (14-47)	fura (10)
come	kɛma (14-48)	dana (14-49)	dà:n(á) (799)
go	kɛde (14-50)	sana/(e) (14-53)	kèdá/sáná (800/801)
sing	joma (14-54)	jom(a/e) (14-55)	jom(a) (705)
sleep/lie down	dɔ:ta (14-56)	dɔ:ta/e (14-57)	dɔ:ta/e (709)
cook/put on fire	dégá: (19-1)	dege/a (14-59)	dege/a (710)
leave	ɲeba (14-60)	ɲebe/a (14-61)	ɲaba (B25-12)
suffer	wɛ:ra (14-62)	wɛ:ra (14-65)	--- (12-7)
respect	bu:ɲga (14-68)	bu:ɲge/a (14-69)	bu:ɲge/a (12-14)
want	bágé (14-70)	bá:gè (14-71)	--- (12-20)
fall (once)	lá:jà: (1066)	lá:(j) (1068)	laja/i (291)
walk	newra (15-1)	newre (15-2)	newre/a (15-3)
ask	ǰbama (15-8)	ǰbam(*e) (15-9)	ǰbam(a) (15-10)
arrive	tá:nà (15-15)	tâ:n(à) (15-16)	ta:n(a) (B25-33)
burn	bó:là (15-21)	bó:lè (15-22)	bó:lá/é (15-23)
fall-rep	lotra (15-27)	lotre (15-28)	lótré (12-27)
deny/contradict	kéjâ (1197)	kéjà/kê: (1198)	kèjà/kê: (1194)
spit-rep	sé?èrá (16-7/16-8)	sé?èré/á (16-9)	sè?èré/á (16-10)
burn-rep	búgèrá (16-1)	búgùré (16-2)	bùgùré (1223)
enter			dʒube (DB983)

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Translation	Neg. Impf.	Neg. Perf.	Imperative
Forms with imperfective ending in /a/ and perfective ending in ∅			
blow (person)	fuwa (15-29)	fuwa (15-30)	fuwa (10)
give	ta: (15-31)	to (15-32)	to (672)
put in	la:/loa (15-36)	ló/loa (15-37)	lo (694)
touch			tarow(a) (DB1061)
Forms with imperfective ending in /a/ and perfective ending in /ege/			
peer	lo:da/lo (15-40)	lo:dege (15-41)	lò:dègé/á (15-43)
burn (once)	búgádá (1212)	búgádègè (1213)	bugege (10)
spit (once)	sé?édá (16-5)	sé?édègá/é (16-6)	se?edege/a (10)
hit (once)	wá?ádá (16-19)	wá?ádègè (16-20)	wa?adege (4-1)
attach (once)	tógádá (16-24)	tógádègè (16-25)	tugædege (5-1)
cut (once)	dzítá (19-2)	dzítégé (19-3)	dzítògá/é (B212-10)
leave	wé?édá (19-4)	wé?édégé (19-5)	əga (B25-23)
send	tólá (19-6)	tólégé (19-7)	tóləge (Ba23-1)
beat	gbúdá (19-8)	gbúdégé (19-9)	gbùdègè (11-11)
lay/put			dò:légé (DB831)
surface			mɛ?edege (DB995)
cut			sɛ?edege (DB1975)
Other			
tell	bà?á (19-22)	bàré (19-24)	bàré (19-23)
split			bà:gá (DB585)
try			mágé <sup>1</sup> (DB893)
exit			rédé (DB989)
submerge			mi?i (DB996)
jump-rep/bounce			forow (DB906)

## A.2 IMPERFECTIVES AND PERFECTIVES

Translation	Neg. Impf.	Neg. Perf.	Imperfective	Perfective
CLASS I				
Forms with imperfective ending in /e/ and perfective ending in /ra/				
search	bage (14-1)	bage (14-2)	bagen(en) (10)	bagera(n) (10)
cultivate	kɔ (14-4)	kɔ (14-5)	kɔ:ne(n) (10)	kɔra(n) (10)
drink	ɲi (14-7)		ɲine(n) (10)	ɲira(n) (10)
take	lɔge (14-8)		loge(ne) (497)	lɔgra(n) (499)
die	kpu (14-9)	kpi (14-10)	kpune(n) (494)	kpirra(n) (493)
eat	dzu (14-12)	de (14-13)	dzu((ne)n) (503)	dera(n) (718)
blow (of wind)	fuge (14-36)	fuge (14-38)	fugen(en) (14-40)	fùg(ə)rà(ń) (14-41)
attach-rep	tógé (16-30)	tógé/á (16-31/DB932)	tògón(en) (DB931)	tògèrrá (DB926)
see	jú(nà) (1070)	jé (1071)	ju(n) ,juna ,june (C35-11)	jɛna (C33-2)
<i>continued on next page</i>				



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Translation	Neg. Impf.	Neg. Perf.	Imperfective	Perfective
sleep			g̀̀n(én) (DB811)	
invent			k̀̀d̀̀n(én) (DB920)	k̀̀rrà(ń) (DB919)
cut-rep				d̀̀z̀̀rràń/d̀̀z̀̀rrá (DB923)
surpass	jáǵé (DB1202)	jáǵé (DB1199)	jáǵén (DB1213)	jáǵrà (DB1195)
disappear				bíré(n) (DB1479)
Forms with imperfective ending in /a/ and perfective ending in /ra/				
steal	baw (14-14)	baw (14-14)	bawa(n) (10)	bawəra(n) (10)
plant	bo:de (14-16)	bo:de (14-17)	bo:da(n) (10)	bo:rra(n) (10)
hit-rep	waʔe (14-18)	waʔe (14-19)	waʔana (4-13)	waʔarra(n) (4-18)
do	ʔɛ (14-20)	ʔɛ (14-22)	ʔena(n) (663)	ʔera(n) (665)
give	saʔa (14-23)	si (14-24)	saʔane (690)	sira(n) (691)
mix	ham (14-25)	ham (14-26)	hama(n) (746)	haməra(n) (747)
cook	do:ge (14-58)		do:ga(n) (711)	d̀̀:ǵrà (17-10)
Forms with imperfective ending in ∅ and perfective ending in /ra/				
beat-rep	ǵbu (14-27)	ǵbu (14-28)	ǵbun (C23-5)	ǵbu:rra (C25-5)

CLASS II

Forms with imperfective ending in /a/ and perfective ending in /e/				
hunt (beat bush)	ja:ge ba:go (14-29)	ja:ge ba:go (14-30)	ja:ga ba:go (10)	ja:ge ba:go (10)
bury	kura: (14-31)	kure/a (14-32)	kura(n) (10)	kure (10)
prepare	mangela (14-33)	mangele/a (14-34)	mangela(n) (10)	mangele (10)
blow (of wind)	hura (14-35)	hure/a (14-37)	hura(n) (10)	hure(n) (10)
blow (person?)	fura (14-46)	fure/a (14-47)	fura(n) (10)	fure (10)
come	kɛ:na (14-48)	dana (14-49)	kɛ:nǎ:(n) (802)	dá:nó(n) (805)
go	kɛde (14-50)	sana/(e) (14-53)	kɛ:dǎ:(n) (803)	sánó(n) (805)
sing	joma (14-54)	jom(a/e) (14-55)	joma(n) (753)	jom(en) (754)
sleep/lie down	dɔ:ta (14-56)	dɔ:ta/e (14-57)	dɔ:ta (734)	dɔ:te (735)
cook/put on fire	dégǎ: (19-1)	dege/a (14-59)	dègà(ń) (17-9)	dege (C122-2)
leave	ɲeba (14-60)	ɲebe/a (14-61)	ɲaba(n) (B25-14)	ɲabe(n) (B25-16)
suffer	wɛ:ra (14-62)	wɛ:ra (14-65)	wɛ:ra (C33-10)	wɛ:re (C33-11)
respect	bu:ŋga (14-68)	bu:ŋge/a (14-69)	bu:ŋga (C33-18)	bu:ŋge (C33-19)
want	báǵé (14-70)	bá:ǵè (14-71)	ba:ga(n) (C33-20)	ba:ge (C33-22)
fall (once)	lájǎ: (1066)	lǎ:(j) (1068)	laja (292)	laje(n) (B25-6)
walk	newra (15-1)	newre (15-2)	newra(n) (299)	newre (302)
ask	ǵbama (15-8)	ǵbam(*e) (15-9)	ǵbama (8-13)	ǵbam(en) (10)
arrive	tá:nà (15-15)	tâ:n(à) (15-16)	ta:nna(n) (B25-35)	ta:nne(n) (B25-38)
burn	bó:là (15-21)	bó:lè (15-22)	bo:la (407)	bo:le (396)
fall-rep	lotra (15-27)	lotre (15-28)	lótrá (13-14)	lótrè (13-15)
deny/contradict	kéjǎ (1197)	kéjǎ/kè: (1198)	kèjǎ(ń) (1200)	kè:n (1202)
spit-rep	séʔerà (16-7/16-8)	séʔéré/á (16-9)	sèʔerà(ń) (16-11)	sèʔèʔrè(ń) (16-12)

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Translation	Neg. Impf.	Neg. Perf.	Imperfective	Perfective
burn-rep sit/float enter float enter push return get dark forget surround build approach	búgerá (16-1)	búgùré (16-2)	bùgùrà(ń) (1221) dɛwra(n) (DB911) dʒuba (DB987) bɛʔera(n) (DB914) dʒuba (DB987) heʔa (DB1084) mètègà(ń)/mètà(ń) (DB1092)  kóglá (1093)  ɲòʔrà (DB1397)	bùgùrè(ń) (1222) dɛwre(n) (DB912) dʒùbé (DB912)  dʒube (DB984) heʔe (DB1083) mètègè(ń) (DB1091) hàwè(ń) (DB1488) húnjé (DB1577) kɔgle (1097) mɛʔèrè (DB955) ɲóʔórè (DB1393)
Forms with imperfective ending in /a/ and perfective ending in Ø				
blow (person) give put in touch	fuwa (15-29) ta: (15-31) la:/loa (15-36)	fuwa (15-30) to (15-32) ló/loa (15-37)	fuwa (10) ta:/towa (675/676) la:/lowa (699/700) tàròwà (DB1057)	fú: (10) to lo (698) tàròw (DB1064)
Forms with imperfective ending in /a/ and perfective ending in /ege/				
peer burn (once) spit (once) hit (once) attach (once) cut (once) leave send beat laugh lay/put slide pass/move fly jump (once) descend throw happen melt rest upon frighten	lo:da/lo (15-40) búgódá (1212) séʔédá (16-5) wáʔádá (16-19) tógódá (16-24) dʒítá (19-2) wéʔédá (19-4) tólá (19-6) ḡbúdá (19-8)	lo:dege (15-41) búgódègè (1213) séʔédègá/é (16-6) wáʔádègè (16-20) tógódègè (16-25) dʒítégé (19-3) wéʔédégé (19-5) tólégé (19-7) ḡbúdégé (19-9)	lò:dà(ń) (15-44) bugeda(n) (10) seʔeda(n) (10) waʔada (484) togeda (491) dʒita(n) (B212-11) weʔeda(n) (B25-25) tɔla (Ba23-3) ḡbùdá (11-12)  dó:lá (DB832)  dʒétá (DB1279) bìdà(ń) (DB54)  tamda (DB1086)	lò:dègè (15-47) bugədege (10) seʔedege (10) waʔadege (4-14) togədege (488) dʒitege (B212-13) weʔedege(n) (B25-27) tɔlege (Ba23-5) ḡbùdègè (11-13) làʔàdègá (DB1483)  hɛdege (DB903) dʒetege (DB999) bidege (DB1008) fɔrge (DB1009) su:lege (DB1010) tamdəge (DB1085) ḡbùʔùdègè (DB1273) nìndègè (DB1284) dɛwlègè (DB1511) dʒèlègè (DB1285)
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<i>continued from previous page</i>				
Translation	Neg. Impf.	Neg. Perf.	Imperfective	Perfective
stand			dzi?era (DB900)	dzi?èlègé (DB1510)
think/believe			dílá/dí:lá (DB571)	dílègè (DB1442)
finish				fétégé (DB588)
meet			ḡbù?ùlà(ń) (DB1264)	ḡbù?ùlègè(ń) (DB1263)
happen				índzòṅgè (DB595)
separate			jèdà (DB1269)	jèdègè (DB1268)
widen				jádégé (DB1495)
hang			lilà (DB1396)	lílégé (DB1500)
emerge				mè?edege (DB995)
cross				mèwdege (DB1338)
open				ródégé (DB1467)
put on				téwàlègé (DB1621)
become				tindəge (DB1603)
find/pick up			túdá (DB1505)	tùdègé (DB1502)

Other

peer-rep			lō:n(e) (15-46)	
tell	bà?á (19-22)	bàrè (19-24)	ba?a (C35-12)	bàda (B212-9)
split			ba:ga(n) (DB587)	
possess				jòṅgé (DB634)
dance			hawa(n) (DB814)	
bounce				forow (DB908)
bounce/convulse			ti?ira(n) (DB909)	
sit			kada(n) (DB916)	
exit				reda (DB992)
submerge			mi?a: (DB998)	
shake			dama(n) (DB1007)	
roll				bìriw (DB905)
fill				dágé (DB1389)

A.3 GERUNDIVES

Translation	Neg. Impf.	Neg. Perf.	-be Gerundive	-m Gerundive
CLASS I				
Forms with imperfective ending in /e/ and perfective ending in /ra/				
search	bage (14-1)	bage (14-2)	bagəbe (10)	---
cultivate	kɔ (14-4)	kɔ (14-5)	kpə:be (10)	kpám (17-1)
drink	ɲi (14-7)		ɲebe (10)	
take	loge (14-8)		lógóbé (775)	
die	kpu (14-9)	kpi (14-10)	kpube (17-3)	kpum (17-2)
eat	dzu (14-12)	de (14-13)	dzube (C35-6)	

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<i>continued from previous page</i>				
Translation	Neg. Impf.	Neg. Perf.	-be Gerundive	-m Gerundive
blow (of wind)	fuge (14-36)	fuge (14-38)	fugebe (14-42)	--- (18-38)  góm (DB810)
attach-rep	tógé (16-30)	tógé/á (16-31/DB932)	tògàbé (18-38)	
see	jú(nà) (1070)	jé (1071)	ju:be (C35-3)	
sleep				
surpass	jágé (DB1202)	jágé (DB1199)		
Forms with imperfective ending in /a/ and perfective ending in /ra/				
steal	baw (14-14)	baw (14-14)	babe (10)	
plant	bo:de (14-16)	bo:de (14-17)	bodebe (10)	
hit-rep	wa?e (14-18)	wa?e (14-19)	wá?ábé (780)	
do	?E (14-20)	?E (14-22)	?ebe (666)	
give	sa?a (14-23)	si (14-24)	sa?abe (692)	
mix	ham (14-25)	ham (14-26)	hàm:bé (790)	
cook	do:ge (14-58)		do:gò:be (C127-1)	
Forms with imperfective ending in Ø and perfective ending in /ra/				
beat-rep	ǵbu (14-27)	ǵbu (14-28)	ǵbu:be (C25-3)	

CLASS II

Forms with imperfective ending in /a/ and perfective ending in /e/				
hunt (beat bush)	ja:ge ba:go (14-29)	ja:ge ba:go (14-30)		ba:go ja:g(r)əm (10)
bury	kura: (14-31)	kure/a (14-32)		kurem (10)
prepare	mangela (14-33)	mangele/a (14-34)	mangelebe (10)	
blow (of wind)	hura (14-35)	hure/a (14-37)	hurebe (10)	húrém (17-4)
blow (person?)	fura (14-46)	fure/a (14-47)	furebe (10)	furem (17-4)
come	ke:na (14-48)	dana (14-49)	ké:ná (808)	da:neme (C219-1)
go	kede (14-50)	sana/(e) (14-53)	ké:ná (809)	sà:nám (810)
sing	joma (14-54)	jom(a/e) (14-55)	jòmbé (752)	
sleep/lie down	do:ta (14-56)	do:ta/e (14-57)		do:tem (740)
cook/put on fire	dégã: (19-1)	dege/a (14-59)		dégém (17-6)
leave	ɲeba (14-60)	ɲebe/a (14-61)		ɲe:bem (C35-2)
suffer	wɛ:ra (14-62)	wɛ:ra (14-65)	wɛ:rebe (17-14)	--- (12-9)
respect	bu:ŋga (14-68)	bu:ŋge/a (14-69)	bù:ŋgébé (12-16)	bù:ŋgém (12-15)
want	bágé (14-70)	bá:gè (14-71)	bág(ə)bé (12-21)	
fall (once)	lájã: (1066)	lã:(j) (1068)	lájèbé (17-16)	lájém (12-26)
walk	newra (15-1)	newre (15-2)	nèw:rèbé (15-4)	
ask	ǵbama (15-8)	ǵbam(*e) (15-9)	ǵbàm:bé (15-11)	
arrive	tá:nà (15-15)	tã:n(à) (15-16)		da:neme/tã:ném (C219-1/17-17)
burn	bó:là (15-21)	bó:lè (15-22)	bò:lèbé (17-19)	bò:lém (17-18)
fall-rep	lotra (15-27)	lotre (15-28)	lòtrèbé (12-25)	
deny/contradict	kéjã (1197)	kéjà/kè: (1198)	kè:bé (17-25)	kè:m (1203)
spit-rep	sé?èrà (16-7/16-8)	sé?èré/á (16-9)	sè?èrèbé (16-13)	

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<i>continued from previous page</i>				
Translation	Neg. Impf.	Neg. Perf.	-be Gerundive	-m Gerundive
burn-rep enter enter	bùgèrá (16-1)	bùgùré (16-2)	bùgùràbè (16-3) dzùbém (988)	dzubem (DB988)
Forms with imperfective ending in /a/ and perfective ending in Ø				
blow (person) give put in touch	fuwa (15-29) ta: (15-31) la:/loa (15-36)	fuwa (15-30) to (15-32) ló/loa (15-37)	furebe (10)  tàròwbé (DB1063)	fùwóm (17-20) to:me/tòwóm (677/17-22) lo:me/lò:m (701/17-23)
Forms with imperfective ending in /a/ and perfective ending in /ege/				
peer burn (once) spit (once) hit (once) attach (once) cut (once) leave send beat laugh lay/put jump (once) find/pick up	lo:da/lo (15-40) bùgódá (1212) sé?édá (16-5) wá?ádá (16-19) tógódá (16-24) dzítá (19-2) wé?édá (19-4) tólá (19-6) gbúdá (19-8)	lo:dege (15-41) bùgódègè (1213) sé?édègá/é (16-6) wá?ádègè (16-20) tógódègè (16-25) dzítégé (19-3) wé?édégé (19-5) tólégé (19-7) gbúdegé (19-9)	bugedegebe (17-26) se?edegebe (17-28) wa?adegebe (17-29) togadegebe (17-30) dzitgebe (17-31) we?edegebe (17-32) tolagebe (17-33) gbudegebe (17-34)	lò:dègém (15-48) bugedegem (10) se?edegem (10) wa?adəgəm (716) tògədègém (16-26) dzitegem we?edegem tolagem gbudegem lá?ádəgəm (DB824) dò:ləgém (DB834) fórəgém(e) (DB1282) túdègém (DB1503)
Other				
tell split be dance jump-rep/bounce	bà?á (19-22)  kpa?a	bàré (19-24)  kpa?a	ba?e:be (C35-4) bá:gèbé (DB588) be:b (DB673) fóròwbé (DB1281)	   hàmté (DB815)

#### A.4 AGENTIVES

Translation	Neg. Impf.	Neg. Perf.	Agentive
CLASS I			
Forms with imperfective ending in /e/ and perfective ending in /ra/			
search cultivate drink take die eat	bage (14-1) kɔ (14-4) ɲi (14-7) loge (14-8) kpu (14-9) dzu (14-12)	bage (14-2) kɔ (14-5)  kpi (14-10) de (14-13)	bágád/tá (10) kɔpam kpa:da (10) ɲi:da (10) ló(ó)t/dá (776) --- de:da/dzu:da (345/346)
<i>continued on next page</i>			

<i>continued from previous page</i>			
Translation	Neg. Impf.	Neg. Perf.	Agentive
blow (of wind)	fuge (14-36)	fuge (14-38)	fuget/da (14-43)
attach-rep	tógé (16-30)	tógé/á (16-31/DB932)	tógótà (18-37)
see	jú(nà) (1070)	jé (1071)	jú:t/dá (1077)
surpass	jágé (DB1202)	jágé (DB1199)	
Forms with imperfective ending in /a/ and perfective ending in /ra/			
steal	baw (14-14)	baw (14-14)	bawda (10)
plant	bo:de (14-16)	bo:de (14-17)	bodeta (10)
hit-rep	wa?e (14-18)	wa?e (14-19)	wá?ád/tá (781)
do	?E (14-20)	?E (14-22)	?É?éd/tá (784)
give	sa?a (14-23)	si (14-24)	sá?ád/tá (787)
mix	ham (14-25)	ham (14-26)	hâ:mt/dà (791)
cook	do:ge (14-58)		do:gada (C23-17)
Forms with imperfective ending in Ø and perfective ending in /ra/			
beat-rep	g̃bu (14-27)	g̃bu (14-28)	g̃burd/ta (C23-6)

CLASS II

Forms with imperfective ending in /a/ and perfective ending in /e/			
hunt (beat bush)	ja:ge ba:go (14-29)	ja:ge ba:go (14-30)	ba:go jagəda/jágèrtà (13-10)
bury	kura: (14-31)	kure/a (14-32)	kure:ta/kudta/kurta (10)
prepare	mangela (14-33)	mangele/a (14-34)	mangeleta (10)
blow (of wind)	hura (14-35)	hure/a (14-37)	hureta (10)
blow (person?)	fura (14-46)	fure/a (14-47)	fureta (10)
come	kɛ:na (14-48)	dana (14-49)	---
go	kɛde (14-50)	sana/(e) (14-53)	sá:ná (811)
sing	joma (14-54)	jom(a/e) (14-55)	jômd/tà (818)
sleep/lie down	dɔ:ta (14-56)	dɔ:ta/e (14-57)	--- (821)
cook/put on fire	dégã: (19-1)	dege/a (14-59)	dégédá (17-11)
leave	ɲeba (14-60)	ɲebe/a (14-61)	ɲèbtá (12-4)
suffer	wɛ:ra (14-62)	wɛ:ra (14-65)	wɛ:rta/ɛ (13-13)
respect	bu:ŋga (14-68)	bu:ŋge/a (14-69)	--- (12-17)
want	bágé (14-70)	bá:gè (14-71)	bág(ə)t/dá (12-22)
fall (once)	lájà: (1066)	lâ:(j) (1068)	lájétá (13-20)
walk	newra (15-1)	newre (15-2)	newreta (15-5)
ask	g̃bama (15-8)	g̃bam(*e) (15-9)	g̃ba:mt/dà (15-12)
arrive	tá:nà (15-15)	tâ:n(à) (15-16)	ta:nta (15-18)
burn	bó:là (15-21)	bó:lè (15-22)	
fall-rep	lotra (15-27)	lotre (15-28)	lotreta (12-12)
deny/contradict	kéjã (1197)	kéjã/kè: (1198)	kè:t/dà (1204)
spit-rep	sé?èrá (16-7/16-8)	sé?èré/á (16-9)	sè?èrètà (16-14)
burn-rep	búgèrá (16-1)	búgùré (16-2)	bùgèrtà (16-4)

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<i>continued from previous page</i>			
Translation	Neg. Impf.	Neg. Perf.	Agentive
Forms with imperfective ending in /a/ and perfective ending in $\emptyset$			
blow (person)	fuwa (15-29)	fuwa (15-30)	fureta (10)
give	ta: (15-31)	to (15-32)	tart/da (15-33)
put in	la:/loa (15-36)	ló/loa (15-37)	ló:tá (15-38)
touch			tàròwtà (DB1066)
Forms with imperfective ending in /a/ and perfective ending in /ege/			
peer	lo:da/lo (15-40)	lo:dege (15-41)	lo:degeta (15-49)
burn (once)	búgádá (1212)	búgádègè (1213)	bugudeta (10)
spit (once)	sé?édá (16-5)	sé?édègá/é (16-6)	se?edegeta (10)
hit (once)	wá?ádá (16-19)	wá?ádègè (16-20)	wá?ádégétá (16-21)
attach (once)	tógódá (16-24)	tógódègè (16-25)	tògòdègètá (16-27)
cut (once)	džítá (19-2)	džítégé (19-3)	džitègètá (19-10)
leave	wé?édá (19-4)	wé?édégé (19-5)	wé?èdègètá (19-11)
send	tólá (19-6)	tólégé (19-7)	tóm:dà/tà (19-12)
beat	gbúdá (19-8)	gbúdégé (19-9)	gbúdà (19-13)
Other			
peer-rep			lò:dá (15-39)
tell	bà?á (19-22)	bàrè (19-24)	

#### A.5 IMPERFECTIVE CONTINUATIVES

Translation	Neg. Impf.	Imperf. Cont.
CLASS I		
Forms with imperfective ending in /e/ and perfective ending in /ra/		
search	bage (14-1)	bagene bago (10)
cultivate	kɔ (14-4)	kɔa: kɔ?o (10)
drink	ɲi (14-7)	ɲija: ɲi?o (10)
take	lɔge (14-8)	loge lógó (777)
die	k̄pu (14-9)	k̄pùn kéhím (11-16)
eat	dʒu (14-12)	dʒùwā: dʒū:ʔó (794)
blow (of wind)	fuge (14-36)	fùgā: fùgó (14-44)
attach-rep	tógé (16-30)	tògàn tògó (18-39)
see	jú(nà) (1070)	
surpass	jágé (DB1202)	
Forms with imperfective ending in /a/ and perfective ending in /ra/		
steal	baw (14-14)	bawa bawo (10)
plant	bo:de (14-16)	bo:da bodo (10)
hit-rep	wa?e (14-18)	wà?án wà?à?ó (782)
do	?ɛ (14-20)	?ɛna ?ɛ:ʔo (667)
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<i>continued from previous page</i>		
Translation	Neg. Impf.	Imperf. Cont.
give	saʔa (14-23)	sáʔán(ón) sàʔáʔó (788)
mix	ham (14-25)	hama hámó (792)
cook	do:ge (14-58)	dò:gǎ: dógò (12-2)
Forms with imperfective ending in $\emptyset$ and perfective ending in /ra/		
beat-rep	ǧbu (14-27)	ǧbùwǎ: ǧbù:ʔó (797)

CLASS II

Forms with imperfective ending in /a/ and perfective ending in /e/		
hunt (beat bush)	ja:ge ba:go (14-29)	ja:ga ba:go (10)
bury	kura: (14-31)	kugen kugo (10)
prepare	mangela (14-33)	mangela:ʔa mangelo (10)
blow (of wind)	hura (14-35)	hura huro (10)
blow (person?)	fura (14-46)	fura furo (10)
come	kɛ:na (14-48)	dʒùbòná dʒùbéʔò (813)
go	kɛde (14-50)	kédá: kédò (814)
sing	joma (14-54)	jùmǎ: jùmó (819)
sleep/lie down	dɔ:ta (14-56)	dòrǎ: dò:ró (823)
cook/put on fire	dégǎ: (19-1)	dègǎ: dègó (17-12)
leave	ɲeba (14-60)	ɲèbǎ: ɲébò (12-5)
suffer	wɛ:ra (14-62)	wè:rǎ: wè:ró (12-10)
respect	bun̄ga (14-68)	bùn̄gǎ: bù:n̄gó (12-18)
want	bágé (14-70)	bàgǎ: bágó (12-23)
fall (once)	lǎ:jǎ: (1066)	lǎjǎ lǎjóʔó (13-18)
walk	nɛwra (15-1)	nèwǎ: nèwróʔ (15-6)
ask	ǧbama (15-8)	ǧbámá ǧbámó (15-13)
arrive	tá:nà (15-15)	tànǎ: tà:nóʔ (15-19)
burn	bó:là (15-21)	bò:lǎ: bò:lóʔ (15-25)
fall-rep	lotra (15-27)	lòtrǎ: lòtréká (13-16)
deny/contradict	kéjǎ (1197)	kèjǎ: kè:ʔò (1206)
spit-rep	séʔèrá (16-7/16-8)	sèʔerǎ: sèʔèró (16-17)
burn-rep	bùgèrá (16-1)	bùgùrǎ: bùgù (1218)
enter		dʒùbòná dʒùbéʔò/dʒùbó (DB1660)
Forms with imperfective ending in /a/ and perfective ending in $\emptyset$		
blow (person)	fuwa (15-29)	fura furo (10)
give	ta: (15-31)	ta: to:ʔo (678)
put in	la:/loa (15-36)	lowa la (702)
touch		tàròwǎ: tàrówʔó (DB1068)
Forms with imperfective ending in /a/ and perfective ending in /ege/		
peer	lo:da/lo (15-40)	lòdǎ: lòdègó (15-50)
burn (once)	bùgódǎ (1212)	bùgùdǎ: bùgùdègó (1215)
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Translation	Neg. Impf.	Imperf. Cont.
spit (once)	séʔédá (16-5)	sèʔédá sèʔèdègó (16-15)
hit (once)	wáʔádá (16-19)	wàʔádá: wàʔádègó (16-22)
attach (once)	tógódá (16-24)	tògədá: tògədègó (16-28)
cut (once)	dʒítá (19-2)	dʒítá dʒítègó (19-14)
leave	wéʔédá (19-4)	wèʔédá wèʔèdègò (19-16)
send	tólá (19-6)	tòlègá:/tòlá: ... (19-18)
beat	ǰbúdá (19-8)	ǰbùdà ǰbùdègó (19-20)
Other		
tell	bàʔá (19-22)	

## A.6 PERFECTIVE CONTINUATIVES

Translation	Neg. Perf.	Perf. Cont.
CLASS I		
Forms with imperfective ending in /e/ and perfective ending in /ra/		
search	bage (14-2)	bagera bago (10)
cultivate	kɔ (14-5)	kɔra kɔʔo (10)
drink		ɲira ɲiʔo (10)
take		lɔgra lógó (778)
die	ǰpi (14-10)	ǰpùrà kéhím (11-17)
eat	de (14-13)	dèrà dè:ʔó (795)
blow (of wind)	fuge (14-38)	fùgərə fùgó (14-45)
attach-rep	tógé/á (16-31/DB932)	tògòrà tògó (18-40)
see	jé (1071)	
surpass	ǰágé (DB1199)	
Forms with imperfective ending in /a/ and perfective ending in /ra/		
steal	baw (14-14)	bawəra bago (10)
plant	bo:de (14-17)	bo:rra bodo (10)
hit-rep	waʔe (14-19)	wàʔàʔó (783)
do	ʔɛ (14-22)	ʔèrà ʔè:ʔó (786)
give	si (14-24)	sìrà sì:ʔó (789)
mix	ham (14-26)	haməra hámó (793)
cook		dò:grá dògó (12-3)
Forms with imperfective ending in $\emptyset$ and perfective ending in /ra/		
beat-rep	ǰbu (14-28)	ǰbùrà: ǰbù:ʔó (798)
CLASS II		
Forms with imperfective ending in /a/ and perfective ending in /e/		
hunt (beat bush)	ǰa:ge ba:go (14-30)	ǰa:ge ba:go (10)
<i>continued on next page</i>		

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Translation	Neg. Perf.	Perf. Cont.
bury	kure/a (14-32)	kugra kugo (10)
prepare	mangele/a (14-34)	mangele mangelo (10)
blow (of wind)	hure/a (14-37)	hure huro (10)
blow (person?)	fure/a (14-47)	fure furo (10)
come	dana (14-49)	---
go	sana/(e) (14-53)	--- (817)
sing	jom(a/e) (14-55)	jũm jũmó (820)
sleep/lie down	dɔ:ta/e (14-57)	--- (824)
cook/put on fire	dege/a (14-59)	dègè dègò (17-13)
leave	ɲɛbe/a (14-61)	--- (12-6)
suffer	wɛ:ra (14-65)	--- (12-13)
respect	bunɲge/a (14-69)	bùnɲgè: bùnɲgò (12-19)
want	bá:gè (14-71)	bàgàrà bàgò (12-24)
fall (once)	lâ:(j) (1068)	làjé làjò?ó (13-19)
walk	newre (15-2)	nèwré nèwró? (15-7)
ask	ḡbam(*e) (15-9)	ḡbã:m ḡbãmó (15-14)
arrive	tân(à) (15-16)	tã:n tã:nó? (15-20)
burn	bó:lè (15-22)	bò:lé bò:ló? (15-26)
fall-rep	lotre (15-28)	lòtré lòtrèká (13-17)
deny/contradict	kéjà/kè: (1198)	kè: kè:?ó (1209)
spit-rep	sé?éré/á (16-9)	sè?éré sè?èró (16-18)
burn-rep	bùgùré (16-2)	bùgùrá/é bùgò (1219)
Forms with imperfective ending in /a/ and perfective ending in Ø		
blow (person)	fiwa (15-30)	fure furo (10)
give	to (15-32)	tó: tó?ò (15-34)
put in	ló/loa (15-37)	lò: ló?ò (15-35)
touch		tàró:w tàrów?o (DB1069)
Forms with imperfective ending in /a/ and perfective ending in /ege/		
peer	lo:dege (15-41)	lò:dègè: lòdègò (15-51)
burn (once)	bùgádègè (1213)	bùgùdègè bùgùdègò (1216)
spit (once)	sé?édègá/é (16-6)	sè?édègè sè?èdègò (16-16)
hit (once)	wá?ádègè (16-20)	wà?ádègè wà?àdègò (16-23)
attach (once)	tógádègè (16-25)	tògàdègè tògàdègò (16-29)
cut (once)	džítégé (19-3)	džítègè džítègò (19-15)
leave	wé?édégé (19-5)	wè?èdègè w?èdègò (19-17)
send	tólégé (19-7)	tòlègè tòlègò (19-19)
beat	ḡbùdégé (19-9)	ḡbùdègè ḡbùdègò (19-21)
Other		
tell	bòré (19-24)	
<i>continued on next page</i>		

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Translation	Neg. Perf.	Perf. Cont.
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