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MOOD AND MODALITY IN BEJA

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1. Introduction

Beja, the sole language of the North Cushitic branch of Afroasiatic[1], has developed, in addition to a morphological marking of several moods, two intriguing and crosslinguistically unfrequent, formal means for the expression of modality: (i) the cliticization of a nominal copula to finite verb forms, and (ii) the cliticization of a special set of bound object pronouns to finite verb forms. Although the basic facts about these two constructions have been known for almost a century (Roper 1928), so far it has not attracted the attention of typologists or Africanists.

After an overview of the verbal morphology in section 2 necessary for the understanding of the whole verbal system, section 3 examines the morphology and semantics of the irrealis mood paradigms, section 4 the bound object pronoun encoding strategy, and section 5 the copula encoding strategy and its developments. As a final comment, section 6 discusses possible evolutions of the two modal constructions.

2. A brief overview of the verbal morphology

Beja, like four other Cushitic languages, Saho, Afar, Somali and South-Agaw, has two morphological verb classes.

Verb class 1 (V1), historically the oldest one, is conjugated with prefixes (which become infixed for disyllabic verbs in the singular), and, similarly to Arabic, the stem undergoes ablaut, according to TAM. Beja is by far the Cushitic language where this verb type is the most frequent (56% according to Cohen (1988)[2] as against e.g. four verbs in Somali).

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[1] The language is mainly spoken in Eastern Sudan, where I have been collecting data since 2000, by some 1,100,000 speakers, in Northern Eritrea by a few thousands speakers, and in Southern Egypt where it is almost extinct, if not extinct.

[2] Cohen's count is based on Roper's (1928) lexicon of Sudanese varieties. For the Eritrean variety, Wedekind (2002) give a lower figure, 45%.

Verb class 2 (V2), the innovative paradigm which spread all over Cushitic, is conjugated with suffixes, which etymologically go back to a verb *n meaning 'say; be', itself conjugated with prefixes (Cohen 1973). The stem is invariable for all TAM and corresponds to the root without the inflectional morphemes.

Verb class assignment is synchronically arbitrary, but most CVC and CVCVC stems are conjugated with prefixes, the others with suffixes (cf. Cohen 1988: 276).

The inflection system indexes partly on portmanteau morphemes person (1st, 2nd and 3rd), gender (F and M in 2SG and 3SG only), number (SG and PL), and TAM. There are (i) four basic finite affirmative indicative forms with aspectual distinctions: Perfective, Imperfective, Aorist, Perfect, the latter being of verbo-nominal origin; (ii) five imperative paradigms, Imperative, Emphatic Imperative, Prohibitive, affirmative Optative, negative Optative; (iii) four non-finite verb forms: the Simultaneity, Anteriority, Causal and Manner converbs; (iv) and a series of periphrastic constructions with 10 auxiliaries expressing various TAM (for details see Vanhove 2012b: 33-36), among them the Future tense formed with an auxiliary verb *di* 'say'. In addition, Beja has a set of 5 to 7 (for V2 and V1 respectively) derived forms expressing various semantic and voice properties: Pluractional (divided into an Intensive and a Frequentative form for V1), Passive, Reflexive (merged in one Passive-Reflexive form for V2), Causative, Double Causative, Reciprocal.

The inflectional morphemes of the three main Indicative paradigms at the base form are given in Table 1 below for V1 monosyllabic verbs and V2 verbs.

	Indicative					
	IPFV		PFV		AOR	
V1	SG	PL	SG	PL	SG	PL
1 2M F 3M 3F	*an-ˈCiːC* *ˈtin-CiːC-a* *ˈtin-CiːC-i* *in-ˈCiːC* *tin-ˈCiːC*	*neː-ˈCiC* *ˈteː-CiC-na* *ˈeː-CiC-na*	*a-ˈCiC* *ˈti-CiC-a* *ˈti-CiC-i* *i-ˈCiC* *ti-ˈCiC*	*n(ii)-ˈC C* *ˈti-CiC-na* *ˈi-CiC-na*	*iː-ˈCiC* *ˈtiː-CiC-a* *ˈtiː-CiC-i* *iː-ˈCiC* *tiː-ˈCiC*	*niː-ˈCiC* *ˈtiː-CiC-na* *ˈiː-CiC-na*
V2						
1 2M 2F 3M 3F	*-ˈani* *-ˈtnija* *-ˈtiniː* *-ˈiːni* *-ˈtini*	*-nej/-naj* *-teːn(a)* *-eːn(a)*	*-ˈan* *-ta(n)* *-taj /-tan* *-ja(n)* *-ta(n)*	*-na(n)* *-taːna* *-ˈijaːn*	*-i* *-tija* *-tiː* *-i* *-ti*	*-ni* *-tiːn(a)* *-iːn(a)*

Table 1: Indicative paradigms at the base form

NB: The variants with a final *(n)* occur before the conjunctive enclitics =*hoːb* 'when', =*eːk* 'if', and the relative markers =*eː(b/t)*; those with a final *(a)* are morphophonetic variants.

Table 2 below provides the paradigm of disyllabic V1 verbs. At the base form, this verb type inserts the IPFV marker -*an*- after the first consonant of the stem in the singular: -*C1anC2iːC3*-.

| V1 | Indicative | | | | | |
| | IPFV | | PFV | | AOR | |
	SG	PL	SG	PL	SG	PL
1	*a-ˈCanCiːC*	*neː-CaˈCiC*	*a-ˈCCiC*	*neː-CaˈCiC*	*iː-ˈCCiC*	*niː-ˈCCiC*
2M	*ˈCanCiːC-a*		*ˈti-CCiC-a*		*ˈtiː-CCiC-a*	
2F	*ˈCanCiːC-i*	*teː-ˈCaCiC-na*	*ˈti-CCiC-i*	*teː-ˈCaCiC-na*	*ˈtiː-CCiC-i*	*ˈtiː-CCiC-na*
3M	*CanˈCiːC*		*i-ˈCCiC*		*iː-ˈCCiC*	
3F	*CanˈCiːC*	*eː-ˈCaCiC-na*	*ti-ˈCCiC*	*eː-ˈCaCiC-na*	*tiː-ˈCCiC*	*ˈiː-CCiC-na*

Table 2: Indicative paradigms of disyllabic V1 at the base form

NB: The prefixed 1SG index *a-* is usually elided before initial laryngeals.

There is in addition a number of irregular (usually mono-consonantal) V1 and V2 verbs which do not fully comply with these paradigms, and a small sub-class of bi-consonantal and tri-consonantal V1 verbs which do not have the Imperfective *n* prefix or infix. They are characterized by a post-stem suffix -*i*. This sub-class includes most verbs whose stem pattern is C1i(C2)o:C3 or C1iC2e:C3, e.g. *a-foːr-i* 'I flee', *a-ʃiboːb-i* 'I am good', *a-hibeːb-i* 'I spend the rainy season', and some verbs (mainly stative) which contain a vowel *a(ː)* (in second position for disyllabic verbs), e.g. *hadal* 'be black', *haragʷ* 'be hungry', *ʃikʷan* 'smell nice', *nhad* 'finish', *bʔaːn* 'fear', *kʷaːs* 'create', *war* 'do', *bar* 'have'.

The inflectional morphemes of V1 derived verbs differ slightly from those of the base form in tables 1 and 2 above. The *n* prefix or infix of the Imperfective singular is not used with any of them; the Imperfective prefixes of V1 Intensive, Frequentative and monosyllabic Reflexive contain an -*eː*- in both singular and plural; other derived forms of V1 have -*i*- in both singular and plural; most derived forms also have ablaut patterns in the stem; and Reflexive verbs insert an infix -*t*- (a frequent Reflexive morpheme in Afroasiatic languages) between the inflectional prefixes and the stem in the Imperfective and the Aorist.

The Perfect is based on the Manner converb, which is formed with a suffix *-a* added to the verb stem for both verb classes. It agrees in gender with the subject, marked by the enclitic indefinite articles (masculine *=b*, feminine *=t*), followed by the enclitic copula, whose paradigm is given in table 3 below:

	SG	PL
1 & 3	*=(j)i / =(j)u*	*=(j)a*
2	*=wa*	*=(j)aːna*

Table 3: Paradigm of the copula

NB: The 1 & 3SG *=(j)i / =(j)u* are dialectal variants (which for certain speakers have become free variants).

Below are two examples of the Perfect in an independent clause (1) and an interrogative clause (2):

1.   *t=ʔabaː=t=ib*   *kirif-aː=b=u*
     DEF.F=valley=F=LOC.SG   meet-CVB.MNR=INDF.M.ACC=COP.1SG
     'I met them in the valley' (and they are still there) (BEJ_MV_NARR_03_camel_094)[3]

2.   *kak*   *jʔ-aː=b=wa*
     how   come-CVB.MNR=INDF.M.ACC=COP.2SG.M
     How have you come? (BEJ_MV_NARR_01_shelter_147)

In embedded clauses, the Manner converb is followed by the auxiliary verb *ak* 'be' instead of the enclitic copula. (3) is an example in a relative clause:

3.   *w=handi*   *wi=whi*   *mir-aː=b*
     DEF.SG.M=tree   REL.M=under find-CVB.MNR=INDF.M.ACC
     iː-kti=jeːb   *rhi-is-i=hoːb*
     AOR.3SG.M-be=REL.M   see-CAUS-AOR.3SG.M=when
     'When he showed him the tree under which he had found it…'
     (BEJ_MV_NARR_02_farmer_053-055)

Unlike many Cushitic languages, Beja has no dedicated negative paradimgs, but uses instead proclitic particles in combination with part of the Indicative tenses and periphrastic constructions.

The *negative Imperfective* is made with a negative proclitic particle *ka=/ki=* (1SG / other persons; only *ka=* for all persons before initial *h*), followed by the *Perfective*[4] finite verb form.

The *negative Perfective* is a complex form. The core verb is the Manner converb with a suffix *-a*, which agrees in gender with the subject (marked by the indefinite article

M = *b*, F = *t*), followed by the negative proclitic particle *ka=/ki=*, and an auxiliary, the verb *ak* 'be' conjugated in the *Imperfective*: *rha-a=b ꞌka=a-ki* 'I did not see'.

In addition to these asymmetries, the Aorist has no specific negative form and shares it with the negative Perfective.

3. Irrealis mood paradigms

3.1. Canonical imperatives

Beja imperatives have not grammaticalized aspectual or time distinctions. Canonical imperatives can only be used in independent or coordinated clauses.

3.1.1. Imperative

The inflectional morphemes of the most common "canonical" imperative, i.e. addressee-oriented imperative (cf. Aikhenvald 2012), are suffixed to an invariable stem whatever the verb class. The inflectional morphemes differ slightly for V1 and V2 in the plural: V1 *-na*, V2 *-aːna*. Like the indicative paradigms, the imperative differentiates gender only in the singular: *-a* (M), *-i* (F). When the subject, i.e. the addressee, that commands the gender and number of the imperative, is overtly expressed, it takes the vocative case, not the nominative as in declarative or interrogative utterances. The use of an overt subject makes the command more forceful, as in (5).

4.   *oː=jhaːm   deːr-a*
        DEF.SG.M.ACC=leopard   kill-IMP.SG.M
        'Kill the leopard!' (BEJ_MV_NARR_15_leopard_072)

5.   *liːgam-anaː=t-i   liːgam-i*
        look_over\DIM-N.AGN=INDF.F-VOC   look_over\DIM-IMP.SG.F
        'Overlooker, overlook!' (BEJ_MV_NARR_12_witch_090)

6.   *i=rezg=oːk   hariw-na*
        DEF.M=job=POSS.2SG.ACC   seek-IMP.PL
        'Look for your livelihood!' (BEJ_MV_NARR_18_Adam_devil_066)

7.   *u=mbʔeː   ḏʔam-aːna*
        DEF.SG.M.NOM=day   hide\REFL-IMP.PL
        'Hide during the day!' (BEJ_MV_NARR_18_Adam_devil_068-070)

Although uncommon in spontaneous utterances,[5] all derived forms can also be used in the imperative, including Passive and Reflexive forms, as well as stative verbs and verbs with non-volitional meaning referring to uncontrolled events: *atómāna (atoː-maːn-a)* 'be shaved! (Roper 1928: 72), *yā́ya (jaːj-a)* 'die!' (Roper 1928: 78).

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[5] Not a single example was found in a sample of 3 hours of narrative texts (which include a lot of dialogues and commands).

3.1.2. Emphatic imperative

The data I collected in Sinkat (Sudan) revealed the existence of a second imperative paradigm unrecorded so far: a suffix *-n* is added to all the imperative inflectional morphemes, i.e. there is no morphological loss as compared with the more 'neutral' imperative: gender and number distinctions are kept, contrary to a strong cross-linguistic tendency towards a reduction of grammatical categories in emphatic imperatives (Aikhenvald 2012: 125).

As e.g. the emphatic imperative in *-tte* in Haro (Woldemariam 2003: 152-3), the Beja emphatic imperative is used for pragmatic reasons in order to strengthen the illocutionary force of the command or the urgency with which it should be fulfilled. It often brings overtones of threat, scolding or anger (8, 9) towards the addressee,[6] would the command not be (immediately) accomplished, or an overtone of warning, signalling a danger if the desired action is not undertaken (10).

8. *ʔamuːl = ib*   *iː-fi-iːn = t*   *jʔa*
    milk_bowl = LOC.SG   AOR.3-be_there-PL = COORD   milk
    sallam-ta = ajt = heːb   *ʔabk-a-n*   *tiːj = oː = hoːb*
    give-PFV.3SG.F = CSL = OBJ.1SG   take-IMP.SG.M-EMPH   say\PFV.3SG.F = OBJ.1SG = when
    'Since she had given me a milk bowl, when she told me: Take it! ...' (you'd better take it quickly!) (BEJ_MV_NARR_01_shelter_129)

9. *t = ʔoːr-ej*   *oː = meːk*   *fidin-i*
    DEF.F = child-VOC   DEF.SG.M.ACC = donkey   move_away-IMP.SG.F
    galeːl-i = n
    chase_away-IMP.SG.F = EMPH
    'Girl! Chase the donkey away!' (chase it right now, it annoys me!)
    (BEJ_MV_NARR_03_camel_020-021)

10. *bak*   *ʔabk-i-n*   *w = hi*
    thus   take-IMP.SG.F-EMPH   DEF.SG.M = lamb
    'Take the lamb like that!' (or it will escape) (BEJ_MV_NARR_01_shelter_044-046)

3.1.3. Prohibitive

Morphologically, the prohibitive only encodes one degree of strength. It involves a dedicated negator: a variable proclitic particle, different from the Indicative negative particle, *baː =* (SG.M & PL) */ biː =* (SG.F), precedes the verb stem for both verb classes. The prohibitive paradigm also partially differs from the imperative. For V1 verbs, the prohibitive stems are different from the imperative ones, Ci:C and CaCi:C[7], the same stems as the negative Simultaneity converb.[8] This is partly reminiscent of the prohibitive formation in Warlpiri with a privative case marker on

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[6] For a cross-linguistic analysis of illocutionary force in connection with imperatives, see Aikhenvald 2012: 203-212).

[7] The so-called bound forms in Hudson (1976: 116) and Appleyard (2007: 470, 471, 475).

[8] And the negative Optative (see below 3.4.2). The (uninflected) Simultaneity converb combined with the prohibitive particle forms a privative clause (meaning 'without').

the nominalized verb form (and an auxiliary meaning 'leave') (Laughren 2002: 115-16, in Aikhenvald 2012: 172). The Beja prohibitive construction may have originated along similar lines, as converbs have both nominal and verbal features. Another difference with the imperative is the feminine morpheme of V2 verbs which is *-ej* instead of *-i*. The other inflectional morphemes are those of the Imperative.

11a. *baː-giːg-a*
    NEG.PROH-leave-IMP.SG.M
    'Don't go away!'

11b. *biː-tam-ej*
    NEG.PROH-eat-IMP.SG.F
    'Don't eat!'

12. *dhaːj-i=da*   *baː=hadiːd-aːna*
    people-GEN.SG=DIR   NEG.PROH=talk-IMP.PL   .
    'Don't tell the people!' (BEJ_MV_NARR_02_farmer_073)

3.4. Non-canonical imperative

The non-canonical imperative encompasses two paradigms, which cover all three persons, setting them apart from the canonical imperative paradigms. The affirmative non-canonical imperative, as the canonical ones, can only be used in independent and coordinated clauses, while the negative form can also be used in relative and complement clauses as well as in the apodosis of conditional clauses.

3.4.1. Affirmative Optative

The affirmative Optative paradigm, which is not very frequent in my data, is derived from the Aorist paradigms for both verb classes, preceded by an invariable Optative particle *baː=* [9] (homophonous with the above mentioned SG.M & PL Prohibitive particle). This Optative fully inflects for person, number and gender, thus functioning also as a Hortative with 1st persons, with an inclusive reading in the plural, and as a Jussive/Injunctive with 3rd persons. This paradigm complies with the cross-linguistic observation that non-canonical imperatives are always more formally marked than addressee-oriented ones (Aikhenvald, 2012: 75). For 2nd persons, the Optative expresses a wish or a threat to the addressee would he/she carry out the action expressed by the verb as in (14) below. Historically, the Beja Optative seems to have developed along a line similar to Indo-European languages, i.e. from a Perfective to an Optative, the Aorist form being the former Perfective paradigm (see Cohen 1972).

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[9] Reinisch (1893: 187), describing Northern Beja, gives this particle for 3rd persons only. 1st and 2nd persons are identical to what he calls Futurum I (which is in fact the Potential, an irrealis verb paradigm, see below section 3.5.1). Because of the absence of other sources on the Northern variety of Beja, it is impossible to decide whether this difference is due to a diachronic evolution, a dialectal difference or an incorrect analysis.

13. *hɛnén*　　*bǻnīdwilhokna*[10]
　　hinin　　*baː=niː-dwil=hoːkna*
　　1PL.NOM　OPT=1PL-approach\AOR=OBJ.2PL
　　'Let us approach you' (Roper 1928: 67)

14. *barǔk*　*bǻtamtiheb!*
　　baruːk　*baː=tam-ti=heːb*
　　2SG.M　OPT=eat-AOR.2SG.M=OBJ.1SG
　　'Just you bite me!' (Roper 1928: 51)

15. *jiːn-aː=t*　　*geːb=oːn*　　　　*baː=iː-sani*
　　day-PL=F　near=POSS.1PL.ACC　OPT=3SG.M-stay\AOR
　　'Let him stay with us a couple of days!' (Poor and shopkeeper, Ahmed, 2005)[11]

3.4.2. Negative Optative

The negative Optative, a rather frequent paradigm in my data, is formed by adding a proclitic particle *bi=* (*ba=* in the 1SG because of vowel harmony) to the verb stem, which is different from its affirmative counterpart for V1: the stem is the same as the negative Simultaneity converb and the Prohibitive stems (see above 3.1.3.), Ci:C and CaCi:C.[12] *Both verb classes* are in addition conjugated with *prefixes*; a set of suffixes is added to all V2, and to monosyllabic V1 only. The inflection is detailed in table 4 below (the variation in the V2 suffixes is dialectal):

	SG	V1mono	V2	PL	V1mono	V2
1	*ba=a*-stem		*-aːj / -ej*	*bi=n*-stem		*-aːj / ej*
2M	*bi=t*-stem	*-a*	*-aːja / -ej*	*bi=t*-stem	*-na*	*-eːna*
2F	*bi=t*-stem	*-i*	*-aːj / -ej*			
3M	*bi=i*-stem		*-aːj / -ej*	*bi=i*-stem	*-na*	*-eːna*
3F	*bi=t*-stem		*-aːj / -ej*			

Table 4: Paradigm of the Optative Negative

NB: The V2 singular suffixes change to *-a* before the enclitic pronouns, and the plural final vowel of V2 is elided as well as before the enclitic conjunction *=eːk* 'if'.

In independent or main clauses, the negative Optative has the same functions as its corresponding Positive form, i.e. optative, hortative and jussive/injunctive:

16. *harʔiː=isi*　　　*bi=t-jʔ-a=heːb=aj*
　　after=1SG.ABL　　NEG.OPT=3SG.F-come-OPT=OBJ.1SG=FOC
　　'Let it not come from behind me!' (BEJ_MV_NARR_05_eritrea_328)

Furthermore, in relative and complement clauses, the negative Optative paradigm is in complementary distribution with the indicative negative paradigms which cannot

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[10] Examples taken from Roper (1928) are first given in the original transcription, followed by an IPA transcription, showing morpheme breaks.
[11] The examples with this type of reference are taken from my own unpublished data.
[12] Remember that there is no ablaut with the V2 verb class, whose stem is invariable.

be used in this syntactic context. The negative Optative loses its optative, hortative and jussive/injunctive semantics, and most often brings instead other epistemic modal values of near-uncertainty, uneventuality or improbability (see Vanhove 2011)[13], as in (18) and (19):

17. *oː=kina   hoːj   bi=i-bar-iːn=eː=na*
     DEF.SG.M.ACC=owner[14] 3ABL   NEG.OPT=3-have\OPT-PL=REL=thing[15]
     ki=t-haːj
     NEG.IPFV=3SG.F-be_there\PFV
     'There was really nothing that they did not have in it.' (BEJ_MV_NARR_02_farmer_323)

18. *ɖaːb-i   bi=i-diː=jeːb   hiːs-an*
     run-FUT   NEG.OPT=3SG.M-say\OPT=REL.M think-PFV.1SG
     'I thought he would not be able to run.' (BEJ_MV_NARR_03_camel_152)

19. *oːn   ba=a-gadab-s-aːj=oːkna   ʃibib-na*
     PROX.MSG.ACC   NEG.OPT=1SG-be_sad-CAUS-OPT=OBJ.2PL   look-IMP.PL
     'Beware that I would make you unhappy!' (Seven orphans and cow, Asha, 2006)

The negative Optative paradigm is also compulsory in the protasis of conditional clauses. This is in line with the cross-linguistically frequent use of imperatives in this context (Aikhenvald 2012: 235-38). In Beja, it brings in addition a deontic value of incapacity:

20. *naː=t   hoːk   bi=i-dʔiː-na=jeːk*
     thing=INDF.F.ACC 2SG.DAT NEG.OPT=3-do\OPT-PL=if
     alla=joː=da   gʷiri-am-ni   ni-jad
     God=1SG.GEN=DIR complain-REFL.PASS-FUT.PL   1PL-say\IPFV
     'If they cannot do anything to you, we are going to complain to my God'
     (BEJ_MV_NARR_08_drunkard_068-070)

3.5. Potential

3.5.1. Affirmative Potential

The Potential paradigm is periphrastic: the irregular auxiliary verb *jʔ* 'come', conjugated in the Imperfective, follows the core verb, which has the form of an invariable verbal noun characterized by a suffix *-at* (*-it* with verbs ending in *-i*), a form found exclusively with (some) auxiliary verbs. This paradigm presents various degrees of grammaticalization: (i) it is formally reduced and grammaticalized to an inflectional morpheme in 2SG and 2PL, (ii) it is usually omitted in 1SG, and (iii) it only occurs as a full-fledged inflected auxiliary in 3SG and 1PL & 3PL. Table 5 below gives the full paradigm for the verb *tam* 'eat':

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[13] But not in any other adverbial clause type.
[14] This is the still semantically transparent strategy used in Beja for the expression of reflexive pronouns, which also function as focus particles as in this example.
[15] The dummy noun *na* 'thing' may cliticize to the relative enclitic markers to reinforce them. For further details, see Vanhove (2012b: 56-64).

	SG	PL
1	*tam-at (eːni)*	*tam-at eːnej*
2M	*tam-at-a*	
2F	*tam-at-i*	*tam-at-na*
3M	*tam-at eːjni*	
3F	*tam-at eːtni*	*tam-at eːn*

Table 5: Paradigm of the Potential

This paradigm corresponds to an irrealis mood. According to Roper (1928: 83)[16], the Potential is typically used in questions, or "in reply to a question framed in the same mood", where, judging by his translations, it expresses deontic modalities of volition and capacity:

21a. - *šagāmáta*
        ʃagaːm-at-a
        work-VN-POT.2SG.M
      'Do you want to work? Are you willing to work?'
21b. - *šagāmat   éni*
        ʃagaːm-at   eːni
        work-VN   POT.1SG
      'I want to work' / 'I can work' (Roper 1928: 83)

The Potential expresses also epistemic modalities, the most common one being that of inference (22), as well as the deontic modality of ineluctability, with an overtone of threat as in (23), or obligation as in (24):

22.   *dijar-an＝eːk   ka＝a-kan   dabal＝had*
      be_tired-PFV.1SG＝if   NEG.IPFV＝1SG-know\REFL.PFV   small＝until
      fiːn-at＝aj
      rest-POT.[1SG]＝CSL
      'I am really exhausted (lit. I don't know if I was tired), so I should rest for a while'
      (BEJ_MV_NARR_18_Adam_devil_165-168)

23.   *hinin   rhi-is-at＝oːk   eːnej*
      1PL.NOM   see-CAUS-VN＝2SG.ACC   POT.1PL
      'We are going to show you!' (BEJ_MV_NARR_03_camel_183)

24.   *ʃirfi＝t   ṭʔ-anaː＝b＝i   oːn＝ani*
      gamble＝INDF.F   strike-N.AGN＝INDF.M.ACC＝COP.3SG PROX. SG.M.ACC＝1SG.NOM
      tuːb-at   i-di
      repent-POT.[1SG]   3SG.M-say\PFV
      'He was a gambler. He said: I should repent!' (Gambler, Ahmed, 2006)

3.5.2. Negative Potential

The negative form of the Potential is built with the same verbo-nominal form as the affirmative Potential, and is followed by the negative Imperfective of the auxiliary

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[16] Reinisch (1893: 185) analyzes this form as one of the Future tenses. Although not the canonical Future tense (formed with the verb *di* 'say'), this analysis is in line with its irrealis status.

verb *are:* 'wish, want'.[17] Not a single instance of this construction was found in my data, and the sole examples found so far in Roper's grammar book (1928) express a deontic value of incapacity:

25a. - *tontonātón*   *gāl dor   kwit'áta?*
      - *to:n*   *to:=na:=t=o:n*   *ga:l do:r   kʷitʔ-at-a*
      PROX.SG.F.ACC DEF.SG.F.ACC=thing=INDF.F=POSS.1PL   one time   swallow-VN-POT.2SG.M
      'Can you swallow this at a single gulp?'
25b. - *kwit'át káran*
      - *kʷitʔ-at*   *ka=r-an*
      swallow-VN   NEG.IPFV=wish-PFV.1SG
      'no, I cannot' (Roper 1928: 83)

4. Modality and enclitic object pronouns

Before going into the details of the modalities expressed by the use of object enclitic pronouns, a few words about the morphology of these pronouns are needed. The bound object pronouns are overtly expressed for 1st and 2nd persons only[18]. There is no gender distinction, but in the singular a suffix is optionally added to encode the sex of the addressee (*-a* for masculine, *-i* for feminine). The form of the bound pronouns varies with TAM. Table 6 below provides the list of the bound object pronouns.

	After IPFV & PFV		After AOR	
	SG	PL	SG	PL
1	=*he:b*	=*ho:n*	=*(j)i*	=*(j)u:n*
2	=*ho:k*	=ˈ*ho:kna*	=*(j)u:k*	=ˈ*(j)u:kna*

Table 6: Clitic object pronouns

NB: The set of bound object pronouns after the Aorist have the same form as the *nominative possessive* bound pronouns.

It is known since Roper (1928: 29), that the bound pronouns used with the Aorist express a hypothesis or a doubt.[19] When object pronouns are overtly expressed in their enclitic form in a conditional clause, they cannot cooccur with the conditional enclitic particle =*e:k* 'if', which is dropped (Roper 1928: 45, 50). In this context, the

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[17] Reinisch (1893: 185) wrongly analyses the negative Potential as being formed with the auxiliary verb *rib* 'refuse'. The construction expresses in fact a contrastive negation (cf. Vanhove & Hamid Ahmed 2004).

[18] Beja also has a set of independent object pronouns for all three persons.

[19] "The objective suffixes to the conditional [= Aorist] of the verb […], and to the verb when the meaning or intention is dubious, are …" (Roper 1928: 29). Reinisch (1893: 109, n. 2) does not give a special paradigm and only notes that "Statt *-hēb* findet sich auch das nominalsuffix *-ū*" (instead of *-hēb* we also find the nominal suffix *-ū*, my translation). The translation of the example he provides does not show any modal value.

clause with the enclitic Aorist object pronoun is the protasis of the conditional clause.

26. barū́   barók   tamiū́k   kăk   sáktīa ?
    baruː   baroːk   tam-i=juːk   kak   sak-tija
    3SG.M.NOM 2SG.M.ACC eat-AOR.3SG.M=OBJ.2SG how do-AOR.2SG.M
    'Had he bitten you what would you have done?' (Roper 1928: 30)

27. imhalaga͡iyɛ́k   ahɛyū́k,   ámse yi'át
    i-mhalaga-jeːk   a-he=juːk   amsi jʔ-at
    DEF.M-money=POSS.2PL.ACC   1SG-give\AOR=OBJ.2SG today come-VN
    tíriba
    ti-rib-a
    2-refuse\PFV-SG
    'Had I given you your money you would not have come to-day' (Roper 1928: 30)

28. áne   barók   tamiū́k   kăk   sáktīa?
    ani   baroːk   tam-i-juːk   kak   sak-tija
    1SG.NOM 2SG.M.ACC eat-AOR.1SG=OBJ.2SG how do-IPFV.2SG.M
    'If I bit you, what would you do?' (Roper 1928: 50)

29. w=ha'waːd   jʔ-i=juːk
    DEF.SG.M=night come-AOR.3SG.M=OBJ.2SG
    'If night falls upon you…' (BEJ_MV_NARR_05_eritrea_110)

Bound Aorist object pronouns are also used with the indicative Imperfective and Perfective paradigms in the protasis of conditional clauses, a frequent construction in my data:

30. aː=jas   j-ʔaʃiʃ-n=uːk   ʃiːʃik
    DEF.PL.M.NOM=dog\PL   3M-face_each_other\PFV-PL=OBJ.2SG thorn
    fif-a   heː-ja   j=ʔar   i=dabaloː-ja
    pour-IMP.SG.M be-IMP.SG.M   DEF.M=child\PL   DEF.M=small-PL
    i-ʔaʃiʃ-n=uːk   halaːwaː=t   fif-a
    3M-face_each_other\PFV-PL=OBJ.2SG   sweet\PL=INDF.F pour-IMP.SG.M
    heː-ja   t=hadʔa   j-ʔaʃiʃ-n=uːk
    be-IMP.SG.M   DEF.F=elder   3M-face_each_other\PFV-PL=OBJ.2SG
    soːtʔaːl-a=t   fif-a   heː-ja
    blue_pearl-PL=INDF.F   pour-IMP.SG.M   be-IMP.SG.M
    'If you meet the dogs, pour thorns to them! If you meet the small children, pour sweets to them! If you meet the old women, pour blue pearls!' (lit. if the dogs face you, etc.) (BEJ_MV_NARR_12_witch_107-112)

31. ni-garb=uːk   ʃambhaneː=b=wa
    1PL-win\REFL.PFV=OBJ.2SG   eyebrow=INDF.M=COORD
    oːn   i=ʃanab=oːk=wa   hoːk   ni-jaːj
    DEM.MSG.ACC   DEF.M=moustache=POSS.2SG.ACC=COORD   2SG.DAT FUT.1PL-take
    ni-jad
    1PL-say\IPFV
    'If we defeat you we'll shave off your moustache and eyebrows' (Gambler and marriage, Saddik, 2006)

With ditransitive and motion verbs, a recipient marker $=e{:}t$[20] is inserted between the verb form and the Aorist object pronoun:

32.
e:n	*e:-ʃʔa*	*u:n*	*u: = bo:j*
PROX.PL.M.ACC	DEF.PL.M.ACC-cow\PL	PROX.SG.M.NOM	DEF.SG.M.NOM = blood

dha:j   e:-fi = je: = na = ka   *ti-jaw-n = e:t = i*
DIR   3MSG-be_there\IPFV = REL = thing = DISTR   2-give\IPFV-PL = RCPT = OBJ.1SG
i = gu:g = i   *diw-i:ni*   *i:-di*
DEF.M = mood = POSS.1SG.NOM   sleep-IPFV.3SG.M   AOR.3SG.M-say
'He said: if you give me all the cows that have blood on them, I'll keep quite.' (Dead mother and cow, Asha, 2005)

33.
tu:t   *tu: = na*   *ti = baʃar = i*
PROX.SG.F.NOM   DEF.SG.F.NOM = thing   DEF.F = body = POSS.1SG.ACC
i-miri = je:t   *to: = kina*   *e:ti = je:t = i*   *han*
3SG.M-find\PFV = REL.F   DEF.SG.F.ACC = owner   come\AOR.3SG.F = RCPT = OBJ.1SG also
'Even if this thing that my body felt came to me' (BEJ_MV_NARR_05_ERITREA_324-327)

The Aorist bound pronouns are also used with the Imperfective paradigm and the affirmative and negative Optative paradigms outside the above conditional context, in declarative independent or relative clauses. In such cases, they encode epistemic modalities of inference (34), in line with the conditional reading of the construction, as well as a deontic modality of ineluctability (35, 36):

34.
waʤʤa: = b   *han   are: ti-kte:n = e:b*
appointment = INDF.M   also   then   2SG.M-know\REFL.IPFV = REL.M
ti-s-dali:w = e:b   *ti-niw = u:n*   *n-higit*
2SG.M-CAUS-approach\IPFV = REL.M   2SG.M-give\IPFV = OBJ.1PL   FUT.1PL-wait
ni-jad
1PL-say\IPFV
'Then you also know the meeting time. You should not make us wait. We'll wait for you' (BEJ_MV_NARR_03_camel_122-127)

35.
o:n   *ba: = dar-i = ju:kna*   *ʃibib-na*
PROX.SG.M.ACC   OPT = kill\INT-AOR.1SG = OBJ.2PL   look-IMP.PL
'Beware I would kill you!' (= I'm going to kill you, for sure) (Seven orphans and cow, Asha, 2005)

36.
o: = kʷan   *i = ba: = hass-aj = u:k*
DEF.SG.M.ACC = flood   REL.M = NEG.OPT = pass-OPT.3SG.M = OBJ.2SG
i-sanni = ho:k-a
3SG.M-wait\IPFV = OBJ.2SG-ADRF.M
'May you find the flooding river that would prevent you from crossing!' (BEJ_MV_NARR_12_witch_133-134)

The Aorist bound pronouns can also be used in interrogative utterances with Perfective and Imperfective verb forms. In this context, they encode a deontic modality of capacity or possibility:

37.
kak   ni-wari = ju:k   *i = gu:g = u:k*   *diw-i:n = ho:k*
how   1PL-do\IPFV = OBJ.2SG   DEF.M = mood = POSS.2SG.NOM   sleep-IPFV.3SG.M = OBJ.2SG

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[20] This marker is homophonous with the feminine marker of relative clauses and the plural similative marker.

in-di=ho:b
3SG.M-say\IPFV=when
'When he told him: How can we manage so that you'll keep quite?' (Seven orphans and cow, Asha, 2005)

5. Finite and non finite verbs + nominal copula: deontic and focus

In his Beja grammar book, Roper (1928) mentions the possibility to add the enclitic nominal copula, the usual device to form verbless clauses, after the Imperfective (his 'present') and the Aorist (his 'conditional') verb forms in order to express a set of modal values. With the Imperfective, Roper (1928: 43) translates this compound verb form by 'ought to, can, could, might'. He provides two contextualized examples, which clearly have deontic modal values of obligation and advice, but not of capacity:

38. *barúk*   *émbi'*   *kissó*   *bāskītíwaĩyaĩt*   *tə'a*
    baru:k   *u:=mbʔe:*   *kass=o:*   *ba:ski:-ti=wa=jajt*   *tʔa*
    2SG.M.NOM DEF.SG.M.ACC-day all=POSS.3SG.M.ACC fast-N.AC=COP.2SG.M=CSL now
    tamíniwa
    tam-i:ni=wa
    eat-IPFV.2SG.M=COP.2SG.M[21]
    'Since you have fasted all day you ought to eat now' (Roper 1928: 44)

39. *únūtám*   *ləhéit*   *ɛtmīgɛi*
    u:n   *u:=tam*   *lhejt*   *e:-t-mi:gej*
    DEM.SG.M.NOM   DEF.SG.M.NOM=food tomorrow 3SG.M-REFL-go_bad\IPFV
    tamánībi
    tam-ani:=b=i
    eat-IPFV.1SG=INDF.M.ACC=COP.1SG
    'This food will go bad tomorrow so I ought to eat (it now)' (Roper 1928: 44)

With the Aorist, Roper (1928: 50) further specifies that the copula seems to be used only in conditional clauses, and judging by his two examples, in the apodosis. His translations clearly show deontic values of obligation and necessity, which are infered from the propositional content of the first clause:

40. *áne*   *osūk*   *akantīmék*
    ani   *o:=su:g*   *a-kanti:m=e:k*
    1SG.NOM DEF.SG.M.ACC=market 1SG-arrive\IPFV=if
    támībi
    tam-i:=b=i
    eat-AOR.3SG.M=INDF.M.ACC=COP.1SG
    'When I reach the market I must eat' (Roper 1928: 50)

41. *yam*   *temeriék*   *gw'íwa*
    jam   *ti-miri=je:k*   *gʷʔ-i:=wa*
    water 2SG.M-find\IPFV=if drink-AOR.2SG.M=COP.2SG

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[21] Roper (1928: 43) specifies that '[t]he first person singular has also *tamínībi, tamíniti.*' The =*b* and =*t* of the final *-bi* and *-ti* are the indefinite M and F articles, which add an extra nominalization device to the construction.

'If you find water you must drink it' (Roper 1928: 50)

Roper (1928: 39) mentions that this construction, with the same modal values, is found not only with finite verbs, but also with a non-finite verb form, the negative Simultaneity converb (his negative "present participle"). His translations hint to deontic modalities of capacity, obligation, advice and necessity ('that cannot, must not, ought not'):

42. *áne   geráb   hádīt   bātámɛi (-eyi)*
    ani   girab   hadiːt   baː=tam-eː=ji
    1SG.NOM evening until   NEG.PROH=eat-CVB.SMLT=COP.1SG
    'I do not (must not) eat until evening (lit. I until evening am-a-non-eater)' (Roper 1928: 39)

43. *barū́k   ləháwa͡iya͡it   bātámewa*
    baruːk   lha-a=wa=jajt   baː=tam-eː=wa
    2SG.NOM   be_ill-CVB.MNR=COP.2SG=CSL   NEG.PROH=eat-CVB.SMLT=COP.2SG
    'Since you are ill you-ought-not-to-eat' (Roper 1928: 39)

These examples are still understood with the same meaning by today's speakers of Beja, but they are felt as "out-of-date", and no occurrence of any of these modal values was found in the spontaneous data I have recorded so far, nor in the material I tried to elicit.

In today's speech, the combination of a finite verb form and the copula has a different meaning: it is one of the syntactic strategies used to encode information structure, namely the contrastive focus of an argument of the verb, denoting a constituent that identifies a subset within a larger set of alternatives. Copulas are crosslinguistically well-known devices for the expression of focus, particularly in African languages (see e.g., Heine & Reh 1984). Beja is thus one more example, but it is particular in that it does not recruit also for this purpose a cleft or a relative clause. At least if such constructions were involved at some point in the history of the language, their structure was different from what relative clauses[22] are today, and were in Roper's time.

44. *bess barijoːk   harwi=ju=it*
    only 2SG.M.GEN   want\PFV.[1SG]=COP.1SG=COORD
    'But it was from you that I wanted it, and...' (and from no one else) (Lion and Prophet, Zeinab, 2003)

45. *ani   a-dir=i   ti=dhaniːnaːj   i-ndi=jeːb=ka*
    1SG.NOM   1SG-kill\PFV=COP.1SG   DEF.SG.F=monster 3SG.M-say\IPFV=REL.M=DISTR
    'Every time (someone) says: I am the one who killed the monster' (Starry dress, Ahmed, 2002)

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[22] For an overview of relative and cleft clauses, see Roper (1928: 89-94) and Vanhove (2002b: 56-64).

46. *bara:*   *na:na:*   *ʤensi-i=t*   *mʔari*
     3PL.M.NOM   why   sort-GEN=INDF.F   food
     are:-je:n=ka:=b=a   *ti=mʔari=t=e:b*
     like-IPFV.3PL=CMPR=INDF.M.ACC=COP.3.PL[23]   DEF.F=food=INDF.F=LOC.PL
     'Them, what kind of food did they prefer among (all) the food?' (Erkowit, Yacine, 2002)

Example (47) is the sole instance in my data in which both the finite verb form and the focused argument are marked with the nominal copula.

47. *o:n*   *o:=me:k*   *w=ʔa:nkʷana*   *jo:=b*
     PROX.SG.M.ACC   DEF.SG.M.ACC=donkey   DEF.SG.M=owner   bull=INDF.M.ACC
     to:=mhi:n   *dha:j*   *jʔ-e:ti:t*   *su:r*   *w=ha:ʃ=o:*   *ha:j*
     DEF.SG.F.ACC=place   DIR   come-CVB.ANT   before   DEF.SG.M=earth=POSS.3SG.M   COM
     i:-frak=i   *me:k=u:=it*
     3SG.M-dig\INT.AOR=COP.3SG   donkey=COP.3SG=COORD
     'This donkey, the owner exchanged it for a bull, although before, it was with the donkey that he was ploughing his fields, and …' (Donkey, dog, cat and cock, Ahmed, 2003)

6. Discussion

From the preceding section, one question arises: What are the commonalities between focus construction and deontic modality? Is there a functional synchronic explanation to the polysemy of this construction involving a versatile category (i.e. the nominal enclitic copula also used with finite verbs), which in turn might explain a possible evolution between the two grammatical meanings, hypothetically from deontic modality to focus in Beja, because of diachronic considerations?

The use of similar or related constructions, usually involving nominalizations, copulas or cleft constructions, for the expression of focus and of deontic modality is not unknown crosslinguitically[24], but explanations differ depending on the language group and on linguists.

Eitan Grossman (p.c.) states that "In earlier Egyptian, there is a definite association between focus and deontic modality: they tend to meet in asseverative constructions, where focus is not on an argument but on the predicative link itself." He also mentions (Grossman, p.c.) that the polyfunctionality is attested in the Sahidic variety of Coptic (Afroasiatic) for the focus marker *e-/ ere-* which was grammaticalized for the expression of an Optative, via a Future tense construction, i.e. the reverse grammaticalization path than the one postulated above for Beja.

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[23] In this example, the comparative particle, which here agrees in gender and changes the meaning of the verb 'like' into 'prefer', is inserted between the verb and the copula.

[24] My deepest thanks are due to Denis Creissels, Eitan Grossman, Randy LaPolla, Stéphane Robert, Eva Schultze-Berndt, and Bernhardt Wälchli for providing insights into Coptic, Tibeto-Birman languages (Qiang in particular), Latvian, and Wolof, and for discussing with me possible synchronic and diachronic interpretations of this polyfunctionality, in answer to a query I posted on LinguistList.

Grossman (p.c.) further adds that this is "part of a general trend for earlier biclausal structures (clefts, mainly) to be grammaticalized into monoclausal focal constructions, and from there on, to other things".

The verb paradigms in Wolof (Atlantic, Niger-Congo) (Stéphane Robert p.c. and 1991: 266-268), offer yet another semantic and formal link between focus and deontic modality: deontic values are compatible with the so-called Emphatic conjugations, which encode the focusing of Subject, Object, and Verb, when an Imperfective morpheme is added.

Bernhard Wälchli (p.c., and 2000: 200-206) suggests that the Latvian (Baltic, Indo-European) debitive paradigm, historically related to a cleft construction and a copula, could be marginally relevant to this issue, again with a grammaticalization path opposite to the hypothetical one in Beja : "the debitive (necessitive modality, both deontic and epistemic) developed from a construction with copula in main clause and lexical verb in relative clause, something like 'To me(DAT) is water (of) what to drink'. The copula is still obligatory everywhere except in affirmative present where it is optional. The relative clause has fused to a synthetic form which cannot be analyzed synchronically. Focus is not morphologically expressed in Latvian, but it seems possible that the construction originally implied a focus on the object, since the verb has been backgrounded in the relative clause."

In Qiang (Tibeto-Burman) Randy LaPolla (p.c. and 2003: 190ff, 234-235) mentions a quite common pattern, similar to that of Beja, involving a copula and a verb form (usually nominalised, but finite verbs may also be used) for the expression of argument contrastive focus and deontic modality. The construction is not understood in Qiang and Tibeto-Burman languages "as a deontic construction becoming a focus construction, but as two different uses for nominalizations (among others)".

Eva Schutze-Berndt (p.c.) suggests the following, in line with LaPolla: "My guess (knowing nothing about Cushitic languages, so just based on your two examples) is that a cleft construction is here recruited for both functions, rather than one function being grammaticalised from the other. For argument focus that's unproblematic since cleft constructions are widely attested in that function." She further adds: "I know less about grammaticalisation paths for deontic modality but I could imagine that a structure "if X, it's that Y" could by implicature receive a deontic interpretation "… one must Y"." A similar suggestion was made by Denis

Creissels (p.c.), and examples (40, 41) show that the implicature context is attested in the Beja.

So, the syntactic link between focus and deontic (in particular necessity as in Latvian) is clear attested crosslinguistically, whatever the exact grammatical means. Nevertheless, in Beja, two factors seem to go against a grammaticalization from focus to deontic as attested in Coptic, supposed in Latvian (and possibly also in Wolof considering that the Emphatic paradigm is primarily a focus construction): (i) both the implicature and the deontic modality are attested diachronically *prior* to the focus function (even if shortly), (ii) the native speakers' feeling is that the deontic reading is "old fashioned". Does the case of Beja provide an argument in favour of a possible bidirectional grammaticalization? Or do we have to discard the grammaticalization process altogether and be happy with the synchronic analysis of a polyfunctional construction? No satisfactory answer can be provided in the present state of knowledge, and further research is needed which is beyond the scope of this paper.

Another unsolved question concerns the role of the special set of Aorist bound object pronouns (as described in section 4) in the expression of hypothesis, epistemic and deontic modalities. So far no crosslinguistic data reminiscent of the Beja construction has been found and it remains unclear how object pronouns contribute to the encoding of modalities. Cushitic and Afroasiatic comparison could help providing the beginning of an explanation, but the following is still highly tentative. As mentioned earlier, the Aorist object pronoun set is the same as the *nominative* possessive pronoun set, which hints to a possible nominal origin of the Aorist paradigm itself, the former Perfective (but, to the best of my knowledge, we have no proof of this yet). If it were the case, a parallel could be drawn with the well known grammaticalization scenario of possessive constructions into deontic necessity (e.g. van der Auwera & Plungian 1998). Still, if deontic modalities are indeed expressed with a pronominal set of possessive origin in Beja, there is no instance so far of a necessitive meaning of the construction, a stage that could explain further developments into other deontic and epistemic values. Such a diachronic scenario would make the Beja construction not so unique typologically.

Abbreviations

| ABL | Ablative | | ACC | Accusative |

ADRF	Form of Address	IPFV	Imperfective
AOR	Aorist	LOC	Locative
C	Consonant	M	Masculine
CAUS	Causative	N.AC	Action Noun
CMPR	Comparative	N.AGN	Agent Noun
COM	Comitative	NEG	Negative
COORD	Coordinative	NOM	Nominative
COP	Copula	NV	Verbal Noun
CSL	Causal	OBJ	Object
COORD	Coordinative	OPT	Optative
COP	Copula	PASS	Passive
CSL	Causal	PFV	Perfective
CVB.MNR	Manner converb	PL	Plural
CVB.SMLT	Simultaneity converb	POSS	Possessive
DAT	Dative	POT	Potential
DEF	Definite	PROH	Prohibitive
DIM	Diminutive	PROX	Proximal
DIR	Directional	RCPT	Recipient
DISTR	Distributive	REFL	Reflexive
EMPH	Emphatic	REL	Relator
F	Feminine	SG	Singular
FOC	Focus	TAM	Tense-Aspect-Mood
FUT	Future	V	Vowel
GEN	Genitive	V1	Class 1 Verb
IMP	Imperative	V2	Class 2 Verb
INDF	Indefinite	VN	Verbonominal
INT	Intensive	VOC	Vocative

References

Aikhenvald, Alexandra Y. 2012. *Imperatives and Commands*. Oxford : Oxford University Press.

Appleyard, David (2007). Beja morphology. In Kaye, Alan S. (ed.), *Morphologies of Asia and Africa*. Winona Lake (Indiana), Eisenbrauns: 447-480.

Cohen, David. 1972. La mutation aspectivo-temporelle dans quelques langues couchitiques et le système verbal chamito-sémitique. In Jacqueline Thomas & Lucien Bernot (eds), *Langues et Techniques, Nature et Société*. Paris, Klincksieck: 57-63.

Cohen, David. 1973. Le renouvellement de l'inaccompli en bédawiye. *Comptes Rendus du GLECS,* 1973, vol. 14, p. 69-78.

Cohen, David. 1988. Bédja. In Cohen, David (ed.). *Les Langues dans le Monde Ancien et Moderne. Langues chamito-sémitiques*. Paris, Editions du CNRS: 270-277.

Heine, Bernd & Mechthild Reh. 1984. *Grammaticalization and Realysis in African Languages*. Hamburg: Helmut Buske.

Hudson, Richard A. 1976. Beja. in Bender, Lionel (éd.), *The Non-Semitic Languages of Ethiopia*. East Lansing, Michigan: African Studies Center, Southern Illinois University, p. 97-132.

Laughren, Mary. 2002. Syntactic constraints in a "Free Word Order" language. In Amberber, Mengistu & Peter Collins (eds.), *Language universals and variations, London: Parger*: 83-130.

Reinisch, Leo. 1893. *Die Beḍauye-Sprache in Nordost-Afrika, vol I, II*. Wien: Sitzungs berichte der Kais. Akademie der Wissenschaften in Wien L, Band CXXVIII.

Robert, Stéphane. 1991: *Approche énonciative du système verbal. Le cas du wolof*. Paris: Editions du CNRS.

Roper, E.M. 1928. *Tu Beḍauye. An Elementary Handbook for the Use of Sudan Government Officials*. Hertford: Stephen Austin.

van der Auwera, Johan & Vladimir A. Plungian. 1998. Modality's semantic map. *Linguistic Typology* 2: 79-124.

Vanhove, Martine. 2011. Towards a semantic map of the Optative in Beja (North-Cushitic). *He bitaney lagge. Studies on Language and African Linguistics in Honour of Marcello Lamberti*. Busetto, Luca, R. Sottile, L. Tonelli & M. Tosco (eds.). Milano, Qu.A.S.A.R.: 231-246.

Vanhove, Martine. 2012a. The Beja Corpus. In *ANR CorpAfroAs: a Corpus for Afro-Asiatic languages. Beta version*, Mettouchi, Amina, Martine Vanhove & Dominique Caubet (eds.), http://corpafroas.tge-adonis.fr/Archives/.

Vanhove, Martine. 2012b. A grammatical sketch of Beja. In *ANR CorpAfroAs: a Corpus for Afro-Asiatic languages. Beta version*, Mettouchi, Amina, Martine Vanhove & Dominique Caubet (eds.), http://corpafroas.tge-adonis.fr/Archives/, 69 pp.

Vanhove, Martine & Mohamed-Tahir Hamid Ahmed. 2004. Contrastive negation in Beja: the auxiliary verb *rib. Afrika und Übersee* 85 (2002), p. 81-98.

Wälchli Bernhardt. 2000. Infinite predication in the languages of the Baltic region. *Sprachtypologie und Universalienforschung* 53/2: 186-210.

Wedekind, Klaus & Charlotte. 2002. RRG Universal Verb Classes vs. Beja Verb Classifications Based on Morphologies and Textual Functions. Paper presented at the RRG Conference 2002, University of La Rioja, Logroño. http://linguistics. buffalo.edu/people/faculty/vanvalin/rrg/vanvalin_papers/Wedekind.PDF. (Last accessed 11/07/2012).

Woldemariam, Hirut. 2007. *The grammar of Haro with comparative notes on the Ometo linguistic group*. PhD dissertation, Addis Ababa University.