

## The Principle Minimal Compliance and derivational competition in South Caucasian agreement

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**Overview** • Often, a particular morphological locus of agreement is *rigid*, always expressing the  $\varphi$ -features of a particular argument (say, the subject). But many languages exhibit agreement loci which are *flexible*, either tracking the subject or the object, depending on the particular argument combination. A number of theories of Agree have been developed which can derive flexible agreement (Béjar & Rezac 2009, Nevins 2011, Deal 2015), but this paper offers a novel account of the phenomenon in the South Caucasian languages that employs an independently motivated syntactic mechanism: the Principle of Minimal Compliance (PMC; Richards 1997, 1998). Combined with a post-syntactic filtering mechanism that compares derivations with identical numerations, a PMC-based approach captures key generalizations about South Caucasian agreement in a principled way and offers better empirical coverage than alternatives.

**Background on the PMC** • The PMC allows a syntactic constraint to be ignored just in case it has been complied with at a previous stage in the derivation. An example of a PMC effect comes from Bulgarian (Richards 1997, via Bošković 1995). In this language’s multiple *wh*-questions, all *wh*-phrases move to the clause periphery. The structurally highest *wh*P must be linearly first, but lower ones are freely ordered (1).

- (1) a.  $Koj_1$   $kogo_2$   $kakvo_3$   $e$   $pital$   $t_1$   $t_2$   $t_3$  ?  
 who whom what AUX asked
- b.  $Koj_1$   $kakvo_3$   $kogo_2$   $e$   $pital$   $t_1$   $t_2$   $t_3$  ?  
 who what whom AUX asked  
 both: ‘Who asked whom what?’

Richards derives this word order flexibility in the following way. When  $C^0$  first probes for a *wh*P, it is subject to standard locality conditions (e.g., Attract Closest), and therefore can only attract the highest one. Having now minimally complied with Attract Closest,  $C^0$  is free to ignore the constraint on subsequent rounds of probing. This leads to

derivational optionality.  $C^0$  may next attract the middle *wh*P (tucking it into a lower specifier) and thereby continue to obey Attract Closest (1a). Or, it may attract the lowest *wh*P and violate Attract Closest (1b).

Though conceived primarily with  $\bar{A}$ -phenomena in mind, the PMC makes predictions about agreement. In particular, once one  $\varphi$ -probe interacts with the closest accessible goal, subsequent probes may interact with erstwhile inaccessible goals. I argue that this prediction is borne out in the South Caucasian languages.

**South Caucasian agreement** • Verbs in the South Caucasian languages have several morphological slots that register arguments’  $\varphi$ -features: a prefixal slot filled by morphemes I assume to be pronominal clitics (following Halle & Marantz 1993); an inner suffixal slot that expresses tense–aspect–mood (TAM) features along with an argument’s  $\varphi$ -features; and an outer suffixal slot for number agreement. However, these agreement loci do not all behave alike: the TAM suffix slot always agrees with the subject (or more precisely, with the highest non-dative argument), while the other slots might covary with either the subject or the object. Table (2) summarizes the patterns, and data from Georgian illustrate (3–5).

(2)

Slot	Clitic	Verb Stem	TAM.AGR	#.AGR
Controller	SUBJ or OBJ		highest non-DAT	SUBJ or OBJ

(3) Only subjects can control TAM suffixes

- a.  $Man$   $isini$   $\{nax-a,$   $*nax-es\}$ .  
 3SG.ERG 3PL.ABS see-TAM.3SG, see-TAM.3PL  
 ‘(S)he saw them.’
- b.  $Mat$   $is$   $\{nax-es,$   $*nax-a\}$ .  
 3PL.ERG 3SG.ABS see-TAM.3PL, see-TAM.3SG  
 ‘They saw him/her.’

(4) Subjects or objects may be clitic-doubled

- a.  $Me$   $is$   $v-naxe$ .  
 1SG.ERG 3SG.ABS 1SUBJ.CL-saw:AGR  
 ‘I saw him/her.’
- b.  $Man$   $me$   $m-naxa$ .  
 3SG.ERG 1SG.ABS 1OBJ.CL-saw:AGR  
 ‘(S)he saw me.’

(5) Subjects or objects may control number suffixes

- a. *Tkven* *iš* *naxe-t*.  
 2PL.ERG 3SG.ABS saw:AGR-PL  
 ‘You.PL saw him/her.’
- b. *Man* *tkven* *gnaxa-t*.  
 3SG.ERG 2PL.ABS saw:AGR-PL  
 ‘(S)he saw you.PL.’

**Analysis** • South Caucasian agreement parallels Bulgarian multiple *wh*-movement in the following way. In South Caucasian verbs, one agreement slot is rigid (it must covary with the subject) while others are flexible (they may covary with the subject or object). Likewise, in Bulgarian one *wh*-‘slot’ is rigid (the leftmost peripheral position must be occupied by the highest *wh*P), while others are flexible (subsequent peripheral positions may be occupied by any lower *wh*P). Cashing in on this parallel, I propose that  $T^0$  in South Caucasian bears three probes: one for person features ( $u\pi$ , expounded by TAM suffixes), one for number features ( $u\#$ , expounded by number suffixes), and one which triggers clitic doubling (for simplicity, call it  $uCL$ ). These are crucially ordered, such that  $u\pi$  probes first. Thus, this probe is rigidly constrained by locality; the highest non-DAT DP (usually the subject) is its only possible goal. When  $u\#$  and  $uCL$  probe, though, the PMC allows them to ignore locality constraints and potentially Agree with the other argument.

**Derivational filtration** • The PMC can result in more than one well-formed syntactic output for a single numeration. This manifests in Bulgarian multiple *wh*-questions as free variation in the order of lower *wh*Ps (1). However, we do not observe free variation in South Caucasian agreement. Just what rules out, for example, the derivations where  $uCL$  triggers clitic doubling of the object in (4a), or the subject in (4b)? I suggest that derivations with identical numerations compete for realization; post-syntactic constraints filter out those whose morphology is not optimally economical and expressive (cf. Kiparsky 2005). Object cliticization loses to subject cliticization in (4a), for instance, because some clitics in Georgian happen to be null; consequently, the attested form  $v$ -*naxe* is more expressive than the alternative  $\emptyset$ -*naxe*. There is no filtration in Bulgarian because alternative word orders tie along these morphological dimensions.

**Comparing alternatives** • Béjar & Rezac (2009) explore another way to capture South Caucasian’s flexible prefix system. For them, these morphemes expone  $v^0$ , which bears a  $\varphi$ -probe relativized to search for [+PART] (first- or second-person) arguments.  $v^0$  first probes downward. If it finds a [+PART] object, it will be satisfied, and cease probing. If it instead finds a [-PART] object,  $v^0$  will Agree a second time ‘upwards’, probing the subject merged in its specifier. This analysis elegantly captures the fact that, should the subject and object both be exponable with an overt clitic, these languages prefer an object clitic (6a).

(6) a. **ERG>ABS:** preference for OBJ cliticization

- Me* *šen* *(\*v-)g-nax-e*.  
 1SG.ERG 2SG.ABS (\*1.CL-)2.CL-sec-TAM.1  
 ‘I saw you.’

b. **DAT>ABS:** preference for SUBJ cliticization

- Šen* *me* *unda* *(\*v-)g-enax-e*.  
 2SG.DAT 1SG.ABS AUX (\*1.CL-)2.CL-sec-TAM.1  
 ‘You should have seen me.’

However, the object clitic preference only holds for clauses with ERG or ABS subjects. In DAT subject constructions, we instead observe a *subject* clitic preference (6b). Assuming a uniform syntax for DAT and non-DAT subject constructions (a hypothesis supported by passivization facts), this fact is a sticking point for Béjar & Rezac’s analysis. However, it follows straightforwardly under

the present account. An object clitic is preferable to a subject clitic in (6a) because it makes the verb as a whole more expressive, indexing features of the argument not reflected by the suffix. But because in South Caucasian DAT subjects are inaccessible to  $u\pi$  (as they are in many languages), the suffix in (6b) actually tracks the object. Therefore, in this case *subject* cliticization makes for a more expressive verb.

One could also explain the coexistence of rigid and flexible agreement loci by stipulating that one probe can only interact with the highest non-dative argument, while the others interact with all arguments — perhaps via Multiple Agree (Hiraiwa 2001, Nevins 2011), or insatiable probing (Deal 2015). Exponence of the latter probes would be sorted out post-syntactically. While similar to the proposed analysis, this alternative offers no explanation for the fact that there is exactly one rigid agreement locus but multiple flexible ones in South Caucasian — something that is predicted by a PMC-based approach.