

Separate from

Problems of Polysynthesis

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Syntax and morphology of polysynthesis in the Georgian verb¹

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1. Georgian is one of the almost sixty autochthonous Caucasian languages, and it is the one with the highest number of speakers (3.5 to 3.8 million, depending on whom you count as speakers of Georgian) and with the oldest literary tradition. It should therefore offer us the unique opportunity to study a history of 1,500 years of polysynthesis. But as far as personal verb-marking is concerned, Georgian has been stable over this time, and its related languages, Laz, Mingrelian and Svan, seem to allow the conclusion that Georgian person-marking largely mirrors the system of the South Caucasian or Kartvelian protolanguage. Changes refer to the loss or extension of third person plural object suffixes and to third person subject suffixes, but not to the subject and object prefixes which I will discuss here. This stability of prefixation over thousands of years is no less remarkable a phenomenon than the better-known “natural” preference for suffixation in other domains of Georgian morphology.

The purpose of this paper is to provide a better understanding of verbal agreement in a polysynthetic language like Georgian. After a short outline of verbal morphology (§ 2), I will describe some constraints on the combination of subject and object markers (§ 3), which lead to a reinterpretation of the dummy head noun *tav-* ‘head’ which is often described as a reflexive pronoun (§ 4). The special problem of indirect object reflexives raises some questions about the nature of agreement and its status in grammar (§ 5). Finally, I will point to the tradition in which these questions are embedded (§ 6).

1 This is a substantially revised version of the article (Boeder 1999). I am extremely grateful for the list of errors, mistakes and improvements kindly provided by George Hewitt (School of Oriental and African Studies, London), in particular for his comment on example (36), which unfortunately I had taken to be grammatical in the former version - a correction that may have major theoretical implications. - Many thanks go to the editor Nicholas Evans for his very careful corrections and for his invaluable insistence on much-needed clarification in some places. - I would also like to thank my colleague Kevin Carpenter for carefully correcting my English.

2. In comparison with its northwestern Caucasian neighbour languages (Abkhaz, Cherkez etc.), Georgian has a rather modest form of polysynthesis in the verb. In Standard Modern Georgian,² most verb forms can be segmented into agglutinatively concatenated morphs whose shape is phonetically very stable and whose boundaries are not blurred. (Note, however, that some of these well-delimited segments of the verb are portmanteau morphs.)

Let us take some simple examples (in fact, (2) is the utterance of a young child (age 1,10,18)!):

(1) a) $\overbrace{me\ gada- v- cer\ ma-s}$
 I Prev-1S-write it-Dat
 'I will copy it'

b) $\overbrace{\check{s}en\ m- nax-av\ me}$
 you 2O-see-TS I
 'you will see me'

(2) *did-i* *tevz-i*
 big-Nom fish-Nom

$\overbrace{mo- m- i- tan- a\ babua-m\ Tamaz[i]-s}^3$
 Prev-1O-OV-bring-3S(Aor) grandfather-Erg Tamaz-Dat
 'Grandfather brought me, Tamaz, a big fish' (IMEDA3E – TUIE 1992: 63)

In the pronunciation of these and other forms, morphophonemic changes are almost absent. Word order is "free", although, for instance, the post-verbal position of the clitics *ma-s* and *me* in (1) is the most natural one, and the word order of (2) is determined by information structure. The order of verbal morphemes does not necessarily mirror clausal word order.⁴ Normally, it cannot mirror this order at all, since Georgian seems to have one and only one slot for subject and object prefixes which is occupied by *m-* 'me' in (1b) and (2). On the face of it, the term "polypersonal" may even look misleading in the case of Georgian verbal person-marking.⁵ But let us look more closely at the structure of Georgian verb forms.

In contrast to nominal forms, whose inflectional affixes are exclusively suffixal, verbs have both suffixes and prefixes. Disregarding interdependencies between morphemes and combinations with the copula, the following sequential positions may be distinguished:

2 For a concise and very clear survey of Georgian grammar, see IMEDA3E – TUIE 1992: 44-54.

3 This is the only non-adult form in (2): the child has reanalyzed the nominative *Tamaz-i* 'Tamaz-Nom' as a stem by analogy with the pattern of (adult) *Giorgi-ø* 'Giorgi-Nom', *Giorgi-s* 'Giorgi-Dat'. The correct adult form would be *Tamaz-s*.

4 As it does to some extent in Abaza; see ALLEN 1956.

5 On this disparity between valency and person marking see e.g. GAMQRELI3E 1979; 1981.

1. Preverb I: *uku*- ‘back’
2. Preverb II, e.g. *še*- ‘into, onto’
3. Preverb III: *mo*- ‘hither, German *her*-’
4. Subject marker, e.g. *v*- ‘I’
5. Object marker, e.g. *m*- ‘me’
6. Version vowel: *a*, *e*, *i* or *u*
7. Root, e.g. *naxv*- ‘see’
8. Passive/inchoative marker, *-d*
9. Thematic suffix, e.g. *-eb*
10. Participle formant: e.g. *-ul-*
11. Causative formant: *(-ev)-in*
12. Causative thematic suffix
13. “Extension marker”,⁶ e.g. *-d*
14. “Paradigm marker”,⁶ e.g. *-i*
15. portmanteau 3rd person subject number marker
16. Object Plural marker

Table 1: Morphological slots of the Georgian verb

Two additional examples⁷ might give an impression of what a Georgian verb form can look like:

- (3) *uku*- *še*- *mo*- *g*- *a*- *brun*- *a*
 back(1)-PrevII(2)-PrevIII(3)-2O(5)-NV(6)-(re)turn(7)-3Sg(Aor)(14)
 ‘(s)he made (Aor) you return here’
- (4) *da*- *g*- *a*- *cer*- *in*- *eb*- *d*-
 PrevII(2)-2O(5)-NV(6)-write(7)-Caus(11)-CausTS(12)-Ext(13)-
 a- t
 3Sg(Past)(14)-Pl(O)(15)
 ‘s/he would make (Cond) you(Pl) write it’

6 “Extension (marker)” (13.) is FÄHNRIK’s 1991 translation of A. Shanidze’s term: *savrcobi* (ŠANIŽE 1973); ARONSON 1991 uses “imperfect/conditional marker” and includes *-n-* of some of the perfect forms (*uqep-n-ia* ‘s/he/it has (apparently) barked’) and the copula in complex verbs in this position. “Paradigm marker” (14.) is again taken from Fährnich; ARONSON 1991, following A. Shanidze (*mçkrivis nišani*), uses “screeve marker”. VOGT 1971 calls the paradigm marker *-e* of the “weak aorist”: “suffixe thématique”, and *-i* of the “strong aorist”: “voyelle d’appui”; HEWITT 1995 calls *-e* “indicative”.

7 The examples are taken from DAMENIA 1982, who offers a complete survey.

I will not discuss these “slots” in detail. Suffice it to say that one important feature of Georgian verb morphology is that in some cases the presence or absence of one affix requires the presence of another.⁸ For example, the causative suffix *-in-* (slot no. 11) in the last example requires the presence of a version marker (slot no. 6), which is *-a-* in the default case.

Of primary interest here are the personal prefixes of the slots 4, 5 and 6 and, to some extent, the number markers 15 and 16. These markers are displayed in table 2:

Person	Singular	Plural		
(a)	1 v / Ø__	v / Ø__t	morpho- logical subject	
2	Ø / x__	Ø / x__t		
3	__ a / o / s	__ n / an / en / es / nen		
(b)	1 m__	gv__		
2	g__	g__t		
(c)	3	s / h / Ø__(t)		
(d)	1	[Ø-]i__	reflexive	beneficiary
2	[Ø-]i__	non-		
3	[Ø-]i__	intensified		
(e)	1	m-i__	gv-i__	specified indirect object
2	g-i__	g-i__	non-	
3		Ø-u__(t)	reflexive	
(f)	1	m-e__	gv-e__	morphological object
2	g-e__	g-e__t		
3		Ø-e__(t)		
(g)	1	m-a__	gv-a__	
2	g-a__	g-a__t		
3		Ø-a-__(t)		

Table 2

8 Note that circumfixation is one form of Georgian nominal derivation, e.g. *Sa-kartvel-o* ‘Prefix-Georgian-Suffix’ = ‘Georgia’.

The leftmost column of numbers refers to person. The items in section (a) are subject markers, the rest are object markers of different types. Note that the terms “morphological subject” and “morphological object” are defined in terms of their markers in the verb: morphological subjects are referred to by the markers in (a), morphological objects by those in (b)-(g). The whole question of a definition of subject, direct object and indirect object in a syntactic or semantic sense cannot be discussed here, and it is largely irrelevant to the issue of slot-filling and its syntactic corollary.

Let us look at some properties of the morphological system tabulated in table 2.

Firstly, consider the coding of subjects in section (a): the opposition between 1st and 2nd person on the one hand and 3rd person on the other is doubly coded by the presence vs. absence of a prefix and by the absence vs. presence of what is called a 3rd person suffix,⁹ which is a portmanteau morph coding 3rd person, number and tense at the same time. This differential coding of 3rd vs. non-third person subject is of interest here because subject prefixes are often non-overt (see below sequence constraint Ia)). Non-overtness (of *x-* and *v-*, for example) has to be distinguished from absence (non-existence according to table 2).

Secondly, 1st and 2nd direct and indirect object markers are the same, but there is no 3rd person direct object marker: section (c) refers to indirect objects only. Number is a different matter: Old Georgian, but not Modern Georgian, had a 3rd person direct object plural marker *-n*:

(5) a. Modern Georgian

mi- s- c- a ma-s

Prev-3IO-give-3Sg(Aor) s/he-Dat

‘s/he gave(Aorist) **it** to him/her’ or ‘s/he gave(Aorist) **them** to him/her’

b. Old Georgian

mi-s-c-a ‘s/he gave **it** to him/her’ vs.

mi- s- c- n- a ma-s

Prev-3IO-give-Pl(O)-3Sg(Aor) s/he-Dat

‘s/he gave **them** to him/her’.

Plural marking in Modern Georgian cannot be discussed here. Roughly speaking, the plural *t* bracketed in (c), (e)-(g) occurs with dative subjects and with those dative indirect objects that are higher on the animacy/empathy/agentivity scale than the “morphological subject” (BOEDER 1989: 171; 181).

Thirdly, indirect objects, which do have 3rd person markers, are differentiated into subtypes by the presence or absence of a “version vowel”, which occurs in four different forms:¹⁰ *i* in sections (d) and (e), *u* in section (e), *e* in section (f) and *a* in section (g). The

9 With many verbs, this contrast is also marked by ablaut.

10 For an extensive discussion, see BOEDER 1969.

vowelless forms in sections (b) and (c) are neutral indirect object markers, while, for instance, *i* and *u* typically mark beneficiaries, and so on. These subtypes need not concern us here, except that the opposition between simple, vowelless indirect object markers and indirect object markers specified by a version vowel will be relevant for the slot-filling hierarchy discussed below.

Fourthly, person markers are often described as a kind of personal or anaphoric pronoun inside the verb (see section 5. below). But third person verb subjects need not be definite. 3rd person markers can be indefinite in conditional clauses and potentialis contexts (BOEDER 1989: 162):

(6) Modern Georgian (from a fairy tale)

tu Ø- e- codineba, ima-s Ø- e- codineba bat-is garemoeba-Ø
 if 3IO-EV-knows, he-Dat 3IO-EV-knows goose-Gen surrounding-Nom
 ‘if anybody knows, he will know the whereabouts of the goose’

Compare the following examples from Old Latin (7) and Old Greek (8)-(9) (Wackernagel 1926: 112):

(7) *si in ius vocat, ni it, antestamino* (XII Tables, 5th cent. BC)
 if in law he.calls, if.not he.goes, *antestatio*.should.be made
 ‘if **somebody** brings **somebody** else into court, and he does not go, he shall call witnesses’

(8) a. *θυγατρὶ ἦν δίδω* (Cretan inscription)
 daughter.Dat if he.gives
 ‘if **somebody** gives (a dowry) to his daughter’

b. *οὐδέ κεν ἔνθα τεόν γε μένος καὶ χείρας ὄνοιτο* (Homer N 287)
 and.not Particle there your Particle might and hands he.would.blame
 ‘[If we were chosen for an ambush fight] **nobody** would blame then your force and your hands’

Notice that zero objects need not be anaphoric either:

(9) a. Old Georgian (Matthew 7,8)
romel-i x-¹¹ e- zieb- n p̄ov- i- s
 who- Nom 3IO-EV-*seek*- Frequ(Pres) find-Frequ(Aor)-3S(Sg)
 ‘he who seeketh [sc. something] findeth [sc. it]’

11 One of the oldest versions of the Gospel, the so-called Khanmeti text, has *x-* instead of *s-/h-/Ø-* as a 3rd person indirect object marker.

b. Modern Georgian (proverb)

kurd-ma kurd-s mo-h-p̄ar-a da ymertma gaicina-o
 thief-Erg thief-Dat Prev-3IO-steal-3S(Aor) and God laughed-Quot
 ‘A thief stole **something** from a thief, and God laughed.’

In Georgian, then, person markers are not anaphoric by themselves, and in this they differ from what are commonly considered “3rd person pronouns” in Georgian. As pointed out by N. EVANS (this volume), they are rather semantically unspecific in some languages and lack the “expressive possibilities” of free pronouns. It remains to be seen which non-specific arguments can be coded by 3rd person markers (or zero, for that matter). It is clear that only non-intensified indefinites do in Georgian,¹² and that the “semantic threshold” for this type of marking is much higher than in the Australian languages described by N. Evans.¹³ What seems to be required is some degree of specificity based on a context that introduces an imagined referent into the universe of discourse, but without implying an impossibility or arbitrariness of choice as in: [Giorgi needs a birthday present:] *We must buy something for him* (where Georgian **must** have *rame* ‘something’ = Russian *čto-nibud*’; here 3rd person object marking would be insufficient).

3. What happens if subjects and objects are combined? As I have said above, Georgian verbs are polypersonal in the sense that subjects and different objects are coded in the verb. On syntactic grounds, I will argue that the template of the Georgian verb must contain one slot for subject prefixes and one for object prefixes.

However, prefixed person markers are almost always restricted to one overt prefix, and suffixed person and number markers to one overt suffix in Modern Georgian. The following morphological and morphosyntactic rules concur to produce this effect:¹⁴

12 For a study of the scale of indefiniteness, its emphatic, “expressive” members (“who/whatever you want”, “God knows who/what”), and their bleaching see HASPELMATH 1991.

13 For instance, “maybe he will marry again” requires an explicit direct object: *vin icis, ikneba kvlav šeirtoš col-i* (RK) ‘who knows, it.will.be again that.he.marries wife-Nom’.

14 There are many proposals in the “western” literature on this topic that try to capture the regularities of person and number coding in the Georgian verb and its concomitant “tavization” (see 4. below), e.g. DEETERS 1931:41-42; VOGT 1971: 84-87; BOEDER 1969: 85-86; ANDERSON 1984; 1992: 137-156; HEWITT 1995: 128-142; HARRIS 1995: 1382. One of the best is BRAITHWAITE 1973, who discusses the relevant facts in terms of “output constraints” that block concord. Similarly, ANDERSON (1984: 209) invokes the concept of “filter”.

I. Sequence constraints

(a) Prefix sequence constraint

There is only one prefix slot available for **overt** subject and object markers. Prefixed subject markers are non-overt either with lexically specified verbs or in the presence of overt prefixed object markers.

The only obvious exception is the combination of 1st person subject plus 3rd person indirect object marker in literary Old and Modern Georgian (and in some modern dialects), e.g. in:

- (10) *v-s-çer* (spoken Georgian: *v-çer*)
1S-3IO-write 'I write it (to) him/her'.

But the subject marker *x-* is non-overt in Modern Georgian, except with the verb "to be" and "to go" (*x-ar* 'you are', *mo-x-val* 'you will come', etc.), and *v-* is non-overt before the object marker *g-*, e.g. in:

- (11) *minda g- a- koc-o, m- a- koc-o* (from a poem by Važa Pšavela)
I.want.it 2O-NV-kiss-Opt, 2O-NV-kiss-Opt
'I want to kiss you, [and] you to kiss me'

As we will see, these markers are "suppressed", not "disposed of" (to use ANDERSON'S (1984) terminology).

Note that this constraint is not of a phonological nature: the expected forms

- (11') **v- g- a- koc-o, (x-) m- a- koc-o*
1S-2O-NV-kiss-Opt, (2S-)1O-NV-kiss-Opt

are perfectly possible from the point of view of phonotactics,¹⁵ but they do not occur, neither in Old Georgian nor in Modern Georgian. It is a morphological constraint, and it is superficial in the sense that from a syntactic point of view, the 1st and 2nd person markers count as being present in the verb. Therefore, they are in a sense zero allomorphs (entered as \emptyset in table 2),¹⁶ and must be present at one level of representation.¹⁷ The "suppression" of verbal

15 Cf. *v-galob* 'I sing', *xma* 'voice'; see BRAITHWAITE 1973: 66.

16 HARRIS (1981: 31) interprets the non-overtness of subject markers as deletion. I prefer a zero allomorph interpretation because it accounts for the syntactic availability of non-overt markers. ANDERSON'S (1984) interpretation (in which affixes are spelt out by disjunctively ordered rules) presupposes an availability of the subject entities (features?) on a different level of morphosyntax.

markers may have a functional motivation. As AMIRIՅԷ (1998) points out on the basis of R. Langacker's empathy hierarchy, it is the less prototypical (less expected) arguments (3rd person (agent) subjects and 1st and 2nd person (patient) objects) that are preferably marked by an overt verbal affix.¹⁸

The suffix sequence constraint is different in many respects:

(b) Suffix sequence constraint

Object plural markers oust the subject 3rd singular marker *-s*, and are usually ousted by subject 3rd person plural markers.

For example:

- | | | | |
|------|-----------------------|--------------------------|---------------------------|
| (12) | <i>g- xaṭ- av- en</i> | | (* <i>g-xaṭ-av-en-t</i>) |
| | 2O-paint-Pres-3Pl | 'they paint you(Sg/Pl)' | |
| | <i>g- xaṭ- av- t</i> | | (* <i>g-xaṭ-av-s-t</i>) |
| | 2O-paint-Pres-Pl(O) | 's/he paints you(Sg/Pl)' | |

vs. *da- g- xaṭ- a- t*
 Prev-2O-paint-3S(Aor)-Pl 's/he painted you(Pl)'

In contrast to the prefix constraint, the suffix constraint did not exist in Old Georgian. The modern form is the result of morphological simplification.¹⁹ This simplification entails no communicative problems, in spite of so-called "pro-dropping". Suffixes will not be considered for the rest of this paper.

As will become clear later in this paper, these sequence constraints have no syntactic impact, and this distinguishes them from the following constraint which restricts object coding in the verb:

II. Prefix slot-filling constraint

In the morphological template of the Georgian verb, there is one, and only one, slot for object markers.

17 Note that subject marking *v-* makes its first appearance after its object counterpart *m-* in language acquisition (at the end of the second or the beginning of the third year; IMEDAՅԷ - TUIՏԷ 1991: 58-64). As is pointed out by IMEDAՅԷ and TUIՏԷ, this order may have different reasons, e.g. similarity of *m-* 'IO' with *me* 'I', frequency of occurrence of a class of indirect verbs with *m-* (ib. pp. 63-64). But one additional factor could be transparency (code simplicity: phonological stability of object marking) vs. allomorphy involving zero.

18 Similar ideas are found in ASATIANI 1994 and TANDAՏՎԻԼԻ 1996; 1998.

19 I hesitate to interpret it as a phonotactic phenomenon, although word-final *n-#* and *s-#* occur only rarely in Modern Georgian.

In other words, one, and only one, object can be coded in the verb, and all other objects are confined to a verb-external coding.

Now, if there is only one slot available, how is the competition problem solved if there is more than one object? The answer is that the object slot is filled according to the following hierarchy:²⁰

III. Slot-filling hierarchy

specified indirect object > 1st/2nd person indirect object > other objects

That is, specified indirect objects take precedence over 1st and 2nd person indirect objects, which in turn take precedence over other objects. This hierarchy combines a functional role hierarchy with the person hierarchy.²¹ Consider a sentence such as:

- (13) *tvalebi g- i- gav- s maqval- sa* (from a folk-song)
 eyes 2O-OV-resemble-3Sg blackberry-Dat
 ‘your eyes are like blackberries’ (lit.: ‘eyes resemble you to blackberry’)

In this sentence, there are two indirect objects: ‘you’ and ‘blackberry’. But only the former is a specified indirect object, because it is marked by the version vowel *-i* in the sequence *g-i-* ‘to you’. The specified indirect object ‘you’ takes precedence over the non-specified 3rd person indirect object ‘blackberry’ which cannot be marked in the verb. Notice that precedence in this example is based on which argument is specified, not on person: the same precedence relation holds for 3rd person specified indirect objects (as in (lit): ‘eyes resemble her to blackberry’, in the sense of: ‘her eyes are like blackberries’). - Similarly, a quadri-valent verb²² as in:

20 Although most of the “facts” of person marking are covered in the earlier literature, BRAITHWAITE (1973: 73) seems to have been the first to introduce the idea of “hierarchical ranking based on Function (Benefee, Object, Subject)” and on the “peer” relation between 1st and 2nd person on the one hand and the non-peer relation between 1st/2nd person and 3rd person on the other. “We might, metaphorically, characterize the situation as one in which the various UAS [= underlying abstract structure] functions/persons “jockey” for the privilege of concord in the FVF [= finite verb form]. The fate of any “loser” is not uniform for all eligible “competitors” in a particular SV(B)O [= subject verb (benefee) object] syntagm, nor will the particular entity (e.g. a particular Person) that loses in one specified syntagm (e.g. a Series I [= present tense group] collocation) also lose out in another (say Series III [= perfect tense group])” (BRAITHWAITE 1973: 65-66).

21 See BRAITHWAITE 1973: 75.

22 Avtandil Arabuli (Georgian Academy of Sciences, Tbilisi) has kindly provided me with an example of even higher “valency”: *mi-g-i-šver-in-e (me šen) žox-i mçqems-s xbo-s-tvis / xbos-s Prev-2O-OV-hold.out-TS (I you) stick-Nom sheperd-Dat calf-Gen-for / calf-Dat* ‘I made the shepherd hold out the stick at your calf’; cp. Khevsurian: *sam-s da-g-i-yer-eb-av qel-sa* (A.

- (14) *Tamaz-i m-i- čm-ev- s švil- s p̄ur-s*
 Tamaz-Nom 1O-OV-eat-Caus-3Sg child-Dat bread-Dat
 ‘Tamaz makes the child eat bread for me’; ‘Tamaz feeds my child bread’²³

does not allow any object to be marked in the verb except the specified indirect object, *m-i-* ‘for me’. (Note that causees are indirect objects in Georgian, as in many other languages.)²⁴ In a sentence like ‘s/he commits me to you’, the indirect object (*-g-* ‘(to) you’) takes precedence over the direct object (‘me’):

- (15) *ča- g- a- bar- eb- s šen čem-s tav- s*
 Prev-2O-NV-commit-TS-3Sg you my-Dat head-Dat
 ‘s/he commits me to you’

where the 2nd person indirect object (‘you’) is coded in the verb and the dative direct object ‘me’ is not. The direct object must appear in a syntactically different form: *čem-s tav-s* ‘my head’, that is the dummy head noun ‘head’ which we will consider below. An example with different case alignment (ergative - nominative with an aorist (optative) verb form) is:

- (16) *xširad gv-a-nax-o-s ymert-ma tkven-i tav-i* (MD)
 often 1PIO-NV-see(Caus)-Opt-3Sg God-Erg your-Nom head-Nom
 ‘May God let us often see you’

where only the indirect object causee ‘us’ is coded in the verb.

Činčarauli, Xevsurulis taviseburebani p. 328,15) three-Dat Prev-2O-OV-hold.out-TS-Quot hand-Dat ‘I will reach for three things’*for you*’

23 For more examples of this type see ŠANIŠE 1973 § 402; VOGT 1971: 123.

24 It will be seen that my evidence for the slot filling hierarchy is incomplete. No example is given for the combination: “specified indirect object + 1st/2nd indirect object.” Quadrivalent verbs should yield sentences like (14’): ‘Tamaz makes you (indirect object causee) eat bread (direct object) (for) me (specified indirect object beneficiary)’. But as far as I can see now, these combinations seem to be unacceptable, and the corresponding examples given in an earlier paper (Boeder 1989: 175; 183, note 21) were probably based on the compliance of too liberal an informant. Demotion of the beneficiary indirect object is the preferred coding strategy in this case: as in English, an adpositional phrase is used instead (*čem-tvis* ‘me-for’ = ‘for me’), which avoids the complexity, because postpositional phrases are not eligible for intraverbal coding. However, the expected combination does occur under specific conditions: *Vaxtang-i m-i-rčevni-a šen-s tav-s* ‘Vakhtang-Nom 1O-OV-prefer-3Sg your-Dat head-Dat’ (lit. something like: ‘for me Vakhtang is preferable to you’ = ‘I prefer Vakhtang to you’), where the “specified indirect object” (*m-i-* in our example) has subject properties (for example control and number agreement). The whole issue need not be discussed here since the problem of slot competition is independent of these details.

Under certain conditions, “other objects” leaves us with a choice. In: ‘he will sell me to him’, both objects are eligible for the slot. If the 1st person direct object (‘me’) is chosen, the form will be:

- (17) $\overbrace{mi- \ m- \ qid-i- \ s \ me \ ma-s}$
 Prev-1O-sell-TS-3Sg I he-Dat
 ‘s/he will sell me to him/her’²⁵

Alternatively, we may have:

- (18) $\overbrace{mi- \ \emptyset- \ qid- \ i- \ s \ ma-s}$ *čem-s* *tav-s*
 Prev- 3IO- sell-TS-3Sg s/he-Dat my-Dat head-Dat
 ‘s/he will sell me to him/her’

where \emptyset marks the 3rd person indirect object, whereas the direct object is not coded in the verb and must appear again in a syntactically different form. It remains to be determined whether the person hierarchy normally overrides the functional hierarchy, that is, whether (17) is the preferred variant.²⁶ Example (18) illustrates a further point: the 3rd person object has a non-overt, phonologically empty marker. Yet zero in the sense of table 2 is not absence, since zero marking prevents other object markers from filling the same slot (here: the marker for ‘me’). Note that one archaic dialect of Old Georgian had *x-* instead of zero (see (6b)), and the morphosyntactic rules of prefix person marking has not changed essentially during the last 1,500 years.

So the coding of objects in the verb has syntactic consequences: the presence or absence of a verbal marker for one object entails a specific form of other object noun phrases. What is this form?

4. As the arguments (subjects and objects) of a verb are more or less coded in the verb itself, most verb forms can function as self-sufficient clauses, and they often do: (19) (a), (b) and (c) are complete sentences. In terms of generative grammar, they result from “pro-drop” (or “stripping” in K. Braithwaite’s terminology), and (a’), (b’) and (c’) represent the “full” form:

- (19) (a) *v- čam*
 1S-eat ‘I eat it’

25 G. Hewitt has reminded me of the fact that even in the absence of *me mas*, *-m-* in (17) cannot refer to an indirect object (‘to me’) because the preverb *mi-* indicates a direction towards a 3rd person (roughly speaking, *mi-* corresponds to German *hin-* and contrasts with *mo-* ‘her’).

26 For some data and observations see ŠANIŽE 1973: 333 §400; VOGT 1971: 86-87; 122; VAMLING 1988: 316-318; BOEDER 1989: 181-182.

- (a') $\overbrace{me \ v- \ \check{c}am \ ma-s}$
I 1S-eat s/he/it-Dat 'I eat it'
- (b) *m-čam*
1O-eat 'you eat me'
- (b') *šen m-čam me*
you 1O-eat me 'you eat me'
- (c) *čam-s*
eat-3S(Sg) 's/he eats him/her/it'
- (c') *is čam-s ma-s*
s/he(Nom) eat- 3S(Sg) him/her/it 's/he eats it'
- (c'') *is čam-s qvel-s*
s/he(Nom) eat- 3S(Sg) cheese-Dat 's/he eats cheese'

But there is a difference between the personal pronouns *me* in (a') and (b') and *šen* in (b') on the one hand, and case-marked pronouns like *is* in (c') *ma-s* in (a') and (c'), which parallel *qvel-s* in (c''), on the other. *me* and *šen* are verb-external counterparts of verb-internal 1st and 2nd person markers, and they are underspecified in that they do not show the subject-object contrast of the latter (*v-* in (a) vs. *m-* in (b)). They are not case-marked, whereas appositions are (BOEDER 1979: 438):

- (19a'') $\overbrace{me \ \check{s}e\check{c}uxebul-i \ v-čam \ ma-s}$
I worried-Nom 1S-eat it-Dat 'I eat it, worried'

'Worried' is a case-marked apposition of the verb-internal pronoun *v-*, and *me* is its verb-external counterpart simply marking contrast, etc., as do other verb-external pronouns in "pro-drop" languages. Now the following generalizations seem to apply:

IV. Generalization on morphological case-marking

Nominals (pronouns and nouns) that cannot be coded in the verb must be coded in verb-external case-marked noun phrases.

Consistent with my interpretation, *is*, *ma-s* and *qvel-s* in (a'), (c') and (c'') are case-marked noun phrases, but while *me* (in (19a'')) is a noun phrase,²⁷ it is not case-marked.

With this in mind, we are now in a position to formulate a rule for the *tav*-headed noun phrases of (15) and (18):

V. Generalization on dummy heads

1st and 2nd person, reflexive and intensified pronouns cannot be case-marked. In case-marked noun phrases without head nouns, they become possessive determiners, and a dummy head noun *tav*- 'head' is supplied (to which generalization IV applies).

So we get for instance *čem-s tav-s* (see (18)). The singular possessive pronouns are *čem*- 'my', *šen*- 'your', and *tavis*- elsewhere (for non-1st, non-2nd reflexive and intensified pronouns).

There are some exceptions to V which cannot be discussed here. For instance, although they are not coded in the verb, some, mostly non-argumental, noun phrases occur without *tav*-: complements in identificational sentences (as in: *me rom šen viqo* I if you were 'if I were you'²⁸) and forms like *čem-it* 'my-Instr' = 'by myself', *tavis-it* 'by him/her/itself' where an underlying head noun seems likely;²⁹ for the 2nd person vocative see below.³⁰

IV and V jointly "trigger" the use of the *tav*-headed noun phrases in examples such as:

- (20) *rac mo- g- i- va dav- ita- o,*
 whatever Prev-2O-OV-will.come dispute-Instr-Quot,
qvela šeni tav- ita- o (proverb)
 all your head-Instr-Quot
 '... it all happens to you by/because of yourself, it is said'

where 'by yourself' has no counterpart in the verb *mogiva* 'it happens to you'.

27 Coordination requires a noun phrase status of *me* for instance in: *me da čem-ma kmar-ma v-i-angariš-e-t* I and my-Erg husband-Erg 1S-NV-calculate-TS-PIS = 'I and my husband calculated (and nothing fell to my brother-in-law's share)' (proverb).

28 Interestingly, the 19th century writer Ilia Chavchavadze uses a possessive form: *me rom šen-i viqo* I if your-Nom were 'if I were you'; see BOEDER 1989: 183.

29 Compare *tu me čem-it mo-g-a-çon-e-t tav-i* (Ilia Chavchavadze) if I my-Instr Prev-2O-NV-please(causative)-TS-PIS head-Nom 'if I ingratiated myself with you by myself' with Old Georgian: *me tav-it čem-it viqw* (John 7,17) I head-Instr I.say.it 'I speak of myself'.

30 One important issue is raised by Old Georgian examples like: *mydel-t mozyuar-ta mo-m-c-es me šen* (John 18,35) priest-PIObl master-PIObl Prev-1O-give(aorist)-3PIS I thou 'the chief priests have delivered thee unto me', where Modern Georgian must have *šen-i tav-i* 'your-Nom head-Nom' instead of *šen*. It is not clear how far such examples are the result of translational calquing. For a detailed study of this phenomenon see ŠALVAŠVILI 1992.

Some comments on IV and V are now in order.

Firstly, pronouns are determiners; some are case-marked (*is*, *mas* in (19) (a'), (c')), others are not, for instance *me* in (19) (a'), (b'), but also *še* in (21a) and *me* in (21b):

- (21) (a) *še mamaʒayl-o!*
 you(Sg) son.of.a.bitch-Voc!
 'you son of a bitch!'
- (b) *me mamaʒayl-s da-m-a-vičq-d-a es čeril-i*
 I son.of.a.bitch-Dat Prev-IO-NV-forget-Inchoative-3SgS this.Nom letter-Nom
 'I, a son-of-a-bitch, forgot this letter!'³¹

But why is it that the non-case-marked pronouns in V are possessive determiners instead of simple determiners as in (21)? There seems to be a restriction on 1st and 2nd person, reflexive and intensified pronouns: they must occur in an argument position or have a counterpart in an argument position. As long as they occur in a verb, they are its arguments; in sentences like (19)(a'), *me* has a verb-internal counterpart, and the possessive pronoun in *čem-s tav-s* in (18) is not just a determiner, but functions as the equivalent of a genitive noun phrase in argument position. As a result, Georgian noun phrases with possessive pronouns mirror the structure of the verbal complex with a major category as its head and the pronouns as its sister categories. *tav*-headed phrases are a device providing dummy head nouns with extra argument positions.³²

Secondly, the use of the dummy head noun is one single phenomenon, not the coincident output of two distinct operations: reflexivization and so-called "object camouflage",³³ which cover only part of the uses anyway (they do not cover examples like (20)!). And once one assumes that *tav*-headed noun phrases are not (necessarily) reflexive, their occurrence in a subject position is not particularly surprising:³⁴

- (22) *čem-ma tav-ma m-a-izul-a me*
 my-Erg head-Erg IO-NV-force-3S(Aor) I
 'It was me who forced myself'

31 BOEDER 1985: 64-64.

32 BOEDER 1989: 176, on the basis of a suggestion I owe to L. Máracž.

33 HARRIS (1981: 51) describes "Object camouflage" as follows: "If a clause contains an indirect object, a first or second person direct object in that clause is realized as a possessive pronoun + *tavi*, where the possessive reflects the person and number of the input form". She argues that "Object Camouflage and *Tav*-Reflexivization cannot be accounted for with a single syntactic rule" (ib. 52). See also ANDERSON 1984: 209.

34 ASATIANI 1982: 89; BOEDER 1989: 169.

While the head noun *tav-* controls verbal agreement (the verb bears a 3rd, not a 1st person subject marker),³⁵ it is irrelevant for anaphoric relations: it is the possessive determiner, and not the head noun *tav-*, that bears the referential index.³⁶

Thirdly, note that IV and V presuppose an assumption we made earlier about 1st and 2nd person verbal subject markers, namely that they are present for the purpose of syntax (that they are syntactically available), although they do not surface as phonologically non-empty segments. Syntax presupposes for instance the form (11'); if the non-overtness of *v-* in (11) (according to constraint Ia)) were syntactically relevant, the rules IV and V would yield:

(11'') **čem-ma tav-ma g-a- koc-o-s*
 my-Erg head-Erg 2O-NV-kiss-Opt-3S(Sg)

The distribution of these “hidden” person markers justifies the positing of zero subject marker allomorphs in the presence of 1st and 2nd person object markers. The positing of zero subject markers allows a unified account of the occurrence of the dummy head noun.

There are three instances where the joint conditions of IV and V are met.

A. The pronoun is not a verb-internally codable argument but some adverbial expression like *šeni tav-ita* ‘by yourself’ in (20) or the self-addressing vocative in:

(23) *čem-o tav-o, bedi ar giçeria* (from a poem by A. Çereteli)
 my-Voc head-Voc, fate not it.is.written.for.you
 ‘O me, you aren’t granted good fortune’.

The address or call:

(24) *šen* ‘you!’ (not: **šen-o tav-o!* ‘your-Voc head-Voc’)

is an exception. Alternatively, it may be considered as a simple summons, not a noun phrase.³⁷

B. The argument cannot be coded in the verb because no appropriate marker is available. Firstly, verbal reflexive direct object markers simply do not exist, they are not just \emptyset . Therefore they must be determiners with *tav-*:

35 BOEDER 1969: 89, 103; 1989: 176.

36 BOEDER 1969: 104; 1989: 174.

37 See BOEDER 1985; 1989: 169.

The slot is filled with a 1st person indirect object marker *m-*, therefore the direct object 'you' cannot be marked in the verb and occurs as a possessive determiner of *tav-*. Similarly, in the causative construction:

- (30) *g- a- kvl-evin-eb čem-s tav-s*
 2O-NV-kill- Caus-TS my-Dat head-Dat
 'I make you kill me'
 (**v-g-a-kvl-evin-eb*)

the direct object 'me' must be a phrase with *tav-*, because the object marker position is filled with the indirect object marker *g-* 'you' for the causee. (For further examples see (15), (16), (18).) Note again that the purely morphological sequence constraint Ia) has no syntactic consequence at all; although *v-* is deleted, *g-a-kvl-evin-eb* behaves as if the complete form **v-g-a-kvl-evin-eb* were there (i.e. *čemi tavi* is not required as a subject noun phrase).

5. The square brackets of reflexive [Ø] in table 2 (d) deserve special attention. On the one hand, [Ø] behaves like Ø in (18), because no direct object can be marked in the verb: 's/he paints you for herself/himself' has to be rendered by:

- (31) [Ø]- *i- xat- av- s šen-s tav-s*
 Refl-SV-paint-TS-3S your-Dat head-Dat

where the direct object 'you' is expressed by 'your head'. The form:

- (32) *g- i- xat- av- s*
 2O-OV-paint-TS-3S

is perfectly correct, but it has a different meaning, namely: 's/he paints it for you'.³⁹ However, although the verbs in (18) and (31) share the blocking behaviour based on rules II and III, they are different (a) morphologically and (b) syntactically.

(a) Contrary to overt object markers, reflexive [Ø] does not oust the subject marker *v-* according to rule Ia):

39 Forms like (31) must be distinguished from forms of lexically fixed "reflexive" verbs in which the object slot preceding a neutral version vowel *-i-* is empty and can be filled (TSCHENKÉLI 1958: 386; BOEDER 1969: 106), as in: *gamo-m-i-čer-s* Prev-1O-NV-write-3S(Sg) 's/he will summon me (by letter)'. As a consequence, *-m-i-* can be ambiguous: it is either an object marker specified by the "object version vowel" *-i-* ('for me') or an object marker plus neutral version vowel *-i-*: *m-i-gd-eb-s* 1O-OV-throw-TS-3S(Sg) 's/he throws it for me' vs. *m-i-gd-eb-s xel-ši* 1O-NV-throw-TS-3S(Sg) hand-in 's/he achieves control of me' (see VOGT 1971: 122).

- (33) *v-[Ø]-i-çer*
 1S-Refl-SV-write ‘I write for me/myself’

(b) Morphological presence does not equal syntactic availability. Non-reflexive Ø in (e)-(g) of table 2 has all kinds of external adjuncts:

- (34) *q̄vela-s / prezident-s a-v-Ø-u-šen-e* *did-i saxl-i*
 all-Dat / president-Dat Prev-1S-3IO-OV-build-TS big-Nom house-Nom
 ‘I built a big house for everybody / for the president’

where ‘all’ or ‘president’ has to be linked to the indirect object marker Ø. Similarly in (35), ‘children’ is linked to *g-*, and ‘adults’ to *v-*:

- (35) *bavšv-eb-s čai-s da-g-i-sxam-t,*
 child-Pl-Dat tea-Dat Prev-2O-OV-pour-Pl,

upros-eb-i ki yvino-s da-v-lev-t (RK)
 adult-Pl-Nom but wine-Dat Prev-1S-drink-Pl
 ‘We will give you, the children, tea, but we, the adults, will drink wine.’

Reflexive zero is different: as far as I can see, there is no indication of its syntactic availability (“syntactic activity”).⁴⁰ For instance, it cannot have appositions:

- (36) **mq̄opad prezident-s a-Ø-i-šen-e* *did-i saxl-i*
 future president-Dat Prev-Refl-SV-build-TS(Aor) big-Nom house-Nom
 ‘You built a big house for you(rself), the future president’

A dative form like *prezident-s* cannot be an “apposition” of the reflexive indirect object marker [Ø] in the way that *Tamaz-s* is an apposition of *-m-* in (2). Instead, the apposition has to be linked to the subject:

- (37) *mq̄opad prezident-ma a-[Ø]-i-šen-e* *did-i saxl-i*
 future president-Dat Prev-Refl-SV-build-TS(Aor) big-Nom house-Nom
 ‘You, (as) the future president, built a big house for you(rself)’

Note that verb-external, *tav-*headed “reflexive” noun phrases do not preclude appositions:

40 See SADLER - SPENCER 1997: 224-226 for some discussion of the syntactic availability of morphological reflexives.

(like the 3rd person indirect object markers in table 2 (c), (e)-(f)). It is not a morphological unit, but stands for the presence of an argument at the level where arguments enter into the competition described above.

As we said above, *tav*-headed noun phrases do not code reflexivity by themselves, which explains their occurrence in subject position (see (22)). But could we say that the possessive pronouns of *tav*-headed noun phrases (which bear its referential index) can be reflexive? Consider:

- (39) *q̇vav-sa-c tavis-i baxala mo-s-çon-s* (proverb)
 crow_i-Dat-too its_i-Nom young(Nom) Prev-3IO_i-please-3SgS
 ‘Even the crow_i likes its_i own young.’

where the dative subject is co-referential with the possessive pronoun *tavis-*. But although this pronoun is called “reflexive” in the grammatical tradition, it is not necessarily controlled by the subject:

- (40) (a) *ma-s tavis-i barat-i Svanet-ši gavugzavne* (GT)
 she_i-Dat her_i-Nom letter-Nom Svanetia-in I.have.sent.it.to.her_i
 ‘I have sent her_i her_i letter to Svanetia’
- (b) *zma gavistumre tavis-i col-švil-it*
 brother_i (Nom) I.saw.him_i.out.as.a.guest his_i-Instr wife-child-Instr
 ‘I saw my brother_i out with his_i wife and his_i child’
- (c) *Nodar_i-i šeakrto tavis_i-ma xma-m*
 Nodar_i-Nom it.frightened.him_i his_i-Erg voice-Erg
 ‘His_i own voice frightened Nodar_i’⁴³

In other words: while *tavis-* codes intra-clausal anaphora, it is not specifically controlled by the subject of the clause (in whatever sense). Although we have a clear case of subject-non-subject asymmetry on the morpholexical level (where a reflexive indirect objects is specifically coded in the verb), and although we need subjects to account for control properties (coreference across clause boundaries) and the like, pronouns are not criterial of subjecthood on the clause-level.

6. The main point made in this paper is the specificity of the Georgian type of “agreement” between verb-internal and verb-external entities. If we conceive of agreement only as a kind of feature copying from verb-external entities into the verb, one distinctive property of Georgian verb agreement is not accounted for: the form and occurrence of verb-external

43 (b) and (c) are from an as yet unidentified Georgian source.

entities partially depends on the properties of the verb. This recalls the old concept of the finite verb form as a clause *in nuce* which can be expanded by adding “appositional” subject and object noun phrases. In this sense, *Tamaz-s* in (2) is an “apposition” of the verbal marker *-m-* ‘I’.⁴⁴ On an analytical level, this idea turns up as “catalysis” in LOUIS HJELMSLEV’s theory (1961: 93-96), where e.g. the expanded forms in (19a’), (19b’) and (19c’) are the result of an “interpolation” of external entities that must be posited to extract the internal categories of the verb (VOGT 1971: 88) – a procedure that every Georgian child has to master in school. In the framework of generative grammar, on the other hand, the non-expanded forms are interpreted as “stripped” of underlying argument co-constituents (BRAITHWAITE 1973: 10 et passim) whose non-overtness has come to be known as “pro-drop”.

A more sophisticated variant of the “appositional” approach was proposed in the configurationality debate (see e.g. JELINEK 1989). According to this theory, the verbal complex exhibits the fully-fledged array of its arguments, and noun phrases are linked with verbal arguments if they are compatible with them. Indeed, compatibility is an intuitively satisfying concept to characterize the agreement relations described in this paper. In particular, the assumption of the linking of compatible entities is a straightforward way to describe such things as 3rd person “appositions” of 1st person subjects or objects (as for instance in (35)) without resorting to pro-drop for non-overt extraverbal arguments. I am still in favour of this approach, and yet a better understanding of “agreement” will depend both on an account of complex data like those presented in this paper and on a theory that characterizes the relationship between morphology and syntax in a principled way. Such a theory has to clarify the question of whether morphological operations necessarily and exclusively depend on the output of syntax (ANDERSON 1984; see HARRIS 1995: 1382), or whether other interdependencies are conceivable. If the interpretation of reflexives proposed above is correct, it means that more operations of Georgian grammar are morpholexical than standard descriptions suggest.

ABBREVIATIONS

Adv	= adverbial case	O	= object
Aor	= aorist indicative	Opt	= optative, subjunctive II
Caus	= causative	OV	= objective version
Cond	= Conditional	Part	= participle formant
Dat	= dative	Perf	= perfect
DO	= direct object	Pl	= plural
Erg	= ergative	Poss	= possessive
EV	= e-version	Pres	= present

44 For more examples see BOEDER 1989: 178

Ex	= extension marker	Prev	= preverb
Frequ	= frequentative (Georgian: "xolmeobiti", Deeters: "Permansiv")	Quot	= quotative
Fut	= future	Refl	= reflexive
Instr	= instrumental	S	= subject
IO	= indirect object	Sg	= singular
Gen	= genitive	SupV	= superessive version
Neg	= negation	SV	= subjective (reflexive) version
Nom	= nominative	TS	= thematic suffix ("paradigm marker")
NV	= non-specifying (neutral) version	Voc	= vocative

Other abbreviations are initials of my informants

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