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A diachronic semantic map of the Optative negative in Beja (North-Cushitic)

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Abstract: The Optative negative of Beja is a multifunctional paradigm which encodes optative, hortative and jussive grammatical meanings, depending on the person, as well as participant-internal and participant-external modalities of impossibility and unnecessity. It is also the sole paradigm licensed in balanced embedded clauses. Based on a large corpus of naturalistic first-hand data, this study analyses the various uses of the paradigm, provides an account of its evolution from the pre-modal stage to the post-modal stage on the basis of language internal morpho-syntactic cues, and proposes a diachronic semantic map, based on van der Auwera and Plungian (1998) model. It shows that semantic maps are not only useful for typological purposes, but also for language internal studies, helping understand the semantic shifts that occurred in the grammar of unwritten languages with no recorded history.

Keywords: Beja, Cushitic, semantic map, Optative, modality

1 Introduction

In a previous study (Vanhove 2011), I made a first attempt to propose a *synchronic* semantic map of the Optative negative in Beja. Since then, further research on the language prompted me to revise quite drastically the analysis of my increasing data, and consequently the semantics of this verb form, so that I am now able to propose a *diachronic* semantic map of the "classical" type (see Georgakopoulos and Polis (2018) for an overview of the different models of semantic maps).

Over two decades ago van der Auwera and Plungian (1998) proposed a cross-linguistic modality semantic map,[1] which covers both participant-internal and participant-external modalities, and shows "relevant connections between modal, pre-modal, and post-modal meanings or uses" (van der Auwera and Plun-

1 Itself a development of Bybee, Perkins and Pagliuca's (1994) analysis.

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gian 1998: 79; see also Narrog and van der Auwera 2011). The aim of the present research is restricted to just one language, and aims to see whether and how the evolution of a Beja multi-functional verb form, the so-called "Optative negative", fits (or not) into their model, can be accounted for diachronically, and can be visualized on a classical semantic map.

The article is organized as follows: Section 2 presents general information about the language and the typological features relevant for a better understanding of the Beja data and analysis; Section 3 analyses the various functions of the Optative negative; Section 4 discusses the diachronic data on which the semantic map is built, before the general conclusion in Section 5.

2 Beja typological profile

Beja (*ISO* 639–1, *glottolog* beja1238), locally named *biḍawije:t*, is the sole language of the North-Cushitic branch of the Afroasiatic phylum. It is lexically and grammatically quite distant from its closest Lowland East and Central Cushitic relatives, Afar-Saho and Agaw, and is considered as peripheral within the Cushitic family. It is spoken in the northernmost part of the Cushitic-speaking area (Figure 1), mainly in Eastern Sudan, where I did my fieldwork, by some 2,000,000 speakers, and Northern Eritrea (approx. 60,000 speakers).

Even if Beja dialectology is still in need of in-depth studies, what is already known led linguists to consider that dialects are not much differentiated. Three main dialectal zones are identified (Morin 1995): North, Centre (from where most of my data come), and South, which have further local and tribal-based subdivisions (Wedekind 2012). Dialects are differentiated on the basis of vocalic isoglosses, pronominal sets, morphological use of pitch accent for plural formation, accommodations of Arabic loans and some lexical peculiarities.

Beja has a rich and complex morphology, flexional and derivational, both in the nominal and verbal domains. It is partly templatic for verb inflexion and derivation, noun formation, verb-noun derivation, adjective and plural formation. Beja is also partly agglutinative-fusional, with suffixes and enclitics (the majority), as well as prefixes and proclitics, which are often portmanteau morphemes, as e. g. the definite article.

It is a marked nominative language with four nominal cases, two for the verb core arguments, nominative and accusative, and two for noun phrases, genitive and vocative. Pronouns have two additional cases, dative and ablative.

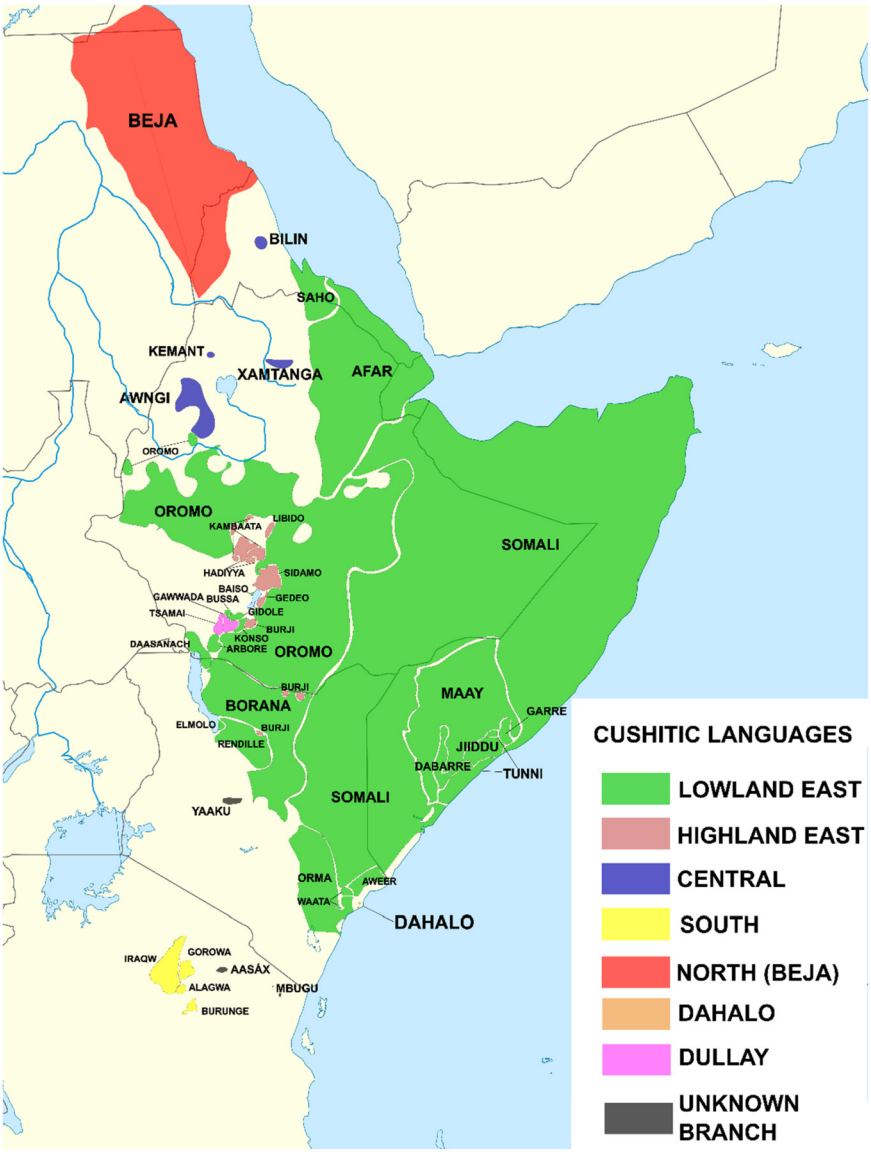

Figure 1: Map of Cushitic languages including Beja (Picture by Noah edits, edited by Julien Cooper – https://commons.wikimedia.org).

Syntactically, Beja is predominantly head-final; the canonical constituent order is (X)(S)(O)V, and dependent clause – matrix clause. Constituent order is not particularly rigid and may vary for pragmatic reasons.

Verbs can be finite or non-finite. There are two morphological verb classes. V1 has prefixed flexional morphemes (indexing person, number and gender) for monosyllabic stems (V1a), partly infixed for the singular of disyllabic stems (V1b); 2PL and 3PL plural indices are suffixes; the stem varies according to TAM. This verb class contains the majority of the verbs (57 %, Vanhove 2017), and is historically the oldest verb class. V2 verbs have only suffixes, and an invariable stem; they represent a common Cushitic innovation. A system of semantic and voice derivation involving ablaut, reduplication and affixal devices (pluractional, intensive, middle, passive, reciprocal, causative, and marginally double causative) complements the verb system. The non-finite forms amount to four converbs labelled General, Sequential, Simultaneity and Manner. They are used in deranked subordinate clauses; the Manner and General converbs can also be used as auxiliated forms in complex predicates.

In the Indicative, finite basic paradigms are organized in a three-term aspectual system, which distinguishes, through flexional morphemes (and apophony in the stem for V1), Perfective, Imperfective and Aorist, which index also the person, number and gender (only in 2SG and 3SG) of the subject. This system is enriched by a copula and ten auxiliaries that are used to form other TAM, Perfect, Future and Desiderative among them.

Modal paradigms consist of an Imperative, a Prohibitive, an affirmative Optative, and a negative Optative, the latter being the main focus of this paper.

There are no indigenous modal verbs for possibility, capacity, or necessity modalities. Rarely, a loan verb from Arabic *agdir* / *adgir* 'can' is used for the expression of participant-internal possibility.[2]

3 Optative negative

The following study is based on a sound-indexed 10-hour corpus that I recorded in Sudan between 2001 and 2011, mainly in the village of Sinkat (central dialect), as well as in Wagar (South dialect), Erkowit and Port Sudan (North dialect).[3]

In this section I review the morphology of the Optative and discuss the multifunctionality and semantics of the negative form in synchrony.

2 For further details on the grammar of Beja, see Vanhove (2017).

3 The corpora are partly accessible online at https://corporan.huma-num.fr/Archives/corpus.php

3.1 Optative affirmative vs Optative negative

The affirmative and negative paradigms of the Optative share a common preverbal proclitic particle *bi*= (with a variant *ba*= in the negative 1SG due to vowel harmony with the initial flexional morpheme *a*-, and before an initial laryngeal). The distinction between the two is marked in the stem (for V1) and the flexional morphemes. In the affirmative, the stem of V1 is that of the Aorist, the flexional morphemes of both verb classes are those of the Aorist, and the order of the flexional morphemes is the same as in the Indicative for each verb class, i. e. prefixes for V1 and suffixes for V2. This is illustrated in Table 1.

Table 1: Optative affirmative paradigms.

	V2	**V1a**	**V1b**
	tam 'eat'	*dif* 'leave'	*kitim* 'arrive'
1SG	*bi=tam-i*	*bi=i:-dif*	*bi=i:-ktim*
2SG.M	*bi=tam-tija*	*bi=ti:-dif-a*	*bi=ti:-ktim-a*
2SG.F	*bi=tam-ti:*	*bi=ti:-dif-i*	*bi=ti:-ktim-i*
3SG.M	*bi=tam-i*	*bi=i:-dif*	*bi=i:-ktim*
3SG.F	*bi=tam-ti*	*bi=ti:-dif*	*bi=ti:-ktim*
1PL	*bi=tam-ni*	*bi=ni:-dif*	*bi=ni:-ktim*
2PL	*bi=tam-ti:n(a)*	*bi=ti:-dif-n(a)*	*bi=ti:-ktim-n(a)*
3PL	*bi=tam-i:n(a)*	*bi=i:-dif-n(a)*	*bi=i:-ktim-n(a)*

In the negative, both V1 and V2 are conjugated with prefixes, similar to those of the Perfective and Imperfective of V1 (minus the vowels due to the rules of syllabic structures).[4] The Ci:C and CaCi:C stems of V1 are those of the Imperfective (minus the flexional infix <*n*> for disyllabic V1b in the singular). These stems are also used for the Prohibitive, a frequent feature in Afroasiatic languages (as e. g. Arabic), and for the negative Simultaneity converb. In addition, gender polarity of 2SG is marked by suffixes, and plurality is marked by suffixes for 2PL and 3PL. V2, whose stems are invariable, have in addition to the prefixes a dedicated suffix in all singular persons and 1PL. Table 2 illustrates the paradigm for each verb class.

4 *n* comes from a verb meaning 'say', which has grammaticalized as an Imperfective marker, and is now part of the Imperfective inflexion (see Section 4).

Table 2: Optative negative paradigms.

	V2	**V1a**	**V1b**
	'eat'	'leave'	'arrive'
1SG	*ba=a-tam-aj / -ej*	*ba=a-di:f*	*ba=a-kati:m*
2SG.M	*bi=t-tam-aja / -eja*	*bi=t-di:f-a*	*bi=t-kati:m*
2SG.F	*bi=t-tam-aj / -ej*	*bi=t-di:f-i*	*bi=t-kati:m*
3SG.M	*bi=i-tam-aj / -ej*	*bi=i-di:f*	*bi=i-kati:m*
3SG.F	*bi=t-tam-aj / -ej*	*bi=t-di:f*	*bi=i-kati:m*
1PL	*bi-n-tam-aj / ej*	*bi=n-di:f*	*bi=n-kati:m*
2PL	*bi=t-tam-i:n(a)*	*bi=t-di:f-n(a)*	*bi=t-kati:m-n(a)*
3PL	*bi=i-tam-i:n(a)*	*bi=i-di:f-n(a)*	*bi=i-kati:m-n(a)*

3.2 Optative negative in independent and coordinated clauses

The use of the Optative negative in independent and coordinated clauses is the less frequent one in my data, with only thirteen occurrences.[5] This verb form functions as a hortative with first persons, an optative with second persons, and a jussive with third persons.

The paradigm expresses a wish, an appeal to circumstances, not an order (which is encoded by the Prohibitive). Below are a few examples for each verb class (mentioned in the 3rd line) and person.[6]

(1) *ja ira:naj o:=jha:m ʈabʔ-a ba=a-kʷinh-aj*
VOC gosh DEF.SG.M.ACC=leopard hit\INT-IMP.SG.M OPT=1SG-shout-NEG.OPT
v2
'Gosh, hit the leopard, let me not shout at you!' (= I should not need to shout at you!)
(BEJ_MV_NARR_15_leopard_071)

(2) *ti=dirʔa han ba=a-ʃaga-am-aj*
DEF.F=field also OPT=1SG-work-MID-NEG.OPT
V2.DER
'Let me not work in the field anymore!' (= I should not work in the field any longer)
(BEJ_MV_NARR_02_farmer_143)

5 This count was only done in the easily searchable 2:30 hour-online data available at https://corporan.huma-num.fr/Archives/corpus.php

6 There are no occurrences of 2PL and 3PL in my textual data. The free translation lines are followed by the reference to the online corpus from which the examples are extracted.

(3) *har?i:=isi:si* *bi=t-j?-a=he:b*
after=POSS.3SG.ABL opt=2SG-come-NEG.OPT.M=OBJ.1SG
v2.IRG
'May you (hyena) not come to me from behind me!' (= you should not come from behind me)
(BEJ_MV_NARR_05_eritrea_329)

(4) *ba=a-s-kati:m* *kass=e:*
OPT=1SG-CAUS-arrive\NEG.OPT all=POSS.3PL.ACC
v1b.DER
'Let me not make them all arrive!'
(BEJ_MV_NARR_55_tanduuy_106)

(5) *o:n* *i=k^{w}i:ri* *bi=n-hari:d*
PROX.SG.M.ACC DEF.M=ostrich OPT=1PL-slaughter\NEG.OPT
v1b
'Let's not slaughter this ostrich!' (= we should not slaughter this ostrich)
(BEJ_MV_NARR_38_ostrich_040-041)

The Optative negative can also be used for the expression of participant-external impossibility, as in (6).

(6) *<bani ?a:dam>* *han* *bi=i-hass-ej*
<son Adam> also NEG.OPT=3SG.M-pass-OPT
v2
'A human being could not even pass (in such a narrow canyon)!' (lit. Let not a human being pass!)[7]
(BEJ_MV_NARR_05_eritrea_178)

3.3 Optative negative in embedded clauses

By far the most frequent use of the Optative negative is in an embedded clause (67 out of 80 occurrences).[8] No other TAM is licensed in this syntactic context: the Optative negative is the only way to negate a verb in a balanced subordinate clause, be it a relative, complement, conditional or temporal clause. Note that with complex predicates, the form of the main verb is preserved, and it is the auxiliaries that are encoded with the form of the Optative negative.

7 This exclamatory utterance expresses the astonishment of the speaker when he found his donkey stuck on the other side of a narrow path in a canyon where even a much smaller human being could not make his way through. This is unrelated to rules of politeness as one of the anonymous reviewers suggested.

8 In the 2:30 hour-online data available at https://corporan.huma-num.fr/Archives/corpus.php

In conditional clauses, the Optative negative is just a plain negation. No modal value is perceived by the native speakers, whatever the TAM used, be it a simple predicate (7) or a complex predicate (8)–(10).

(7) *naː=t ho:k bi=i-dʔiː-n=eːk*
thing=INDF.F 2SG.DAT OPT=3-do\NEG.OPT-PL=if
'If they don't do anything to you...'
(BEJ_MV_NARR_08_drunkard_067)

(8) *oːn ani his=iː diːr-a=b*
PROX.SG.M.ACC 1SG.NOM voice=POSS.3SG.ABL kill-CVB.MNR=INDF.M.ACC
ba=a-kaːj=eːk
OPT=1SG-become\NEG.OPT=if
AUX.PRF[9]
'As for me, if I had not killed it with my voice...'
(BEJ_MV_NARR_40_camel_hyena_116-117)

(9) *i=rizg=oːk iː-hariw bi=t-diː-n=eːk*
DEF.M=job=POSS.2SG.ACC FUT.SG-seek OPT=2-say\NEG.OPT-PL=if
AUX.FUT[10]
'If you don't look for your livelihood...'
(BEJ_MV_NARR_18_Adam_devil_030)

(10) *ʃagaː-m-a ba=a-diː=eːk*
work-MID-CVB.MNR OPT=1SG-say\PFV.NEG.OPT=if
AUX.DES[11]
'If I don't want to work....'
(BEJ_MV_CONV_01_rich_SP2_138)

Example (11) illustrates the use of the Optative negative in a temporal clause, coordinated to another temporal clause, and expressing an alternative. Note that it is only the negative predicate which is in the Optative, not the affirmative one, which appears in the Indicative Imperfective.

9 The verb *ak* 'to become', from which *a-kaːj* is derived, is the auxiliary which, in the negative polarity, forms the Perfect paradigm when preceded by a Manner converb.

10 The future is formed with the auxiliary verb *di* 'to say' preceded by a frozen form derived from the Aorist for the main verb (glossed as FUT).

11 Like the Future, the Desiderative is formed with *di* 'say', but preceded by the Manner converb.

(11) *naː=t i-niːw=hoːb=wa*
thing=INDF.F 3SG.M-give\IPFV=when=COORD
bi=i-hiːw=hoːb=wa
OPT=3SG.M-give\NEG.OPT=when=COORD
'Whether he gives them or does not give them something,[12] (in both cases should they work?)' (lit. when he gives [them] something and when 'let him not give!']!)
(BEJ_MV_CONV_01_rich_SP1_176)

In relative and complement clauses,[13] the Optative negative adds modal values to the utterance, either participant-external (12)–(17) or participant-internal (18)–(19) modalities of impossibility, and also, but rarely, of unnecessity (20).

Participant-external impossibility

(12) *naː=t bi=t-katiːm=i mhiːn*
thing=INDF.F OPT=3SG.F-arrive\NEG.OPT=REL place
'A place where nothing can arrive...'
(BEJ_MV_NARR_05_eritrea_183)

(13) *alif=iː ba=a-mra-aj na*
thousand=ABL.SG OPT=1SG-find\MID-NEG.OPT thing
'A thing that I cannot find for one thousand (dirham)...'
(BEJ_MV_NARR_14_sijadok_303)

(14) *ittifaːgijaːj=t bi=t-ha=eːb*
convention=INDF.F OPT=3SG.F-be_there\NEG.OPT=REL.M
oː=mhiːn
DEF.SG.M.ACC=place
'To the point (lit. the place) where there is no (cannot be a) possible agreement.'
(BEJ_MV_CONV_01_rich_SP2_288)

12 'Them' (in both clauses) and 'something' (in the negative clause) are unexpressed.

13 There are several constructions to form relative and complement clauses. Some of these constructions are shared by both clause types. The markers used in the examples are the invariable *=i* (12), the clitics *ti=*, *=eːt*, *=eːb* which vary for gender (14)–(17) and (19)–(20), the combination of two markers *=eː* + *=na* (lit. 'thing') (18), and *=eːt* + *toː=na* (lit. 'the thing') (20). In some instances, no relative marker is used, as in (13). For a complete overview, see Vanhove (2017: 164–181).

(15) *alla:j ta:=rba* *ti=bi=i-far-aj-n=e:t*
God DEF.PL.F.NOM=mountain REL.F=OPT=3-jump-NEG.OPT-L=REL.F
i-sa:n-n=ho:k
3-wait\AOR-PL=OBJ.2SG
'God! may you find the mountains that cannot be jumped over!' (lit. the mountain that is not jumped was awaiting[14] you)
(BEJ_MV_NARR_25_orphan_153)

(16) *i-kte:ni* *bi=i-rh-aj=e:t* *to:=na*
3SG.M-know\MID.IPFV OPT=3SG.M-see-NEG.OPT=REL.F DEF.SG.F.ACC=thing
'It (porcupine) realizes that he (Adam) does not (cannot) see it (because it is dark).'
(BEJ_MV_NARR_18_Adam_devil_057)

(17) *i=ta:k^{w}-ana* *rh-a=b*
DEF.M=cook\INT-N.AGN see-CVB.MNR=INDF.M.ACC
bi=n-ka:j=e:t *m?ari* (...) *dha:j* *t-hirg^{w}a*
OPT=1PL-become\NEG.OPT=REL.F meal DIR 2.SG.M-be_hungry\AOR AUX.PRF
'A meal that, even if we could not see the cook (...) would make you hungry' (lit. a meal whose cook we have not seen (...) you would be hungry towards (it))
(BEJ_MV_NARR_57_Ababda_199)

Participant-internal impossibility

(18) *ho:j* *ti-mir-n=e:=na* *ti-kati=e:b*
ABL.3 2-find\PFV-PL=REL=thing 2SG-become\IPFV=REL.M
bi=t-ka:j=e:b *i-ndi*
OPT=2SG-become\NEG.OPT=REL.M 3SG.M-say\IPFV
'He wonders (lit. says) whether you can get something out of it or not.'
(BEJ_MV_NARR_18_Adam_devil_043-044)

(19) *i-ma:r* *ba=a-di=e:b* *hi:s-an*
FUT.SG-find\INT OPT=1SG-say\NEG.OPT=REL.M think-PFV.1SG
AUX.FUT
'I thought I would not find it'
(BEJ_MV_NARR_27_goat_049)

14 The verb *sini* 'to wait' is often used with the sense of 'to find', thus avoiding to mention the real actor of the quest, and making the object of the quest the syntactic subject.

Participant-internal unnecessity

(20) *e:-bi=e:t* *to:=na*
1SG-go\INT.IPFV=REL.F DEF.SG.F.ACC=thing
bi=t-ka:j=e:b *hi:s-ani*
OPT=3SG.F-become\NEG.OPT=REL.M think-IPFV.1SG
'I think that I should not go' (lit. I think that it does not become that I go)
(BEJ_MV_CONV_01_rich_SP2_141)

4 Diachronic semantic map

In order to better understand the diachronic evolution of the Optative negative, both morphologically and semantically, it is necessary to have a closer look at the evolution of the verb system as a whole, including the negative polarity.

Regarding the Indicative mood, the most widely accepted hypothesis[15] is the one proposed by Cohen (1972; 1973) and Zaborski (1975), who both refined Reinisch's (1893–1894) initial hypothesis. The scenario can be summarized as follows: the initial two-term aspectual system was partly renewed (only in the singular) by the grammaticalization of a new Imperfective paradigm stemming from a light verb construction with the quotative verb meaning 'say'. The grammaticalized construction led in turn to a drastic change of the aspectual values: the former Imperfective became the Perfective, and the former Perfective became the Aorist. Such an evolution is in line with the highly frequent use of the Imperfective in clause chaining after an initial Perfective within a coherent episode of a narrative in numerous Afroasiatic languages (Cohen 1984; 1989), Beja among them. This evolution is summed up in Table 3.

Table 3: Diachrony of Indicative paradigms.

Contemporary Beja	*Reconstructed forms and semantic values*
Imperfective	< *V1 stems Ci:C / CaCi:C + light verb 'say' (> V1a prefix, V1b prefix + infix; V2 suffix)
Perfective	< *Imperfective
Aorist	< *Perfective

15 Contra, see Voigt (1988: 397–405) who mainly based his arguments on typological grounds (e. g. the rarity of this formation in Afroasiatic languages) and Almkvist's (1881–1885) wrong analysis of the Beja basic verb forms (he considered as a basic form the middle derived form – which can be both transitive and intransitive, not only intransitive as claimed by Voigt).

A far as the negative polarity is concerned, the Beja system is asymmetrical, and shows traces of the former aspectual values of the verb forms:

– The *Imperfective negative* is based on today's *Perfective* affirmative paradigms for both verb classes, and negation is encoded with a proclitic particle *ki*= (*ka*= for 1SG).
– In the negative polarity, the Perfective, Aorist and Perfect are merged into the form of the Perfect, which is historically (and still transparently) based on the Manner converb followed by the nominal enclitic copula in matrix clauses. In dependent clauses, the copula is replaced by the auxiliary *ak* 'become, be' in the Optative negative form.

It is important to recall that the prefixed verb class (V1) is the oldest one in Cushitic languages. Several of them show more or less important traces of it, approx. 35 % in Afar (Lowland East-Cushitic), down to four to twelve verbs in some languages of the Omo-Tana group, and in South-Agaw (Central Cushitic) (Cohen 1988: 256; Gragg 2011: 45). As mentioned in Section 2, in Beja this verb class includes the majority of the verbs. We also saw that the Optative negative is the sole paradigm which bears prefixed flexional morphemes for both verb classes, a clear trace of its antiquity. By way of hypothesis, it is thus possible that the Beja Optative negative shows traces of a former Imperfective negative paradigm. This hypothesis is also supported by a widely spread evolution in numerous Afroasiatic languages (Cohen 1984; 1989): With the introduction of new paradigms, the old paradigms gradually become restricted to modal meanings and to dependent clauses, as it seems to be the case with the Optative negative in Beja.

As for the modality semantic map, van der Auwera and Plungian's (1998: 107, 109) crosslinguistic study shows that optatives may develop from participant-external possibility, a case of demodalization, (with a former stage of participant-internal possibility), but not the other way round. We saw above (Section 3) that there are still traces of the possibility modal meanings in independent clauses (ex. (6)), and more frequently in embedded clauses (Section 3.3). We also saw that in the majority of embedded clause types, participant-external and internal unnecessity and impossibility meanings are conveyed by the use of the Optative negative.

The diachronic semantic map for the Beja Optative negative (Figure 2) that can now be proposed actually conforms to the model in van der Auwera and Plungian (1998). What Beja adds does not concern the semantic map itself, but its pre-modal stage (which was not the main concern of their study), namely an Imperfective negative, but which is in line with their claim that "[t]he sense of incom-

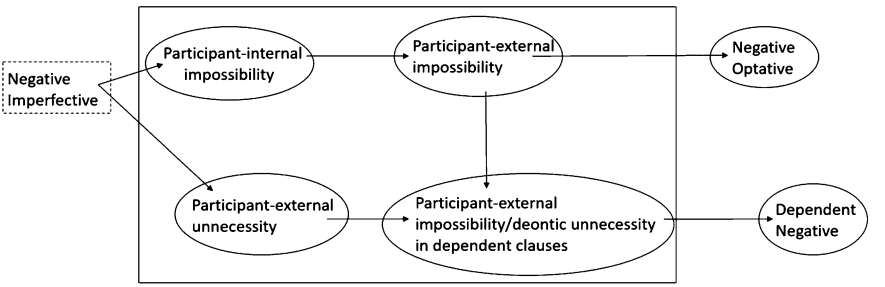

Figure 2: Diachronic semantic map of the Beja Optative negative.

pleteness is bound to be strongest for the premodal domain" (van der Auwera and Plungian 1998: 91).[16]

5 Conclusion

What I tried to show with this case study is that diachronic semantic maps are not only useful from a crosslinguistic perspective, but also for language internal studies, in particular because they help understand the semantic shifts that occurred in the grammar of unwritten languages with no recorded history, as is the case for Beja. On one hand, the post-modal Beja Optative negative is an additional proof of the validity of van der Auwera and Plungian's (1998) model for the evolution of modal meanings, showing, in synchrony, the full array of semantic features and the directionality they brought out from their language sample. On the other hand, the verb system of Beja keeps enough morphosyntactic traces of a former system to allow the reconstruction of a former value of the verb form, i. e. the pre-modal stage of the evolution.

Abbreviations

Abbreviations follow the Leipzig Glossing Rules. In addition, the following abbreviations are used: < ... > codeswitching to Arabic; AOR aorist; C consonant; COORD

16 The editors of this special issue, Stéphane Polis and Athanasios Georgakopoulos, drew my attention to the fact that "the negative imperfective is also the way to express participant-internal/external impossibility in Egyptian (*n sḏm-n=f* NEG hear-IPFV=3SG.M 'he does not hear' or 'he cannot hear')". Even if not mentioned in Kuteva et al. (2019), it may be the case that this source is not rare crosslinguistically, but further research is needed outside the Afroasiatic phylum.

coordination; DER derivation; DES desiderative; DIR directional; INT intensive; IRG irregular; MID middle voice; MNR manner; N.AGN agent noun; OPT optative.

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