

Concord feeds apparent non-local allomorphy in Bidhaawyeet
 Andrew Murphy, Bob Offer-Westort. NELS 54, 2023

Background: In Bobaljik’s (2012) cross-linguistic study of suppletion in comparative formation, he proposed that the locality condition for the trigger and target of allomorphy should be restricted to the maximal complex head (X^0) containing both. It has since been claimed that this locality condition is not sufficient, as the form of a given head can be conditioned by the features of a complement or specifier (e.g. in verbal suppletion; Toorsarvandani 2016, Bobaljik & Harley 2017; also see Weisser 2019). Thornton (2019) argues that such problematic cases can be reconciled with the strictly head-local domain for allomorphy if the features are made available locally by a syntactic mechanism such as Agree. The challenge is whether such a process can be independently motivated.

Claim: We provide supporting evidence for this from apparent non-local allomorphic conditioning of object clitics in Bidhaawyeet (Beja). In Bidhaawyeet, the form of an object clitic in a relative clause (RC) appears to be non-locally conditioned by the case and number of the head noun modified by the RC. We will show that this is best viewed as local case-conditioned allomorphy with the relative C head. Evidence for this comes from periphrastic constructions in which the relevant head-local conditioning environment is lost when movement to C is not possible. Furthermore, we will show that this view can capture the forms found in other clause types.

Allomorphy in Bidhaawyeet: As (1) shows, Bidhaawyeet is an SOV language in which objects may be co-referenced by object clitics on the verb. A pronominal object may be (additionally) cross-referenced by a suffix on the verb. In matrix clauses, the object clitics take the ‘H series’, which we treat as the default form (1). Relative clauses and adjectives surface postnominally and show concord with the head noun for case, number and gender (2). We assume that this is the result of feature sharing within DP (e.g. Danon 2011) transferring the features to CP/AP. Concordial markers are postsyntactic Agr nodes adjoined to the modifier (Norris 2014).

- (1) *Ani rhanhook*
 ani rh- -ani [-hook
 1SG see -PRES.1SG -you_{DEF}
 ‘I see you.’
- (2) *Ootak urgagaaga w’iist’a rhan*
 [DP oo- tak [AP [Agr oo-] ragaaga]]
 DEF.MSG.ACC- man DEF.M.SG.ACC- tall
 [CP [Agr oo-] [CP iist’a]]] rh -an
 DEF.M.SG.ACC- was.sitting.3SG saw -1SG
 ‘I saw the tall man who was sitting.’

In a relative clause, the form of the object suffix is conditioned by the case and number of the head noun, as can be seen in (3) through (6) for a second singular object. This allomorphic conditioning appears to be non-local.

- (3) *ootak urhiyanook akteen*
 [DP oo- tak [CP oo- [CP rhiya [-ook
 DEF.ACC.MSG- man DEF.MSG.ACC- saw.3MSG -you_{ACC.SG}]]] akteen
 know.1SG
 ‘I know the man who saw you (sg.)’
- (4) *uutak urhiyanuuk ikteenheeb*
 [DP uu- tak [CP uu- [CP rhiya [-uuk
 DEF.NOM.MSG- man DEF.MSG.NOM- saw.3MSG -you_{NOM.SG}]]] ikteen -heeb
 know.1SG -me_{DEF}
 ‘The man who saw you (sg.) knows me.’
- (5) *eenda irhiyaaneek akteen*
 [DP ee- nda [CP ee- [CP rhiyaan [-eek
 DEF.ACC.MPL- men DEF.MPL.ACC saw.3PL -you_{ACC.PL}]]] akteen
 know.1SG
 ‘I know the men who saw you (sg.)’
- (6) *aanda irhiyaanaak ikteennaheeb*
 [DP aa- nda [CP aa- [CP rhiyaan [-aak
 DEF.NOM.MPL- men DEF.MPL.NOM- saw.3PL -you_{NOM.PL}]]] ikteenna -heeb
 know.3PL -me_{DEF}
 ‘The men who saw you (sg.) know me.’

The forms of object pronouns are summarized in (7). It is worth noting that these are also the forms of the possessive suffixes on nouns (conditioned by the case/number of the possessum). This is something we will also

explain. To account for the apparent non-local conditioning of object clitics by the head noun, we argue that its

		Head of relative clause containing object pronoun			
		ACC.SG	ACC.PL	NOM.SG	NOM.PL
1SG	-heeb	-oo	-ee	-uu	-ii
1PL	-hoon	-oon	-een	-uun	-aan
2SG	-hook	-ook	-eek	-uuk	-aak
2PL	-hookna	-ookna	-eekna	-uukna	-aakna

form is actually conditioned locally (within the same maximal X^0 as its trigger), in line with Bobaljik's (2012) proposal. We assume that the features of the head noun are present on the CP and are realized overtly by the concordial marker. The object clitic is a realization of a probe on v (agreeing with a possible null object)

- (8) $[_{CP} Op_1 [_{TP} [_{vP} t_1 [_{VP} [_{NP} \emptyset] [_{V} \text{see}]] [_{v} \text{-obj}]] T] C_{[sg, acc]}]$ form, e.g. *-ook*, if it is c-commanded by a head X (here: relative C) bearing the relevant case and number features within the same maximal complex head X^0 .
- (9) $[v, 2, sg] \rightarrow \text{-ook} / [[\dots _ \dots] [X, sg, acc]]_{X^0}$

Periphrasis: Supporting evidence for this analysis comes from periphrastic constructions. The future tense in Bidhaawyeeet is expressed by a finite form of the verb 'say', while the main verb appears in a special future form (10). We would expect to find the form *-ook* here (as in (3)) as the head noun is in ACC, but instead find the default form, as in (1). This makes sense, as the v of the lexical verb (hosting the object clitic) does not move to C in this periphrastic construction ('say' does) and is therefore not in a head-local relation with relative C (11).

- (10) *Ootak w'iid'urhook indiib akteen*
 $[_{DP} oo-$ tak $[_{CP} oo-$ $[_{vP} iid'ur$ $\boxed{\text{-hook}}$] indi -b] akteen
 DEF.MSG.ACC- man DEF.MSG.ACC- marry.FUT $\boxed{\text{-you}_{DEF}}$ say.3MSG -ACC know.1SG
 'I know the man who will marry you (sg.)'

- (11) $[_{CP} Op_1 [_{TP} [_{VP} [_{vP} t_1 [_{VP} [_{NP} \emptyset] marry] [_{v} \text{-obj}]] [_{V} \text{say}]] T] C_{[sg, acc]}]$

The negative past tense is also expressed periphrastically by means of the copula verb 'be' and the main verb appears as a deverbal adjective formed by *-aa* (12). Despite the head noun being NOM, there is no external conditioning of the object in (13). This makes sense as the predicate of a copula is generally marked accusative in Bidhaawyeeet. We see this on deverbal adjectives where the adjective bears the (indefinite) accusative case suffix *-b*, as in *ani dayyar -aa -b -u* (I be.tired -PTCP -ACC -be.1SG - 'I am tired'). This indicates that the entire AP receives accusative case in the predicate position of the copula (*-b* is in complementary distribution with object clitics). In both cases, the form of the object clitic is conditioned by the accusative/singular feature on A.

- (12) *Ootak oorhaayook baakaay kaakan*
 $[_{DP} oo-$ tak $[_{CP} oo-$ $[_{AP} rh -aa$ $\boxed{\text{-ook}}$] baa-kaay] kaa-kan
 DEF.ACC.MSG- man DEF.ACC.MSG- see -PTCP $\boxed{\text{-you}_{ACC.SG}}$ NEG-be NEG-know
 'I don't know the man who didn't see you (sg.)'

- (13) *Utak uurhaayook baakaay ikteenheeb*
 $[_{DP} uu-$ tak $[_{CP} uu-$ $[_{AP} rh -aa$ $\boxed{\text{-ook}}$] baa-kaay] itkeen -heeb
 DEF.NOM.MSG- man DEF.NOM.MSG- see -PTCP $\boxed{\text{-you}_{ACC.SG}}$ NEG-be knows -me_{DEF}
 'The man who didn't see you knows me.'

This is why the rule in (8) is more general: X may be the head of CP, AP or even DP. The latter accounts for why possessive suffixes have the forms in (8) which are conditioned by the features of the head noun in D.

Adverbials: We extend our analysis to adverbial clauses, too. We find the ACC SG 'O-forms' in low adverbials (14) and complement clauses, while NOM SG 'U-forms' surface in high adverbials (conditionals). We also account for this as case-conditioned allomorphy: low adverbials/object CPs are c-commanded by the subject and assigned dependent ACC. Conditional clauses adjoin to TP (higher than the subject) and are assigned nominative case.

- (14) a. *ani rhanookehoob giigan* b. *rhaniyuuk giigi andi*
 $[_{CP} ani rh-an$ $\boxed{\text{-ook}}$ -hoob] giigan $[_{CP} rh-ani$ $\boxed{\text{-uuk}}$] giigi andi
 I see-1SG $\boxed{\text{-you}_{ACC.SG}}$ -when left.1SG see-PRES.1SG $\boxed{\text{-you}_{NOM.SG}}$ leave.FUT I.say
 'When I saw you, I left.' 'If I see you, I'll leave.'