

On the origin of Kartvelian “version”

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Abstract. *Among the categories marked in the Kartvelian verb is one that grammarians designate as “version”, linked to a vowel prefix directly preceding the verb root (preradical vowel, PRV). In textbook examples, the PRVs have an applicative-like function, indicating the addition of an overt indirect object, or an implicit reflexive coreferent with the subject. PRVs also mark particular types of intransitives, and in many verbs the PRV is lexically specified. In this paper, I will look at all contexts in which PRVs appear, including nonfinite verb forms and a small number of archaic deverbal nouns with frozen PRVs. I will argue that PRVs originally signalled a contrast in verbal trajectory between an inward (introvert) orientation toward the deictic center, associated with presupposability, animacy, and the 1st and 2nd persons; and an outward (extravert) orientation away from the deictic center toward a target or surface — associated with patienthood and inanimacy.*

1. Georgian has the reputation of being a difficult language to master, a reputation not helped by the first hurdles students must confront: an unfamiliar alphabet, daunting consonant clusters, split ergativity. The verb is a challenge in and of itself, and the presentation of its morphology and paradigms commonly takes up more space than all other sections of the grammar combined. On the other hand, the terminology used to describe the Georgian verb is for the most part quite familiar to anyone who has studied Indo-European languages. Students of Georgian will however have to learn at least one new term: *version*, a grammatical category marked by vocalic prefixes preceding the verb root (“pre-radical vowels”; henceforth PRV). The word “version” was chosen by Shanidze (in the French résumé of Shanidze 1925) as the equivalent of Georgian *kceva* (turning, behavior, change), and consequently appears in almost all grammars and reference works on Georgian published since then (Deeters 1930; Vogt 1938, 1971; Tschenkéli 1958; Zwolanek 1976; Cibaxašvili 1978; Aronson 1991a; Hewitt 1996; Natadze 2001; Makharoblidze 2012a; as well as the important study by Boeder 1968, Nachtr 1969). In this introductory section I will present examples typical of those used in works such as the ones just listed, then review the history of the description of the phenomenon by grammarians and linguists from the 18th century to the present. This will be followed by a detailed analysis of the distribution of the PRVs, including contexts not usually considered in discussions of Georgian or Kartvelian version, and an attempt to reconstruct the function and semantic attributes of these prefixes in the protolanguage.

2. **The category of “version”.** The Kartvelian verb is primarily agglutinative, although morphophonemic processes can obscure morpheme boundaries in Svan, and to a lesser degree in Mingrelian. Descriptions of verb morphology typically segment the verb into morpheme slots. Slots, however, can be grouped into zones of similar function, moving outward from the root:

Table 1. The internal structure of the Kartvelian verb

1. <i>root</i>				ROOT				
2. <i>stem formants</i>			version		causative, passive, verbal plurality, series marker			
3. <i>inflection</i>		person				imperfect, tense/mood	person/number	
4. <i>clitics and preverbs</i>	preverbs, clitics							clitics

As an illustration, here is a verb from the Old Georgian gospels, to illustrate the relative positions of the PRV and other morpheme types which will be relevant to the following discussion, within the zonal structure described in Table 1:¹

- (0) ⁴[ga-mo-³[gw-²[i-¹[mart’]¹-eb]²-d-a]³]⁴
 Pv-Pv-O1incl-**PRV**-explain-SM-IMPF-S3sg
 “he explained (the scriptures) to us” (Luke 24:32)

2.1. Preradical vowels as version markers. The PRV immediately precedes the verb root, and directly follows the person prefix(es), if any. Many transitive verbs in Georgian can appear with contrasting PRVs, as in the Modern Georgian examples shown below:

- (1a) lia surat-s xat’-av-s
 L-NOM picture-DAT paint-SM-S3sg
 “Lia paints a picture” (neutral version)

- (1b) lia surat-s i-xat’-av-s
 L-NOM picture-DAT **PRV**-paint-SM-S3sg
 “Lia paints a picture *for herself*” (subjective version)

- (1c) lia surat-s m-i-xat’-av-s
 L-NOM picture-DAT O1sg-**PRV**-paint-SM-S3sg
 “Lia paints a picture *for me*” (objective version, 1st person indirect object)

¹ Abbreviations: G Georgian, OG Old Georgian, M Mingrelian, Lz Laz, Sv Svan (unlabeled examples are in Georgian); Pv preverb, PRV pre-radical vowel, SM series marker, S subject marker, O object marker, IMPF imperfect; NOM nominative, ERG ergative, DAT dative.

(1d) lia surat-s u-xat’-av-s deda-s
 L-NOM picture-DAT PRV-paint-SM-S3sg mother-DAT
 “Lia paints a picture *for her mother*” (objective version, 3rd person indirect object)

(1e) lia surat-s a-xat’-av-s k’edel-s
 L-NOM picture-DAT PRV-paint-SM-S3sg wall-DAT
 “Lia paints a picture *on the wall*” (superessive or locative version)

In contrast to the basic form without PRV in (1a), the verbs in the following four sentences signal the orientation of the denoted action — or, in Shanidze’s (1925) words, its relation or dependence (*urtiertoba, damok’idebuleba*) — toward the subject in (1b), a beneficiary in (1c) and (1d), or a surface on which the action occurs in (1e). So-called “subjective version” (G. *satavisio kceva*), marked by the vowel *i- in (1b), indicates that the denoted action is in some sense for the benefit of the referent of the grammatical subject, or that the referent of the direct object is part of the subject’s body or attached to it (Deeters 1930: 82). For many verbs, the “subjective version” contrasts with an “objective version” form, indicating that the activity is for the benefit of the speaker, hearer, or another referent. “Objective version” (G. *sasxviso kceva*), entails the addition of an indirect object, which typically refers to a beneficiary. As usually described in the literature, the objective-version prefix has two allomorphs: *i- when the beneficiary indirect object is 1st & 2nd person (1c), and *u- with it is 3rd person (1d). The addition of an indirect object is also the norm when a verb is marked for superessive version (*sazedao kceva*; 1e), although the argument denoting the surface is not infrequently marked by a postposition (*surats a-xat’av-s k’edel-ze* [wall-on]).

Intransitive verbs can also contain PRVs, although the range is more limited. Root (ablauting) intransitives, statives and inchoatives can be marked for objective and superessive version:

(2a) naq’in-i bavšv-s u-dn-eb-a
 ice.cream-NOM child-DAT PRV-melt-SM-S3sg
 “*The child’s* ice cream is melting” (objective version)

(2b) k’arak-i p’ur-s a-dn-eb-a
 butter-NOM bread-DAT PRV-melt-SM-S3sg
 “Butter is melting *on the bread*” (superessive version)

The PRV /i/, identical to that which signals subjective version, is part of the morphology of a type of intransitive, commonly referred to as a “passive” by grammarians, even though it may

have a different relation to its corresponding transitive (see §6.2 below). A typical example is in (3a). The substitution of the PRV /e/ ordinarily indicates the addition of an indirect object of whatever kind:

- (3a) c'eril-i i-gzavn-eb-a
 letter-NOM PRV-send-SM-S3sg
 “The letter is being sent” (monovalent passive)
- (3b) c'eril-i e-gzavn-eb-a lia-s
 letter-NOM PRV-send-SM-S3sg Lia-DAT
 “The letter is being sent *to Lia*” (bivalent passive)

2.2. Lexically-specified preradical vowels. As noted by Shanidze and others, the basic forms of certain verbs have a lexically-specified PRV, that is, a prefix which is not associated with the category of version in the strict sense. The *i*-prefixed intransitive such as in (3a) above represents one such verb type, as is the large class of primary or derived transitive verbs with PRV /a/ but no indirect object, e.g. *a-nt-eb-s* “lights (e.g. candle)”; *a-šen-eb-s* “builds”; *a-dn-ob-s* “melts (causes to melt)”. Other verb types with lexically-specified preradical vowels are shown in table 2. These include transitives with the PRV *i-* in their basic forms; also statives in *a-* and medial verbs in *i-* (more information on all of these verb types further down in this paper). As analyzed by Shanidze, the basic forms of these verbs represent neutral version rather than superessive or subjective. For each type shown the basic (neutral-version) PRV contrasts with PRVs representing objective version, and sometimes other version categories. Some verbs with neutral version in *a-* have formally-identical superessives governing an indirect object.

Table 2. Verb types with lexically-specified preradical vowels

verb type	basic (neutral version)	SubV	ObjV	superessive
transitive	<i>a-šen-eb-s</i> “builds”	<i>i-šen-eb-s</i> “builds for oneself”	<i>u-šen-eb-s</i> “builds for sb”	<i>a-šen-eb-s</i> “builds onto sthg”
causative	<i>a-gd-eb-in-eb-s</i> “has sb/sthg thrown out”	<i>i-gd-eb-in-eb-s</i> “has thrown out for os”	<i>u-gd-eb-in-eb-s</i> “has thrown out for sb”	—
stative	<i>a-b-i-a</i> “is bound”	—	<i>u-b-i-a</i> “is bound for sb”	<i>a-b-i-a</i> “is bound to sthg”
transitive	<i>i-c'q'-eb-s</i> “begins”	—	<i>u-c'q'-eb-s</i> “begins for sb”	—
medial	<i>i-glov-s</i> “mourns”	—	<i>e-glov-s</i> “mourns for sb”	
intransitive	<i>i-c'er-eb-a</i> “is being written”	—	<i>e-c'er-eb-a</i> “is being written for sb / on sthg”	

A considerable number of Georgian verbs have no version contrast at all. The stative verb *u-q’var-s* “loves” is, as far as its form is concerned, marked for objective version, but Shanidze (1953: 354) considers it to be version-less (*ukceo*), due to the absence of forms with contrasting PRVs (*a-q’var-s), or without a PRV (*h-Ø-q’var-s).²

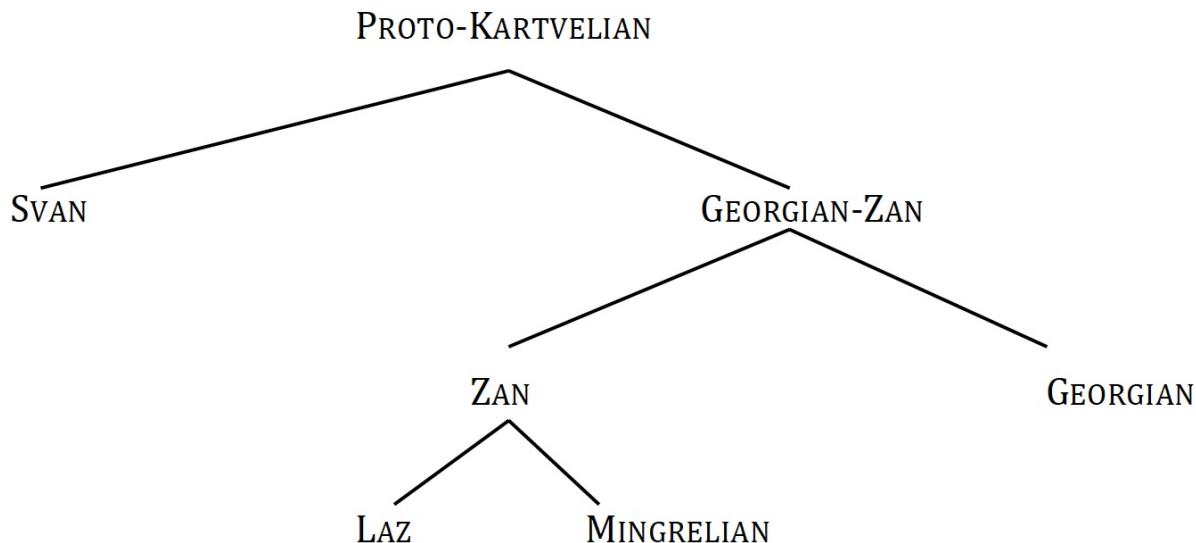
2.3. Paradigm-specific preradical vowels. In Georgian and the other Kartvelian languages, the PRVs also play a role in the formation of certain tenses, in particular, those which were integrated into the paradigm sets of Kartvelian verb classes comparatively recently (Jorbenadze 1983: 92-3; Tuite 1994, 1996). These include the perfect and pluperfect of transitive and intransitive verbs; and the future and aorist of medioactive, mediopassive and stative verbs. The transitive perfect and pluperfect originated as stative-passives; the stative aorist, in its turn, seems to have been recruited from the dynamic intransitive conjugation. As a consequence, a PRV can be added, or changed, within the paradigm set of a given verb, as shown in table 3. For example, a Georgian transitive verb, whether or not it contains a PRV, has a present perfect with the “objective version” PRVs *i-/u-*, and a pluperfect in *e-* (formally identical to a bivalent passive aorist).

Table 3. Paradigm-specific preradical vowels.

	Georgian	Svan	
TRANSITIVE PRESENT	c’er-s	ä-yr-i	“writes”
transitive perfect	(da)-u-c’er-i-a	x-o-yr-a	“has written”
transitive pluperfect	(da)-e-c’er-a	x-o-yr-ān	“had written”
INTRANSITIVE AORIST	mo-u-vid-a	oxqäd [a-x-o-qäd]	“came to sb”
intransitive perfect	mo-h-Ø-svl-i-a	axqeda [a-x-a-qed-a]	“has come to sb”
MEDIAL PRESENT	byav-i-s	q’ül-i	“bleats, yells”
medial aorist	(da)-i-byavl-a	läyq’üle [la-i-q’ül-e]	“bleated, yelled”
STATIVE PRESENT	h-Ø-gon-i-a	x-a-bž-a	“seems to sb”
stative aorist	e-gon-a	x-e-bž-ān	“seemed to sb”

2.4. The distribution of PRVs according to verb type, and the semantic features associated with them, are largely the same in all members of the Kartvelian language family. (The differences in distribution, especially notable in Svan, will be presented below).

² The 3rd-person object prefix is Ø before vowels in all Kartvelian languages, except Svan and the language of the earliest Old Georgian texts. When no PRV is present and the O3 prefix directly precedes a consonant, it can sometimes appear as /h/ or /s/, depending on the chronological period, phonological context, dialect and other factors (Shanidze 1953: 187-191).



The closely-related Mingrelian and Laz languages (commonly grouped together under the label “Zan”), and the outlier Svan, have the same contrasts of neutral, subjective, objective and superessive version, marked by the same vowels (allowing for the Mingrelian-Laz vowel shifts *a > /o/ and *e > /a/, and the irregular correspondence of the Svan PRV /o/ to Georgian and Mingrelian-Laz /u/). Furthermore, all Kartvelian languages show the distinction in objective version between the PRV /i/ with a 1st or 2nd person indirect object, and /u/ (Svan /o/) with a 3rd person indirect object (Table 4):

Table 4. Subjective and objective version in Georgian and Svan

	Georgian	Svan	meaning
NeutralV (Ø)	kal-i p'ur-s t'ex-s	zuräl diär-s k'wiš-e	the woman breaks bread
SubjectiveV (i-)	kal-i p'ur-s i-t'ex-s	zuräl diär-s i-k'wš-e	the woman breaks bread for <u>herself</u>
ObjectiveV, 1 st person indirect object (i-)	kal-i p'ur-s m-i-t'ex-s	zuräl diär-s m-i-k'wš-e	the woman breaks bread for <u>me</u>
ObjectiveV, 3 rd person indirect object (G. u-, Sv o-)	kal-i <u>bavšv-s</u> p'ur-s u-t'ex-s	zuräl <u>bepšw-s</u> diär-s x-o-k'wš-e	the woman breaks bread for <u>the child</u>

The above examples serve only to introduce the notion of version; a fuller account of the distribution and functions of the PRVs will be provided in the main part of the paper.

3. Pre-radical vowels and version in Georgian grammars. The earliest descriptions of the Georgian language, whether by native speakers or foreigners, drew upon the Classical and European grammatical traditions. Verbs were grouped into “conjugations” and “voices”

according to their suffixes, as in Latin or French. Prefixal elements (except for the subject-person markers) were, on the whole, accorded less importance than suffixes. Verb forms including PRVs appeared as examples, but the vowel prefixes were not singled out for attention. Judging by his choice of examples, Shanshovani (1737) considered the PRV /i/ as one of the markers of the passive (*savnebo*) voice. In this voice category he included not only true passives marked by the PRV /i/, such as (3a) above, but also verbs such as *i-ban-s* “washes oneself”, a transitive in subjective version with reflexive meaning. The grammar of Catholicos Anton I (1753) mentions “preverbal” (*zmniszeda*) elements which “make visible the circumstances of actions or undergoings”, but the author does not segment PRVs from other prefixal morphemes, such as person markers.

The first detailed descriptions of PRVs and their functions came nearly a century later. The French Orientalist M. F. Brosset (1837: 139–140) isolated the “compléments pronominaux” /a/, /e/, /i/, which he compared to the vowels occurring in deictic pronouns (*ege* “this near you”, *igi* “that”). These are combined with the “pronoms inséparables” O1sg /m-/, O2 /g-/, etc., to form person prefixes in the verb, while adding their specific values to its meaning: /a/ “toujours actif et le plus souvent transitif”; /i/ “souvent aussi actif ou neutre, mais éminemment passif”. Like Shanshovani, Brosset considers the /i/ of prefixal passives (as in 3a), and the /i/ marking subjective-version transitives (as in 1b), to represent the same morpheme. Brosset’s association of the PRVs with deixis was echoed by Dirr (1905: 28–30) and Jorbenadze (1983: 203); whereas other grammarians of the time followed Shanshovani’s lead, and included these prefixes among the markers of voice (Zhordania 1889: 50–51; Janashvili 1906: 65; see also Adamia 2012).

The next significant step was the juxtaposition of verb paradigms differing only in PRV, in order to ascertain their contribution to verb semantics. Chubinov (1855: 16–17) characterized transitive verbs with contrasting PRVs as “relative verbs” (*glagoly otnositel'nye*), the prefixes serving to indicate that “the action is undertaken in the interest of oneself or another (*v pol'zu svoju ili čužuju*)”. The semantics of PRVs were isolated in similar manner by Dodašvili (1887), and associated with a category he labeled *gvari* (“genus, clan”, a term now used by Georgian grammarians to designate the category of voice). Early studies of the Svan verb by Uslar (1861/1887) and Zavadskij (1890: XI) likewise included lists of verbs differing by “form” (*forma*), by which was meant distinctions of voice and valence associated with the PRVs /a/, /e/, /i/; as well as transitive, intransitive and causative suffixal morphology.

In his two grammars of Georgian, Marr (1925: 136–141; Marr & Brière 1931: 138–141) groups verbs into “classes” (according to their series markers), “conjugations” (according to the morphology of the aorist); and “breeds” or “varieties” (*porody*). This last term refers to the

configuration of the verbal base in very much the same sense as Uslar’s “form”, including valence-changing suffixes and the three PRVs just mentioned. The active and passive voices each have four *porody*: those of the active reflect the verb’s argument structure (basic; reflexive with PRV *i*-; transitive with PRV *a*-; causative with PRV *a*- and suffix *-in/-un-eb*); whereas those of the passive correspond to different categories of intransitive verbs, including prefixal passives such as (3a) and (3b). Marr interpreted certain PRVs as “particules pronominales objectives” in the genitive (/i/) and dative-accusative (/a/) cases (Marr & Brière 1931: 141; cf. Marr 1908: 3, also M. Mach’avariani 1987: 37–44 for an updated variant of this hypothesis).

The category of “version” (*kceva*) was defined, named and revised by Akaki Shanidze in a series of publications going back to his 1920 doctoral thesis. His initial description of *kceva* was to a significant degree a refinement of Marr’s *poroda*, with a greater focus on PRVs and less on suffixes, except for the causative formants. Version in something like its present form appeared in a 1925 paper, in which Shanidze defined five versions signaled by prefixes exclusively: (i) “neutral” (*saarviso*, “for no one”) in Ø- or /a/; (ii) “subjective” (*sataviso*, “for oneself”) in /i/; (iii) “objective” (*sasxviso*, “for another”) in /i/ and /u/; (iv) “superessive” (*sazedao*, “for on top”) in /a/; and a fifth labeled *satano* (“for taking along”), to designate indirect object markers unaccompanied by a PRV. Shanidze’s aim was to describe Georgian grammar on its own terms, rather than force it into templates derived from Indo-European or Semitic linguistics, and to define categories on the basis of structural analysis and meaningful contrasts among forms. In Shanidze’s view, therefore, a verb only expressed version if it contrasted with another version form derived from the same stem. In later writings, Shanidze pruned away the *satanao*, treating it as a special case of the neutral version, and assigned the superessive to a distinct category, called “situation” (Shanidze 1953: 382–389). The basic meaning of the category of version, now reduced to a three-way distinction of neutral, subjective and objective for transitive verbs, and a binary one (neutral vs. objective) for intransitive verbs, is the marking of “possession” (*k’utvniliba*) or “destination” (*danišnuleba*) of the denoted activity with respect to the grammatical subject or the indirect object (Shanidze 1953: 332). As mentioned at the beginning of this paper, the category of version as defined by Shanidze has been included in descriptions of Georgian and the other Kartvelian languages from the 1930s to the present, although most grammars of Georgian in West European languages continue to include the superessive as a type of version (e.g. Tschenkéli 1958, Aronson 1991a, Hewitt 1996; also Boeder 1968, 2005).

Aside from further descriptive work on the category itself in Georgian and the other Kartvelian languages (Jorbenadze 1975, 1983; M. Mach’avariani 1987; Aronson 1982; among others), some linguists have addressed broader questions concerning the relation between Kartvelian version

and grammatical categories in other languages. Shanidze himself (1953: 362-3) compared the Indo-European middle voice to the Georgian subjective version (also Schmidt 1965). Anderson & Gurevich (2005) detected version-like categories in other languages (e.g. Turkic serial-verb construction signaling “primary affectedness”).³ Conversely, some linguists working on Kartvelian languages have sought to replace the concept of version with one or more categories already in use in general linguistics, such as (high and low) applicatives (Lomashvili 2010), or an extended definition of the category of voice (Lacroix 2009: 13).

4. The distribution and functions of Kartvelian preradical vowels. What Shanidze’s and most other approaches to version have in common is that paradigms from transitive verbs with 3 or 4-way contrasts are taken as the starting point, and other occurrences of preradical vowels are either squeezed into the same mold, or banished to other categories. Two notable exceptions are Jorbenadze’s 1983 monograph on the Georgian PRVs, which includes a chapter on each prefix; and M. Mach’avariani’s (1987) thought-provoking analysis of certain PRVs in terms of intro-/extra-version (more on this later). My approach, like Jorbenadze’s, is bottom-up and ultimately historical in nature, beginning with detailed descriptions of the distribution of each vowel, with the aim of detecting common features and possible paths of change. Although Jorbenadze’s and Mach’avariani’s work has had a deep influence on my thinking about PRVs, there are significant differences: In this paper I give fuller consideration to the distribution and functions of PRVs in the other Kartvelian languages, as well as to the layering of the PRVs, from the lexical to the derivational and applicative levels.

Although the distribution of the PRVs as version markers has changed little since the initial division of the Proto-Kartvelian speech community, evidence is available which stimulates speculation about the earlier functions of these prefixes. Of special significance are nonverbal forms containing PRVs, which have hitherto received little sustained attention from linguists. Topuria (1947) and Vogt (1974), noted that prefixes etymologically related to the PRVs *a- and *i- occur in participles and a small number of nouns. According to Vogt, the PRVs /i/ and /a/ “semblent ... avoir servi à la fois dans la dérivation nominale et dans la dérivation verbale”, as illustrated in the Georgian examples in Table 5:

³ Aronson (1991b) also proposed a cross-linguistic category of “version”, but defined it in such a way that Georgian does not fit the prototype very closely. Aronson’s version is a verbal category specifying whether the denoted action principally effects the grammatical subject (“subjective version”), or direct object (“objective version”).

Table 5. PRVs in participles and nouns

	*a- (root -xl- “touch”)	*i- (root -s(v)r- “shoot”)
lexically-specified “version”	a-xl-eb-s “touches”	i-svr-i-s “shoots”
participle in s-	s-a-xl- “house” (“site of closeness”)	OG s-i-sr-a “shooting”
nouns (frozen prefix)	a-xl-o- “close, near”	i-sar- “arrow”

For many of the nouns with the frozen prefix /a-/, one detects “le sens de localisation dans l’espace”; whereas the nouns in /i-/ have “un sens qui les rapproche des participes passifs” (isar- “ce qui est lancé”; Vogt 1974). One important difference between the present study and previous work on version and PRVs — including Jorbenadze’s — is special consideration accorded to the role of these prefixes in the derivation of nouns and participles.

My principal argument in this paper is that version, as we know it in the Kartvelian languages, emerged from an older distinction between the primary PRVs *a- and *i-, whereas the secondary PRVs *u- and *e- can be considered specialized alternants of *i- in particular contexts. The three-way contrast between verb stems marked with *a-, *i- and no PRV can be detected at several layers of word formation, beginning with the association of a verb root with one or the other PRV in the lexicon; valence-changing derivational operations; and then subjective and objective version in Shanidze’s sense, as an operation creating (explicit or implicit) indirect objects for most verb types.

From analysis of the contexts in which the PRVs occur, with special attention to verb roots which display a particular affinity for *a- or *i-, the original contrast between forms marked with one or the other PRVs and unmarked forms can be characterized as one of trajectory or orientation of the action (or state) denoted by the verb. The PRV *a- was primarily associated with locative or superessive meaning — situating an action on a surface or target —, from which emerged its link to transitivity, in the sense of action directed toward a goal. Jorbenadze (1983: 115-122) characterized the core meaning of the PRV *i- as “reflexivity” (*uk’ukcevitoba*). The Georgian term used by Jorbenadze is especially apt, as it evokes a “turning back” toward a participant in the denoted action, or even the speech context itself. Flowing from this concept of “turning back” are three clusters of meanings linked to the PRV *i-: (i) attributes associated with the middle voice, such as intransitivity, reflexivity, passive/antipassive (Benveniste 1950/1976; Kemmer 1993); (ii) “introversion” as understood by M. Mach’araviani (1987), that is, orientation toward either the grammatical subject or a speech-act participant (1st or 2nd person); and (iii) foregrounding of the subject as human agent, acting in a social context.

5. The pre-radical vowel *a-. In the following sections, the distribution and functions of Kartvelian preradical vowels will be presented, beginning with the primary PRVs *a- and *i-. For each vowel, the presentation of its functions will follow this order:

- (a) Applicative: addition of the PRV to the basic form of a finite verb, indicating the addition of an overt or implied (reflexive) indirect object to the argument structure.
- (b) Non-applicative: primary or derived verbs which contain the PRV in their basic form.
- (c) Participial prefixes containing the PRV.
- (d) Deverbal nouns with frozen PRVs.

5.1. The “superessive”. After initially including the superessive in the category of version, Shanidze (1953: 382-389) ascribed it to a grammatical category he called “situation”, which is marked in a large number of transitive, intransitive and stative verbs.⁴ The prefix *a- can appear in all verb types, except i-prefixed passives and medial verbs (M. Mach’avariani 1987: 116-8). Verbs in the superessive version take an indirect object, denoting a place or surface on which the described action or event takes place: **a-z-i-s** “sits on sthg/sb” < z-i-s “sits”; Sv **x-a-kwš-e** “breaks sthg on sthg” < kwiš-e “breaks”; OG romel-i **a-ps-m-i-d-e-s** k’edel-sa (“that pisseth against the wall”; I/III Kings 14: 10); **a-c’er-i-a** “is written on sthg” < s-c’er-i-a “is written”. Although commonly grouped with the objective version as a type of applicative (e.g. Lacroix 2009: 520), the superessive is less commonly used, and can be accompanied by morphological changes elsewhere in the verbal stem, especially with regard to the series marker (SM), a root extension which appears in the present/imperfect series of paradigms.⁵ Note the presence of the SM *-ew (G. -eb, M. -an) in the superessive verbs in Table 6:

Table 6. Series marker change in the superessive version.

basic transitive (*√-aw-)	superessive (*a-√-ew-)
G. č’ed-(av)-s “forges, hammers sthg” M. č’k’ad-ən-s	G. a-č’ed-eb-s “forges, nails sthg <u>onto sthg</u> ” M. o-č’k’ad- <u>an</u> -s
G. purtx-av-s “spits” M. purt’in-un-s	G. a-purtx-eb-s “spits <u>on sb/sthg</u> ” M. o-purt’in- <u>an</u> -s
G. par-av-s “covers” M. por-un-s	G. a-par-eb-s “covers sb/sthg <u>with sthg</u> ” M. o-por- <u>an</u> -s

The change in SM is likely to be linked to a shift in aspectual characteristics: verbs such as č’ed-(av)-s are telic durative, whereas their derivatives in *a-√-ew- (e.g. a-č’ed-eb-s) are telic punctiliar, with a focus on the moment of attachment (Tuite 2003).

⁴ Makharoblidze (2012b) summarizes the debate over the status of the superessive.

⁵ On series markers, see Harris 1985: 189-208; Tuite 2003.

5.2. Verbs with non-applicative (“neutral version”) PRV *a-:

a. Primary *a-transitives. A few dozen primary transitive verbs, many of them with nonsyllabic roots, take the PRV *a- in their basic, bivalent “neutral version” form (Shanidze 1953: 334-5). In other words, they never appear without a PRV, either neutral *a-, or a PRV linked to an added argument (subjective, objective, superessive version). Almost all of these verbs have the SM *ew/eb (Shanidze 1953: 407-8). Georgian and Mingrelian cognates of some typical verbs of this type are shown in Table 7:

Table 7. Cognate primary *a-transitives in Georgian and Mingrelian

stem	Georgian	Mingrelian	Proto-Georgian-Zan
*a-g- “build”	a-g-eb-s	o-g-an-s	*x-a-g-ew-
*a-gz- “light, incite”	a-gz(n)-eb-s	o-rz-an-s	*x-a-gz-ew-
*a-c’(w)- “dip”	a-c’-eb-s	u-c’u-an-s	*x-a-c’(w)-ew-
*a-x- ‘touch’	a-x-eb-s	o-x-u(n) ‘concerns’	*x-a-x-ew-

Primary *a-transitives cluster around the meanings of (1) building, setting up; (2) touching; (3) bringing into contact (e.g. flame to a candle, a brush dipped in paint).⁶ As will be shown below, the close link of the PRV to the roots of primary *a-√- verbs is apparent in the stative-passives and active participles formed from these roots, which also contain the PRV *a-.

b. Derived transitives and causatives. The most productive use of the prefix *a- is in derived transitives and causatives. It should be emphasized that the PRV in such verbs is not necessarily associated with the addition of an indirect object (M. Mach’avariani 1987: 87-115). The a-prefixed derivatives of monovalent verbs, nouns and other parts of speech are bivalent transitives without indirect objects: **a-c’ux-eb-s** “bothers, causes to worry” < c’ux-s “is worried”; **a-lamaz-eb-s** “beautifies” < lamaz- “beautiful”; **a-ortkl-eb-s** “makes evaporate” < ortkl- “steam”. Those derived from transitives are causatives with an indirect object denoting a second agent or instigator: **a-c’er-in-eb-s** “causes to write” < c’er-s; **a-č’m-ev-s** “feeds” < č’am-s “eats”. In most of these verbs, *a- is accompanied by the series marker (SM) *ew (G. -eb/-ew; M. -ap/-an).

⁶ What appears to be the PRV *a- also appears in the copular verb *a-r- (G. v-a-r, M. v-o-r-e-k, Sv. xw-ä-r-i “I am”; Deeters 1930: 73-74; Klimov 1998: 3; Fähnrich 2007: 336).

Table 8. Georgian and Mingrelian causatives

basic verb	Causative	Proto-Georgian-Zan
G dg-am-s “sets” M dg-un-s	G a-dg-en-s M o-dg-in-an-s	*x-a-dg-in/en-ew- “puts together”
G tb-eb-a “gets warm” M t’up-u-n	G a-tb-ob-s M o-t’ib-u-an-s	*x-a-t’p-aw-(in)-ew- “makes warm”
G tes-av-s “seeds” M tas-un-s	G a-tes-v-in-eb-s, M o-tas-ap-u-an-s	*x-a-tes-aw-(in)-ew- “causes sb to scatter seeds”

The strong resemblance between the morphology of derived transitives and that of primary *a-√- and superessive verbs is evidence of their common source in Proto-Kartvelian. More precisely, the emergence of the PRV *a- as a correlate of transitivity (G. Mach’avariani 1988) can be interpreted as the consequence of the metaphoric extension of the original meaning — action directed toward a target — to causation (an external agent causing a change of state, or influencing a second participant to act).

*c. Primary and derived statives with the “neutral” PRV *a-*. All Kartvelian languages have a few dozen or more stative verbs. Some of these are primary statives, that is, the basic verb form in which the root appears is a stative. Others are stative-passives, which are derived from transitive verbs. Primary statives are based on roots denoting physical or psychological states, static positions, etc., such as G. u-q’var-s, M. u-ʔor-s “loves”; G. Ø-ši-a, M. Ø-škir-en-s “is hungry”. As for some other verb times, primary statives can be divided into those that have no PRV, and those that have a lexically-specified PRV, either *a- or *i- (alternating with *u- in the 3rd-person).

In the following table are shown some primary statives with cognate stems in Georgian and one or the other Zan language. (Svan is left out, for reasons to be explained in §8). In most cases, the PRVs are cognate as well, either (i) Ø- in both branches, (ii) a reflex of *a-, or (iii) the objective version markers *i-/ *u-. Some statives, however, have *a- in Georgian and Ø in Zan, or vice-versa, which might reflect ancient vowel syncope associated with the position of the accent. A handful of Old Georgian verbs, in fact, have conjugations in which the PRV a- alternates with Ø, such as the stative verb denoting possession of an inanimate object –kon-. With a 3rd-singular suffix, the PRV is expressed and the root vowel undergoes syncope, whereas the inverse situation obtains with a 3pl suffix: 3sg x-a-kwn-s “has it” < *x-á-kon-s; 3pl x-Ø-kon-an “has them” < *x-a-kón-an (Chikobava 1959).

Table 9. Primary stative verbs with cognate roots in Georgian and Zan

	Georgian	Zan
	(i) no PRV	
“has [+animate]”	h-Ø-q'av-s	Ø-ʔun-s
“resembles”	h-Ø-gav-s	Ø-gun-s
“is hungry”	h-Ø-ši-a	Ø-škir-en-s
“loathes”	s-Ø-dzag-s	Ø-ʃog-u
	(ii) PRV *a-	
“lacks”	a-k'l-i-a	o-rk'-u-n
“remembers”	a-qsov-s	Ø-šun-s
“adorns”	h-Ø-šven-i-s	o-sk'-u-n
	(iii) PRV *i-/ *u-	
“loves”	u-q'var-s	u-ʔor-s
“is surprised”	u-k'vir-s	u-k'ven-s
“appears to sb”	u-čan-s “seems”	u-čku-n “knows”

Stative-passives typically denote a situation or state resulting from a past action. In Georgian, monovalent stative-passives (i.e. those without indirect objects) usually have no PRV, e.g. (s)-c'er-i-a “is written” < c'er-s “writes”; (s)-tes-i-a “is sown” < tes-av-s “sows”. Those derived from verbs with the non-applicative PRV a-, however, retain the same PRV in their monovalent stative-passives (Jorbenadze 1983: 63-4; M. Mach'avariani 1987: 12):

Table 10. Georgian transitives & monovalent stative passives with non-applicative a-

stative		transitive	agentive participle
a-bnev-ia	“is strewn, scattered”	a-bnev-s	OG gan=m-a-bnev-el-i “scattering”
a-gd-ia	“is thrown down”	a-gd-eb-s	OG gan=m-a-gd-eb-el-i “overthrowing”
a-nt-ia	“is lit”	a-nt-eb-s	OG m-a-nat-ob-el-i “illuminating”
a-sv-ia	“is affixed, stuck”	a-s-ob-s	da=m-a-s-ob-el-i “piercing”
a-sx-ia	“is spilled”	a-sx-am-s	gan=m-a-sx-m-el-i “expelling, driving out”
a-c'q'v-ia	“(many things) are laid out”	a-c'q'-ob-s	gan=m-a-c'q'-ob-el-i “arranging, configuring”

5.3. Participles containing the PRV *a-:

*a. Participles in *m-a-*. Reflexes of the prefixes *l- (> G. s-, M-Lz. Ø-, Sv. l-)⁷ and *m- are used in all the Kartvelian languages to form participles, and derive nominal from verb and noun

⁷ In order to account for the unusual sound correspondance G. /s/: Sv /l/: Zan /Ø/, Schmidt (1962: 78) and Fähnrich (2007: 20) reconstruct a lateral antecedent in the proto-language, such as the voiceless lateral spirant */l/. For the sake of convenience I will adopt this representation of the proto-phoneme, without committing myself to any particular reconstruction of its phonetic features.

stems. In many cases, a vowel occurs between the prefix and the root. In view of similarities in patterning and meaning, at least some of these vowels can be equated with the PRVs *a-, *i- and *e-. The prefix *m- appears in various types of participles, especially those designating agents. In combination with the PRV *a-, it forms participles of verbs whose “neutral” forms also contain the the PRV *a. In Georgian, m-a- forms the active participle of transitive verbs with “neutral version” a-: m-a-nat- “illuminating” < a-nat-eb-s “lights up”; m-a-dn-ob-el- “causer of melting” < a-dn-ob-s “melts” (Mach’avariani 1988). In Svan, m-a- forms the verbal noun of statives with PRV a-. There is little trace of *m-a- in Zan, with the exception of the lexeme *munt’ur-* “worm” (< *m-a-t’l-; Klimov 1998: 117).

Table 11. Georgian active participles in m-a-⁸

ACTIVE PARTICIPLE (m-a-√-)	“NEUTRAL VERSION” WITH PRV A-
/m-a-q’uč-/ “silencer”	a-q’uč-eb-s “stills, silences”
/m-a-nat-/ “illuminating”	a-nt-eb-s “lights”
/m-a-k-eb-el-, -ar-/ “laudatory”	a-k-eb-s “praises”
/m-a-xs-ov-ar-/ “remembering”	a-xs-ov-s “remembers”

Table 12. Svan verbal nouns in m-a-

participle (m-a-√-)	stative verb (non-ablauting)
m-a-lat’ “love”; ma-lt’-ār “loving”	x-a-lät’-(e) “loves”
m-ä-id “hunger”; mä-yd-ār “hungry”	x-ä-id “is hungry”
m-ä-sisg “hatred”	x-ä-sisg “hates”
m-a-c’əx- “need, lack”	x-a-c’əx- “needs, requires”
	stative verb (ablauting)
m-a-zwäb “(water) spring”	x-a-zwib “comes out (water, plant)”
m-a-päš “tiredness”	x-a-piš “is tired”
m-a-šq’äd “memory”	x-a-šq’id “remembers”

*b. Participles in *l-a-*. Kartvelian participles in *l-a- are less lexically selective than are those in *m-a-. Place-designating nouns can be formed from essentially any nominal, and the participles in *l-a-√-(el)- can be derived in principle from any active verb. Furthermore, neither type contrasts meaningfully with forms of similar morphology employing another PRV or Ø-. The two principal groups of participles in *l-a- are:

- (i) Nouns denoting places, many of which contain the locative suffixes *-o or *-e, e.g. G. s-a-kartvel-o “Georgia” < kartvel- “Georgian (person)”; G. s-a-bat’-e, Sv. l-a-bt’-īr “goose-pen” < bat’- “goose” (see also Fähnrich 2007: 721-2);

⁸ To be more precise, some Georgian participles in m-a- can undergo syncope of the PRV (cf. OGeo aṽ-m-a-šen-eb-el- “builder”, epithet of King David IV, and modern G m-šen-eb-el- “builder, construction worker”; whereas participles of PRV-less transitive verbs never appear with the prefix a- (m-c’er-el- “writer”, but not †m-a-c’er-el-; m-xvn-el- “ploughman”, but not †m-a-xvn-el-).

(ii) Purposive or instrumental substantives (“tool, substance) for X-ing”), which often include the participial suffix *-el-. These can be derived from almost any transitive or active intransitive verb root.⁹ For some roots, Georgian s-a-√- participles with and without *-el- have distinct meanings: G. s-a-s(w)-m-el- “beverage”, s-a-s(w)-m-i(s)- “drinking vessel” < *sw-am-; the Mingrelian (Ø)-o-š-um-al can denote either what one drinks or what one uses to drink.

Table 13. Participles in *l-a-√-

Kartvelian root	Georgian: s-a-√-(el)-	Zan: Ø-o-√-al/-u	Svan: l-a-√-
*-rt'q' “gird”	s-a-rt'q'-el- “belt”	o-rt'q'-ap-u	l-ā-rt'q'
*-q(a)n- “plough”	s-a-xn-av-/s-a-xvn-el- “arable land”	o-xon-al-	l-a-qän
*-b- “tie, bind”	s-a-b-am-/ s-a-b-m-el- “(rope) for tying”		l-a-b-äm
*-č'am- “eat”	s-a-č'm-el “food”	o-č'k'om-al-	
*-č'er- “write”	s-a-c'er- “(pen) for writing”	o-č'ar-al-	l-ä-yr-al-
*-q'war- “love”	s-a-q'var-el- “beloved”	o-?or-op-u	
*-vl- “go”	s-a-val- “(path) to be travelled”	o-l-u	

5.4. Deverbal nouns in *a- Vogt (1974) noted several examples of Georgian nouns which appear to comprise an a- prefix attached to a verbal root. Some are formed without addition of a suffix; others contain the passive participial suffix -il-, or the locative suffix -o. Note also that the verb roots contained in these nouns are transitive, and have meanings associated with placement or contact, especially when marked by the superessive PRV a-. Several of them are primary *a-transitives (e.g. a-xl-, a-lag-).

Table 14. Georgian nouns with frozen PRV a-

root	noun	verb
(1) a-√-Ø		
-lag-	a-lag- “place, position”	a-lag-eb-s “arranges”
(2) a-√-il-		
-dg-	a-dg-il- “place”	a-dg-am-s “puts on”
(3) a-√-o		
-ban-	a-ban-o “bathroom”	h-ban-s “washes”
-xl-	a-xl-o “near, close”	a-xl-eb-s “touches”
-sv-	a-s-o “(body) limb, member; letter”	a-sv-am-s “sets on, affixes”
-k'id-	a-k'id-o “string of fruit, grape bunch”	h-k'id-ebs “hangs on”

These vowel-prefixed derivations have long ceased to be productive. Possible instances outside of Georgian include M & Lz xolo “near; now”, if derived from an earlier *o-xol-o < *a-xl-

⁹ Some participles in *l-a- seem to contain stative roots, e.g. s-a-šin-el- “frightening”, s-a-q'var-el- “beloved”, but these are derived from the corresponding causatives: a-šin-eb-s “frightens”, a-q'var-eb-s “causes sb to feel love, affection”.

(Klimov 1998: 5); and the forms descended from PK *asul- “daughter” (G asul-, M-Lz osur-, Sv asuš-), if, as Klimov (1998: 4) surmised, this lexeme contained the prefix *a-.

6. The pre-radical vowel *i-. The other primary PRV is *i-. Like *a-, it appears in a diversity of contexts, including participles and nouns, but some coherence can be discerned in its range of uses. In the present-day Kartvelian languages, the PRV *i- can be associated with either the grammatical subject or an explicit or implied indirect object of the verb to which it is attached.

(i) *Subject-associated *i-*: In the case of medial verbs, as will be discussed below, the distinction between those which select the PRV *i-, and those which are unmarked, relates to the characteristics of the grammatical subject, and the role of the subject in the denoted activity: *i-medials typically denote attention-drawing or socially-situated acts performed by humans. These features are shared with certain types of *i-prefixed intransitive (passive/antipassive) verbs.

(ii) *Indirect-object-associated *i-*: As was illustrated at the beginning of this paper, the PRV *i- is the mark of “subjective” and “objective” version (alternating with *u- in the case of the latter). As described by Boeder (1968) and others (Harris 1981: 95-96; Lomashvili 2010: 191-196), both subjective and objective version refer to a type of indirect object. In its subjective-version use, *i- can be interpreted as a mark of an implicit reflexive indirect object, coreferent with the grammatical subject (as in example 1b). As an objective-version marker, the prefix *i- signals a 1st or 2nd-person indirect object, in contrast with the PRV *u-.

The range of contexts in which *i- appears overlaps to a considerable extent with the range of the “middle voice” in some Indo-European languages, as noted by Deeters (1930: 70); Shanidze (1953: 362-3), Schmidt (1965) and Lacroix (2009: 456-483). In this section, verb types with the PRV *i- in all three persons will be presented. Those with *i- following 1st and 2nd-person object markers only, contrasting with 3rd-person *u-, will be discussed in Section 7.

6.1. The PRV *i- as applicative marker: “Subjective version”. As described at the beginning of this article, one of the primary uses of the PRV is to signal “subjective version”. Although frequently contrasted to objective version (as in exs 1b-c-d, above), the PRV i- can signal “the reflexive counterpart of any indirect object. In this sense it neutralises the opposition between objective version, superessive version and unspecified indirect objecthood” (Boeder 2005; see also Aronson 1982; Boeder 2019). Furthermore, when contrasted with the latter types of verbs, verbs in the subjective version have lower valence, in that an implied reflexive indirect object (“for/to/on oneself”) replaces an overt one.

Table 15. Trivalent transitives and subjective-version counterparts

	trivalent transitive with IO	bivalent transitive in “subjective version”
i-/u- (ObjV)	G u -c'er-s “writes sthg for someone ” M u -č'ar-un-s Sv x- o -yr-en-i	G i -c'er-s “writes sthg for oneself ” M i -č'ar-un-s Sv i -yr-en-i
a- (SuperV)	G a -glej-s “tears sthg off sb/sthg ” M o -sop-un-s Sv x- ä -gl-e	G i -glej-s “tears sthg off oneself ” M i -sop-un-s Sv i -gl-e
no PRV	G s- Ø -r-i-s “cuts sb's (body part)” M Ø -k'vat-un-s Sv ———	G i -č'r-i-s “cuts one's own (body part)” M i -k'vat-un-s Sv ———

Shanidze (1953: 338) listed a handful of trivalent PRV-less transitives which have contrasting i- prefixed forms that are not so much reflexive as simply bivalent. That is, for these verbs the addition of the PRV i- appears to signal the suppression of the indirect object, rather than its replacement by an implicit reflexive. The likely explanation is that such verbs once had an implied reflexive (mo-i-p'ar-a “stole sthg for oneself”; i-txov-a “requested sthg for oneself”), which ceased to be perceived as such due to its redundancy or a shift in meaning of the verb.

Table 16. PRV i- and suppression of the indirect object (Georgian examples).

PRV-less trivalent transitive with IO	bivalent transitive in “subjective version”
h- Ø -k'itx-a “asked sb sthg”	i-k'itx-a “asked sthg”
s- Ø -txov-a “requested sthg from sb ”	i-txov-a “requested sthg”
mo-h- Ø -p'ar-a “stole sthg from sb ”	mo-i-p'ar-a “stole sthg”

In his 1936 grammar of Laz, Chikobava (1936/2008: 119-121) stated that use of the subjective version was limited to situations where the referent of the grammatical subject acted on his/her own body; in other words, one could characterize the PRV i- as a reflexive superessive marker in these contexts. Whereas Georgian *i*-c'er-s usually means “writes (down) for oneself” (e.g. takes notes, records something), its Laz cognate *i*-č'ar-up-s, according to Chikobava's informants, “would be used if one started to write on one's own body, and who would ever do that?” (Chikobava 1936/2008: 120). Lacroix's data, collected from contemporary Laz speakers in Turkey, mostly corroborate Chikobava's observation, although in some examples, the subjective version is associated with action on an object possessed or worn by the subject; e.g. k'oči-k araba d-**i**-čx-u (man-ERG car PV-Vi-wash-S3sg) “L'homme a lavé **sa voiture**.” (Lacroix 2009: 466-7). Chikobava surmised that the Laz distribution of subjective version might be a vestige of the state of affairs in Proto-Kartvelian, but since the closely-related Mingrelian does

not have a comparable restriction on the use of the subjective version, it is most likely the case that the Laz distribution represents an innovation.

6.2. Verbs with non-applicative (“neutral version”) PRV *i-:

*a. Primary medial verbs with *i-.* All Kartvelian languages have a large and probably open category of “medial” or “medioactive” verbs (Shanidze 1953: 314-5; Nozadze 1974; Holisky 1981). These are defined formally by their paradigms (future and aorist tenses either lacking, or “borrowed” from other verb types); and semantically by their atelic aspect and hybrid nature with respect to transitivity: Most medial verbs rarely or never take a direct object, but their other morphosyntactic characteristics — notably, the assignment of ergative case to their subjects — are shared with transitive verbs (e.g. G c’q’al-ma i-duy-a; Sv. lic-d lä-y-pu-e “(the) water-ERG boiled”). Kartvelian medials typically denote activities without a specified endpoint, such as dancing, playing, swimming, etc.; or the production of sound, movement or visual effects (G. livliv-eb-s “sensation of light waves on water and sunbeams playing off them”; rat’rat’-eb-s “talk or walk in a stupid way”; Holisky 1981: 104). In each Kartvelian language some, but not all, medial verbs have a lexically-specified PRV *i-, which appears in present/imperfect-series as well as aorist-series paradigms.¹⁰ Nozadze (1974: 36-37) believed that all medials once had this PRV, whereas Schmidt (1965) considered the presence of the PRV *i- in medial verbs to be the result of analogical extension from the subjective version of transitives. One notes, however, that *i-medials, in all Kartvelian languages, share certain semantic features, which distinguish them as a group from unprefixmed medials, whereas the large class of non-prefixed medials is more diverse, including many which only take inanimate subjects (cf. the somewhat different interpretation proposed by M. Mach’avariani 1987: 45-46). Typical medials with the PRV *i- denote vocal, verbal or facial displays or actions performed by human agents, usually with an implied social context (Table 17, data from Melikishvili 2013):

Table 17. *i-prefixed medials in Kartvelian

MEANING	Early Georgian	Svan	Mingrelian
“keens, weeps”	x-i-t’q’eb-s	i-gwn-i	i-ngar-s
“rejoices”	x-i-xar-eb-s	i-xīd-e	i-xer-en-s
“fasts”	x-i-marxav-s	i-lč’wm-i	i-p’ičvan-s
“prays”	x-i-locav-s	i-mzir	i-xvaman-s
“smiles”	(x)-i-cin-i-s	ī-cwn-āl	i-dzic-an-s
“sings”	(x)-i-myer-s (also “plays, taunts”)	i-yr-āl	i-bir-s

¹⁰ These are to be distinguished from the far larger number of medial verbs which have the i- prefix in the aorist series only (e.g. G. duy-s “boils”; aor. i-duy-a).

b. Primary transitives with *i-. Shanidze (1953: 357-9) described a subclass of transitive verbs which appears in the “subjective” and “objective” versions, but which do not have a “neutral” form (either without a PRV, or with the PRV a- but lacking an indirect object). As analyzed by Shanidze, the verbs in i- represent the neutral version. In semantic terms, most of the transitive verbs with neutral *i- can be assigned to one or the other of two groups: (i) appropriation (-č'er- “catch”, -p'q'r- “seize”, -t'an- “carry off”; Sv -z(w)b- “eat”, -tr- “drink”); or (ii) cognition (-g- “understand”, -c'on- “like”, -c'un- “dislike”, -nax- “see, notice”). That is, the basic meaning of these transitives includes an orientation toward the subject, in a more or less metaphoric sense.¹¹

Table 18. Kartvelian verbs with primary PRV *i-

	“neutral”	“subjective”	“objective”
begin	G. —	i-c'q'-eb-s “begins”	u-c'q'-eb-s “begins for sb”
	M. —	i-č'q'-an-s	u-č'q'-an-s
	Sv. —	i-bn-e	x-o-bn-e
take	G. —	i-γ-eb-s “takes”	u-γ-eb-s “takes for sb”
	Sv. —	i-k'ed	x-o-k'ed “takes for/from sb”
catch	G. —	i-č'er-s “catches, seizes”	u-č'er-s “catches for sb”
	Sv. —	i-rm-i	x-o-rm-i

c. prefixal intransitives (passives and deponents). As defined by Shanidze (1953: 455-484), the Georgian passive voice (*vnebiti gvari*) is expressed through four verb types: three types of dynamic (*dinamik'uri*) passive, alongside the stative (*st'at'ik'uri*) passive. In the case of root (ablauting) intransitives, and those marked by the suffix -d- (which only occur in Georgian and Zan), there is no indication that these could be characterized as passives in the strict sense, that is, as intransitive verb forms derived from more basic transitives. For many root intransitives, the opposite appears to be the case.

Table 19. Georgian intransitive verb types

	root	intransitive	transitive
root	tb- “warm”	tb-eb-a “becomes warm”	a-tb-ob-s “makes warm”
d-suffixed	grdzel- “long”	grdzel-d-eb-a “becomes long”	a-grdzel-eb-s “lengthens”
prefixal	dg- “put, set”	i-dg-m-eb-a/ i-dg-m-i-s “is set, installed” e-dg-m-eb-a/ e-dg-m-i-s “is set on/upon”	dg-am-s “puts, sets”
stative	c'er- “write”	s-c'er-i-a “is written”	c'er-s “writes”

¹¹ Gérardin (2016) describes a class of Georgian verbs in i- which share traits with both i-medial and i-transitives. These “verbes d’installation” describe a change of position or psychological state, and rarely take a direct object (e.g. i-zamtr-eb-s “spends the winter”; i-dzin-eb-s “goes to sleep”). The subjects are animate, except in metaphorical usage.

Prefixal and stative passives, by contrast, are clearly derived from their transitive counterparts. Both types of passive have special suffixes (-i in (Old) Georgian, -i and -a in Svan, -u and -e in Zan), and the prefixal passives include the PRVs *i- or *e-.

Table 20. Stative-passives and prefixal intransitives

	transitive	stative-passive	prefixal intransitive
Georgian	tes-av-s “sows (seed)”	s-tes-i-a “is sown”	i-tes-eb-a “is being sown”
Mingrelian	tas-un-s	tas-u-(n)	i-tas-u-u-(n)
Svan	a-lāš-i	x-a-lāš-a	i-lāš-i
Georgian	a-b-am-s “ties, binds”	a-b-i-a “is bound”	i-b-m-eb-a “is being tied up”
Mingrelian	o-b-un-u-an-s	o-b-u-(n)	i-b-un-u-u-(n)
Svan	a-b-em	x-ā-b	i-b-m-i

Less often noted is the use of the same morphology by so-called “deponents”, in which the agent is foregrounded, rather than the patient. Some such verbs only have deponent interpretations, e.g. i-q’ep-eb-a “barks repeatedly, irritatingly; has the habit of barking” < q’ep-s “barks”. Others allow both passive and deponent readings, e.g. i-yeč’-eb-a (i) [passive] ‘can be chewed’; (ii) [deponent] ‘chews (food, gum) in a leisurely, annoying or attention-getting manner’ < yeč’-av-s “chews, ruminates” (Tuite 2002). Deponents are attested in Georgian from the earliest texts; e.g. xolo uk’uetu urtiertas **i-k’bin-eb-od-e-t** da še-**i-č’am-eb-od-e-t** “But if ye bite and devour one another” (Galatians 5: 15). Similar deponents occur in Mingrelian (where they are less numerous than in Georgian), and Svan (where they form a large, probably open, class).

The PRV *i- in intransitive verbs such as i-c’er-eb-a “is being written”, i-mal-eb-a “hides oneself”, etc.; and the PRV *e- in their bivalent counterparts (e-c’er-eb-a “is being written on/for”, e-mal-eb-a “hides from”); are commonly said to be marks of the passive voice. Comparison of *i-/e-prefixed intransitives to other intransitive verb types, however, shows that it is rather the suffixal morphology that sets them apart from transitives. In Georgian, the suffix -i- appears in the present-series stems of all four types of intransitive verb shown in the following table (Jorbenadze 1983: 184). Cognate suffixes also appear in Svan and Mingrelian, but in alternation with the suffix *-aw-. (In Mingrelian, intransitives in -e- < *i- have potentialis meaning, e.g. i-tas-e-n “it can be sown”, whereas those in -u- < *-aw- are regular passives). Traces of *-aw- are found in Georgian, within the intransitive imperfect stem (i-tes-eb-o-d-a “was being sown” < *-eb-aw-d-a).

Table 21. Suffixal morphology of intransitives

	Old Georgian	Mingrelian	Svan
prefixal pass/dep	i-tes-eb-i-s “is being sown” < *i-	i-tas-e-n < *i- i-tas-(u)-u-n < *-aw	i-lāš-i < *i-
root intransitive	c’q’d-eb-i-s “breaks”	č’q’ord-u-n	šq’ed-(e)n-i < *i-
d-suffixed	q’vitl-d-eb-i-s “turns yellow”	ʔviton-d-u-n	—
stative-passive	s-tes-i-e-s “is sown”	tas-u-n < *-aw	x-a-lāš-a < *-aw

If the suffixal morphology is shared with other intransitive conjugations, where do the prefixes come from? I will put forth the hypothesis that *i-/e- intransitives originated as hybrid verb forms, with the PRVs of *i- prefixed medials, such as those discussed above, and the suffixes of intransitives. In particular, these were initially medials derived from transitive verb roots, by affixation of the PRVs *i- or *e-, according to the absence or presence of an indirect object, and suffixes which shifted the verb from the transitive (ergative-case assigning) to intransitive morphosyntactic class. The clearest evidence in favor of my reconstruction comes from the above-mentioned deponents, which occur in all Kartvelian languages, and are far from rare, especially in Georgian and Svan. There is an evident continuity of meaning between *i-/e- prefixed medials as a class and *i-/e- prefixed deponents: Both verb types typically describe human subjects acting in an attention-getting way. Because deponents contrast with unmarked transitives, the attention-getting-ness of the subject's behavior is foregrounded, especially when it is perceived as excessive, unseemly or irritating. In order to take advantage of the semantic entailments of deponents, their morphology has been even been extended to intransitive medial verbs, e.g. alongside the medial q’ep-s “barks”, one has the option of deploying the deponent i-q’ep-eb-a “barks repeatedly, irritatingly; has the habit of barking” (Tuite 2002). Medials and deponents also tend to be aspectually imperfective (a characteristic deponents share with antipassive constructions in other languages), and both categories contain verbs which are rarely or never used in the perfective tenses. If my hypothesis concerning the origin of prefixal intransitives is substantially correct, then the deponent reading would have been available from the beginning. It might in fact have been the original interpretation of prefixal intransitive morphology, or, as Jorbenadze (1983: 136) surmised, the choice of passive or antipassive reading might have been triggered by the animacy of the grammatical subject. The intransitive *i-c’er-eb-a* < c’er-s “writes” with an inanimate argument would have been interpreted as a passive (“the letter is being written”), whereas with a human argument it would have been understood as a deponent antipassive:

- (4) megobar-i sopli-dan k’arg amb-eb-s i-c’er-eb-od-a
 friend-NOM village-from good new-s-DAT PRV-write-SM-IMP-S3sg
 “the friend was (regularly) writing good news from the village” (Jorbenadze 1983: 136).

Finally mention must be made of the curious and much-discussed fact that in the oldest Georgian texts, *i*-prefixed intransitives were preceded by the same prefix /x-/ as marked 3rd-person dative-case objects with other verbs, e.g.

- (5) q’[ove]l-i cexl-ita da-x-i-maril-o-s
 all-NOM fire-INST Pv-O3?-V-salt-OPT-S3sg
 “All will be salted with fire” (Mark 9: 49; Xanmet’i)

One possible explanation is that the O3 prefix refers to the argument demoted by the intransitivization operation (Tuite 1990). Jorbenadze (1983: 137) noted that *i*-medials, which are usually intransitive, also had the *x*-prefix, as shown in the table in §6.2.a above. The object prefix might have indexed potential or redundant direct objects with *i*-medials, e.g. *x-i-locav-s* “prays (a prayer)”, *x-i-myer-s* “sings (a song)”, etc., a usage which was then carried over into what were initially, according to my hypothesis, medials derived from transitive verb roots. Note that some deponents can take dative objects, as does *i-c’er-eb-od-a* in the example above.

6.3. Participles containing the PRV *i- The prefix **l*-*i*- is composed of the participial formant **l*- (G. *s-*, M-Lz. *Ø-*, Sv. *l-*) and the PRV **i*-. Useful information concerning its original distribution can only be gleaned from Georgian. The Zan cognate of **l*-*i*- seems to have all but vanished, its last trace persisting in Laz *Ø-i-zmoj-e* “dream” (< **l*-*i*-*zmar-*; cf. G. *s-i-zmar-*; Klimov 1998: 177). In Svan, by contrast, this prefix is productively used to form nouns from verbal roots of all types, e.g. *l-i-g-em* “building” < *-g-em* “build”; *l-i-šg-wir* “shame” < *x-o-šgur* “is ashamed”; *l-i-sed* “remaining” < *sed-n-i* “remains” (Topuria 1967: 211; Fähnrich 2007: 723). The Georgian cognate *s-i-*, combined with the suffix *-e* or *-o*, appears in abstract nouns formed from root intransitives and adjectives (*s-i-cx-e* “heat, fever” < *cx-eb-a* “become hot”; *s-i-lb-o* “softness” < *lb-eb-a* “become soft”; *s-i-lamaz-e* “beauty” < *lamaz-* “beautiful”; Mart’irosovi 1958). With the suffix *-a* it forms nouns from a small number of **i*-prefixed medial verbs (*s-i-t’q’w-a* “word” < *i-t’q’w-* “speak”; *s-i-myer-a* “song” < *i-myer-* “sing”; Chikobava 1942/2013: 225-6).

The same prefix conjoined with the participial suffix *-il/-ul* appears in verbal nouns derived from some **i*-medials (*s-i-ar-ul-* “going, walking” < *i-ar-* “go”; *s-i-kad-ul-* “bragging” < *i-kad-i-s* “brags”); and also in nouns based on roots which appear in both primary-stative verbs and PRV *i*-prefixed transitives (*s-i-q’var-ul-* “love”, cf. *u-q’var-s* “love”, *i-q’var-eb-s* “falls in love with”; *s-i-*

xar-ul- “joy”, cf. u-xar-i-a “is happy”, i-xar-eb-s “rejoices”; Shanidze 1953: 582-3; Nozadze 1974; Chikobava 1942/2013: 228-9). In Georgian, the participial formant s-i-√il/-ul- contrasts with the unprefixd √il/-ul-. As shown in the following table, the unprefixd verbal noun is formed from medial and stative verbs which lack the PRV i-. The verbal noun in s-i-√il/-ul-, on the other hand, is for the most part based on i-medial verb roots, and stative verbs with the objective-version PRVs i-/u-:

Table 22. Georgian verbal nouns in -il/-ul

	Without prefix: √il/-ul-		With prefix: s-i-√il/-ul-	
medial	duy-s “boils” kux-s “thunders” k’nav-i-s “miaows”	duy-il- “boiling” kux-il- k’nav-il-	rb-i-s/i-rb-en-s “runs” i-ar-eb-i-s “goes” i-cin-i-s “smiles”	s-i-rb-il- “running” s-i-ar-ul- s-i-c-il-
stative	s-c’q’ur-i-s “thirsts” s-t’k’iv-a “hurts” s-dzin-av-s “sleeps”	c’q’ur-v-il- “thirst” t’k’iv-il- dz-il-	u-q’var-s “loves” u-xar-i-s “rejoices” s-dzul-s “hates”	s-i-q’var-ul- “love” s-i-xar-ul- s-i-dzul-v-il-
root intrans.			k’vd-eb-a “dies”	s-i-k’vd-il- “death”

6.4. Deverbal nouns in *i-. As with *a-, the prefix *i- appears in a handful of nouns, preceding a root which appears to be of verbal origin (Vogt 1974). Some such nouns have no other affixes, others take the participial suffix *-al/-ar. The choice of suffix might be related to transitivity, since the suffixless i-√- nouns tend to be based on intransitive verbs, and those in i-√-al/ar contain transitive roots. Most of the known i- prefixed nouns are only attested in Georgian. The stem *i-sar- “arrow” < *s(a)r- “shoot, throw” can, however, be reconstructed at the Georgian-Zan level (Klimov 1998: 80; Fähnrich 2007: 210), and one likely candidate occurs in Svan: i-rek’ “rafters supporting roof” < -rek’- “hang”. In these nouns, the vowel prefix seems to have intransitivizing, passivizing force (*i-sar- “is shot/thrown”; i-rek’ “is hung”).¹²

Table 23. Georgian deverbal nouns in *i-

(1) i-√-Ø	verb
i-gav- “parable, fable, riddle” (“it resembles”)	h-gav-s “resembles”
i-sxlet’ / i-sxert’ “bird trap”	sxlt’-eb-a “slips”
i-k’ank’el- “zigzag line” (“it shivers”)	k’ank’al-eb-s “shivers”
(2) i-√-al/ar-	
i-dum-al- “secret, unspoken” (“is kept silent”)	dum-s “is silent”, a-dum-eb-s “silences”
i-yun-al “crooked(ly)” (“is bent”)	yun-av-s “bends”
i-sx-ar “sudden downpour” (“is poured”)	a-sx-am-s “pours”
i-pk-l- “autumn-sown wheat” (“is ground into flour”)	pkv-av-s “grinds”

¹² A seemingly identical prefix i- also appears in a small set of Georgian adverbs, which usually include the ancient instrumental suffix -iv, e.g. i-rgvl-iv “around” < rgol- “ring, loop”; i-bed-iv “by chance” < bed- “fate”. Jorbenadze (1983: 206) mentions them in connection with the PRV i-, but as the adverbs in i-√-iv are only formed from noun stems, it is not clear to me that the two prefixes are in fact related.

7. The secondary “version vowels” *u- and *e-. Though both *u- and *e- are described as allomorphs of the PRV *i-, the contexts in which they appear, and the nature of their respective oppositions to *i-, are very different. The set of verbs which take the PRV *u- does not overlap with the set that takes *e-, except in Svan (§8.4).

*e- is APPLICATIVE: it marks the addition of a dative-case argument to an *i-medial or *i-intransitive verb, for which the PRV *i- is associated with the nominative-case argument (grammatical subject): i-cin-i-s "laughs" > e-cin-i-s "laughs at her/him/them".

*u- is EXTROVERT, that is, it marks a 3rd-person non-reflexive argument, for two types of verbs for which the PRV *i- is linked to a dative-case argument (formally, the indirect object):

1. bivalent stative verbs, for which the indirect object is an inherent component of their argument structure, e.g. m-i-q'var-s "I love sb/sthg", u-q'var-s "she/he loves sb/sthg" (for such verbs, the indirect object has the syntactic attributes of a subject);
2. transitive, intransitive and stative verbs in Objective Version, for which an overt or implicit indirect-object is added to the basic argument structure: q'ana-s xn-av-s "ploughs the field" > q'ana-s m-i-xn-av-s "ploughs the field for me", q'ana-s u-xn-av-s "ploughs the field for her/him/them".

7.1. *u- and “objective version”. With the exception of comparatives and superlatives, discussed below, the PRV *u- (G-Z u-, Sv. o-) is associated with certain types of dative-case arguments, but only with a 3rd-person indirect object. Should the object be in the 1st or 2nd person, the PRV *i- follows the object markers, as was mentioned in §2.3. above. The *i-/u- allomorphy is associated with “objective version”. The PRVs O1,2 *i-/O3 *u- appear on verbs with added indirect objects. These typically denote beneficiaries of the action, but can also have adessive/allative meaning (e.g. mi-u-ǰd-a “sat next to sb”; Boeder 2019). Certain primary statives are marked for lexically-specified “objective version”, even though they are in fact version-less:

Table 24. PRVs *i- and *u- with beneficiary indirect objects (“objective version”)

	Georgian	Mingrelian	Svan	
O1sg	m-i-qn-av-s	m-i-xon-un-s	m-i-qn-i	“ploughs (field, etc.) <u>for me</u> ”
O2	g-i-qn-av-s	g-i-xon-un-s	ǰ-i-qn-i	“ploughs (field, etc.) <u>for you</u> ”
O3	(x)-u-qn-av-s	u-xon-un-s	x-o-qn-i	“ploughs (field, etc.) <u>for her/him/them</u> ”

Table 25. PRVs *i- and *u- with primary stative verbs

	Georgian	Laz	Svan	
O1sg	m-i-n-d-a	m-i-n-o-n	m-i-n-i	“I want/desire it”
O2	m-i-n-d-a	g-i-n-o-n	ǰ-i-n-i	“You want/desire it”
O3	(x)-u-n-d-a	u-n-o-n	x-o-n-i	“He/she wants/desires it”

The prefix *u- has been defined as a portmanteau morpheme combining the 3rd-person object prefix *x- and the PRV *i- (Boeder 1968: 96-97; Harris 1981: 90). This account is problematic on phonological grounds, since there is no independent evidence elsewhere in Kartvelian for the sound change /xi/ > /u/. Furthermore, the sequence O3 x- + PRV i- does in fact occur in Early Georgian, e.g. x-i-txov-d-es “they asked for it” (Luke 11: 16), as does the PRV u-, e.g. x-u-k’wir-d-a “(the words) surprised them” (Luke 2: 18). A novel solution was proposed by Maia Mach’avariani (1980; 1987: 54), who redefined Shanidze’s subjective and objective version categories to fit the actual distribution of the vowels. The contexts where *i- appears correspond to what she labels “introversion” (1980: 51), that is, orientation of the action toward a two-layered deictic center englobing the participants constituting the speech-act (1st- and 2nd-person), as well as the grammatical subject of the utterance (see also the somewhat different explanation offered by Jorbenadze 1983: 115-22).¹³ The *u-prefix, by contrast, signals “extraversion”.¹⁴

a. Primary statives in “objective version”. As was pointed out in §5.2(c), some primary stative verbs have a lexically-specified PRV, others have no PRV. A sizeable minority of statives have the “objective version” prefixes *i-/u-. These cluster in the semantic fields of cognition and positive emotions, whereas the primary statives in Ø- or *a-, on the whole, denote psycho-

¹³ The distribution of the PRV *i-, as marker of “introversion”, finds an interesting parallel in the Munda language Gorum. According to Anderson and Gurevich (2005), the creaky-voice feature they associate with “subject version” ... “may likewise mark action primarily affecting a (deictic/speech-act participant) non-subject”, that is, an object in the 1st or 2nd person.

¹⁴ Mach’avariani’s intro-/extra-version contrast resembles Silverstein’s (1976) distinction between *indexical presupposition* and *indexical creativity* (or *performativity*). The first of these terms applies to linguistic forms which presuppose the presence of certain features or participants in the speech or narrative contexts (Jakobson’s E^s and Eⁿ, respectively). The prefix *i- is presupposing in Silverstein’s sense, in that its “objective version” use is associated with the 1st- and 2nd-persons, i.e. the speaker and the hearer, whose presence is presumed by the very act of speaking; whereas its “subjective version” use indexes the grammatical subject of the sentence being uttered. Indexically creative forms, on the other hand, transform their contexts of use when deployed in speech; in Silverstein’s words, they are “the very medium through which the relevant aspect of the context is made to ‘exist’” (1976: 34). In contrast to *i-, the *u-prefix is transformative in this sense, marking the addition of an indirect object argument over and above the participants in the speech act, and the arguments in the basic thematic structure of the verb being uttered. (A simple example to explain these concepts: The utterance “Mary prepares dinner”, by the mere fact of its being uttered, makes the speaker and addressee of the sentence, as well as “Mary”, into presupposable referents. The “introvert” PRV *i- signals that one of these referents is the beneficiary of Mary’s dinner-making, whereas the “extravert” prefix *u- entails the addition of an argument beyond this group).

physiological states, negative emotions and possession (cf. M. Mach’avariani 1987: 33-34). In Georgian, some of these statives form their verbal nouns in s-i-√- (§6.3).

Table 26. Cognate primary stative verbs in Kartvelian

meaning	Georgian	Zan	Svan
“desires”	u-n-eb-s	u-n-on	x-o-n-i
“knows”	(u-čn-s)	u-čk-u	—
“loves”	u-q’var-s	u-ʔor-s	—
“surprises”	u-k’vir-s	u-k’ven-s	—
“prefers”	—	u-sx-un-u	x-o-cx-a

b. Comparative/superlative degree of adjectives. In Georgian and Mingrelian, the superlative degree of adjectives and adverbs formed by means of the circumfix *u-√-eš (G. u-√-es, M. u-√-aš; e.g. G. u-t’k’b(il)-es-, M. u-ham-aš- “sweetest”). In Svan, the prefix -o-, which corresponds to the Georgian-Zan PRV u-, is used to form the comparative degree. This semantic discrepancy between Svan and Georgian-Zan can be resolved in favor of the former by adding evidence from the oldest variety of Old Georgian, the so-called “Xanmet’i” dialect attested in the earliest texts (Sarjveladze 1971; Tuite 2004; Gippert 2009). The Early Georgian forms corresponding to modern Georgian superlatives had comparative meaning; they also had an O3 /x-/ prefix in front of the initial vowel, as does Svan:

- (6) **x-u-t’k’bil-ē-(e)s** x-i-q’-o **x-u-pr-o-(e)s** tapl-isa
 O3-V-sweet-DER-CMP O3-PRV-be-Aor.3sg O3-V-much-DER-CMP honey-GEN
 “it was sweeter, more than honey” (Martyrdom of St Christina 2:8; c. 6th c.)

The morphology of the Svan and Early Georgian comparatives also bears a very close resemblance to that of stative-passives in the objective version, as in Table 27:

Table 27. Comparatives and stative-passives (Svan and Early Georgian)

	Svan	Early Georgian
sweet	muč’xwi	t’k’bil-
sweeter	x-o-mč’uxw-a	x-u-t’k’bil-ēs-
many	pišir	mraval-
more	x-o-pšir-a	x-u-mravl-ēs-
<i>stative-passive</i>		
is written for sb	x-o-yr-a	x-u-c’er-i-es

It has been hypothesized that Kartvelian comparatives were once marked for person, with Set O prefixes crossreferencing the object of comparison (Schanidse 1982: 63; Jorbenadze 1983: 177-

80; M. Mach’avariani 1987: 49–50; Tuite 1990). At an early stage, possibly even before the separation of Svan from the ancestral speech community, the O3 prefix followed by the PRV *u- underwent reanalysis as part of a circumfix forming the comparative degree of adjectives. For example, the form uxuces- “elder”, attested in the oldest manuscripts, apparently resulted from the (re)application of the prefix u- to the stem x-u-c-(es)- (also attested), itself a comparative from the root –c- “be older”; cf. Svan x-o-š-a, M. u-č-aš “elder” (Klimov 1998: 269, 332–3).

7.2. *e-: In most cases, the prefix *e- (> G, Sv e-; Zan a-) indicates the addition of an indirect object to the two types of *i-prefixed intransitive verbs: prefixal passive/deponents, and *i-prefixed medial verbs.¹⁵

a. e-prefixed passives. The following citation from the Early Georgian translation of Matthew 7:8 contains the e-prefixed permansive of the passive /x-i-γ-eb-i-s/ “is being opened”. The e-prefix is associated with the addition of an indirect object (denoting the one for whom the door is opened):

- (7) romel-i x-i-rek'-n gan=x-e-γ-i-s
 who-NOM O3-PRV-knock-Iter.S3sg Pv-O3-PRV-open-PERM-S3sg
 “whoever knocks, it (door) will be opened to her/him”

The distinction among a-prefixal, i-/u-prefixal, and PRV-less indirect object marking is neutralized for this verb type. In principle, the e-prefix can be associated with superessive, beneficiary or other types of indirect objects. Based on a survey of e-prefixed intransitives in the 8-volume Georgian Explanatory Dictionary, Jorbenadze (1983: 122–128) observed that the indirect objects signalled by the PRV e- are rarely beneficiary or possessive, that is, they rarely correspond to objective version in transitives. Examples of beneficiary e-, such as the gospel translation above, or the oft-cited grammatical illustration e-c'er-eb-a “is written to/for sb”, are, in Jorbenadze's opinion, relatively uncommon, or the unnatural creations of grammarians. In Svan as well, the typical indirect object of an e-intransitive corresponds to an experiencer (often

¹⁵ In addition to the verbs discussed in this section, the vowel prefix e- also appears precedes the Georgian root –c- “give”, but only in a handful of forms: aorists with a 1st or 2nd-person subject and a singular direct object; e.g. mo=m-e-c-(i) “you gave it to me”; mi=v-e-c-(i) “I gave it to him/her/them”. All other forms of this verb in Georgian, as well as all forms of its Mingrelian and Laz cognate –č-, lack a PRV (e.g. Laz ko-mo=m-Ø-č-i “you gave it to me”; Lacroix 2009: 218). Some authors cite this as evidence that the PRV *e- once was used with transitive verbs (Kavtaradze 1954: 309). Shanidze (1976: 550–1) wondered if the /e/ could have originally been part of the root. Another possibility (which I favor) is that this verb originally took the PRV *a-, which underwent umlaut to /e/ under the influence of the past-tense suffix –i: m-e-c-i “you gave it to me” < *m-a-c-i; cf. the Old Georgian imperfect S1 v-k'levd < *v-k'l-av-d-i. Taking into consideration the lack of any trace of a PRV, either *a- or *e-, in the Zan cognates, I will leave the question of the e-prefix in the Georgian verb “give” open for the time being.

functioning as syntactic subject, e.g. G. m-e-č’m-ev-a, M. m-a-č’k’om-u-n “I can eat it”), a possessor or a superessive. Alongside *e-intransitives derived from transitive verb stems are dative-subject verbs formed productively from noun and adjective stems, indicating desire or perception (Shanidze 1953: 299-301). Some typical examples from Georgian are: m-e-mc’ar-eb-a “it seems/tastes bitter to me” < mc’ar- “bitter”; m-e-šok’olad-eb-a “I crave chocolate”.

b. e-prefixed deponents. Deponents with the PRV e-, which signals the addition of an indirect object, are also attested in the Old Georgian corpus, e.g. g-e-vedr-eb-i, upalo “I beg you, Lord!” (Genesis 19: 18). The most productive type of e-prefixed deponent in modern Georgian is the comitative, the bivalent counterpart to some medial verbs, e.g. e-tamaš-eb-a “plays with” < tamaš-ob-s “plays” (Jorbenadze 1983: 95-6; Rostovtsev-Popiel 2016); e-prefixed comitatives are also common in Svan (Topuria 1967: 180-1).

c. e-prefixed medials. Corresponding to medial verbs with a lexically-specified i-prefix are e-prefixed medials designating acts directed toward an indirect object, e.g. G. e-glov-s, M. a-ngar-s “mourns for sb”; Sv. x-e-töp “shoots (gun) at sb”.

Table 28. Old Georgian medial verbs with PRVs i- and e-

i-glov-s “mourns”	e-glov-s “mourns for sb”
i-t’q’eb-s “keens”	e-t’q’eb-s “keens over sb”
i-myer-(i)-s “sings, dances”	e-myer-(i)-s “sings to; taunts”
i-vlt’-i-s “flees, runs away”	e-vlt’-i-s “avoids, flees from”
i-cin-i-s “laughs”	e-cin-i-s “mocks, laughs at sb”

(8) x-e-k’icx-ev-d-e-n mas da t’anž-o-n igi
 O3-PRV-mock-SM-IMP-CONJ-S3sg him:DAT and torment-CONJ-S3pl him:NOM
 “they shall mock him and torment him” [Mk 10: 34]

d. Participles containing the PRV *e-. Participles in *l-e- and *m-e- have intransitive meaning, either passive or medial. Reflexes of the prefix *l-e- are only attested in Svan, where it forms future passive participles, such as l-e-zweb “food” (lit. “what is to be eaten”) < zweb- “eat”; l-e-g-em “to be built” < g-em- “build”. The prefix *m-e- appears in all Kartvelian languages, as the formant of the active participles of i-prefixed medial verbs, that is, the class of medioactive verbs which have a lexically-specified PRV *i- and/or *e- (§6.2.c):¹⁶

¹⁶ Chikobava (1942/2013: 235) cites the hapax legomenon m-e-glov-a- “mourning”, which he compares to e-glov-s. No other Georgian deverbal nouns in m-e-√-a are known. This formation appears to be cognate to M. m-a-√-u (m-a-√-vint-o-u- “drowsy” < √vint-an-s “dozes”).

Table 29. Kartvelian participles in *m-e- formed from *i-/e-medial verbs.

	*i-prefixed medial	*e-prefixed medial	active participle in *m-e-
Georgian	i-t'q'v-i-s “will say”	e-t'q'v-i-s “will say to sb”	m-e-t'q'v-el- “speaking”
	—	e-k'icx-ev-s “mocks”	m-e-k'icx-ev-el- “mocking”
Mingrelian	i-ngar-s “mourns”	a-ngar-s “mourns for sb”	al=m-a-ngar-e “fellow mourner”
	i-bir-s “sings”	—	m-a-bir-e “singer”
Svan	i-txwiär “hunts”	—	m-e-txwiär “hunter”
	i-bərgyēl “wrestles”	x-e-bərgyēl “wrestles sb”	m-e-bərgiēl “wrestler”

Also forming particles in *m-e- are root intransitive verbs. This a productive derivation in Svan for forming both active and resultative participles (m-e-qed “coming”, me-qed-e “having come”). The same prefix is conserved in a handful of adjectives derived from root intransitives in Georgian and Zan (G. m-e-sxlet'- “slippery” < sxlt'-eb-a “slips”; m-e-dgar- “staunch, uncooperative” < a-dgr-eb-a “stops”; M. m-a-γur-(u)-u- “dying” < γur-u-n “dies”). This fact concerning the distribution of the prefix *m-e- might be related to the curious and so far unexplained presence of the PRV e- with root intransitives in Svan (see §8.4 below).

8. Changes to the distribution of PRVs in Svan. Whereas the patterning of the PRVs in Georgian and the two Zan languages is largely identical, the distribution of these morphemes in Svan — the outlier in the Kartvelian family — shows interesting divergences.

8.1. Svan pseudo-version marker a- In Svan, what appears to be the PRV a- appears in the “neutral” form (i.e. without indirect object) of nearly all transitive verbs. The exceptions are transitive ablauting verbs (e.g. qid-e “brings”; ter “recognizes”), and some verbs with vowelless roots (d-ēsgi “sets”). Most Svan transitives with neutral-version a- in are, as in Georgian and Zan, derived from noun or adjective stems, or are the causatives of other verbs. A significant number of apparent instances of the PRV a-, however, do not admit of such an explanation. Furthermore, these “pseudo-version” a- prefixes only occur in present-series paradigms, but not in the aorist. The Svan verbs shown in table 30 have Georgian and Mingrelian cognates without a PRV in their neutral-version forms. The unusual status of the a- prefix in the Svan cognates can be revealed through comparison of its distribution to that of genuine PRVs, such as those signalling subjective, objective or superessive version. In most Svan dialects, vowels in unaccented syllables are susceptible to reduction or syncope. In the 1st and 2nd-singular stems of Svan strong aorists, the PRV is expressed, whereas the root vowel undergoes syncope. Should there be no PRV, on the other hand, the root vowel appears in the surface form. These facts favor the hypothesis that in Proto-Kartvelian, transitives such as *qan- and *gab- did not add a PRV in their neutral-version forms.

Table 30. Pseudo-version marker a- in Svan

root	Georgian	Mingrelian	Svan pres 3sg	Svan aor 1sg
*qan- “plough” ObjV *x-u-qan-	qn-av-s u-qn-av-s	xon-un-s u-xon-un-s	a-qn-i x-o-qn-i	oqan [a=xw-Ø-qan] otoqn [ad=xw-ó-qan]
*gab- “boil, cook” ObjV *x-u-gab- SubjV *i-gab-	—	gəb-ən-s u-gəb-ən-s i-gəb-ən-s	aǰb-i [a-ǰab-i] x-o-ǰb-i i-ǰb-i	onǰab [an=xw-Ø-ǰab] oxoǰb [an=xw-ó-ǰab] axwiǰb [an=xw-í-ǰab]
*c’er- “write” SuperV *x-a-c’er-	c’er-s a-c’er-s	č’ar-un-s o-č’ar-an-s	ǰjri [a-jir-i] xǰjri [x-a-jir-i]	oir [a=xw-Ø-jir] otǰjr [ad=xw-á-jir]

8.2. PRV a- with indirect objects. In Svan, all finite verbs which take an indirect object must contain a PRV (Shanidze 1953: 386-7). Svan verbs corresponding to Georgian and Zan PRV-less verbs with indirect objects are mostly in the superessive version (Table 31).

Table 31. Svan cognates of Georgian PRV-less verbs with indirect objects

Svan	Georgian (with PRV)	Georgian (without PRV)
x-ō-jr-i “writes to/for”	u-c’er-s “writes for”	s-c’er-s “writes to”
x-ä-q’d-i “sells to sb”	—	h-q’id-i-s “sells to sb”
x-ä-gl-e “tears sthg off from sb/sthg”	a-glej-s “tears sthg off sthg”	h-glej-s “tears sthg off sb’s body”
x-a-č’k’wr-e “cuts sthg off from sb/sthg”	a-č’r-i-s “cuts sthg off sthg”	s-č’r-i-s “cuts sb’s sthg off”

Comparison of present-tense and aorist paradigms reveals, however, that the PRV in the Svan verbs with indirect objects patterns like the PRVs marking subjective or objective version; in other words, it is not a case of “pseudo-version” (Table 32). I will address the question of whether the proto-language had PRV-less indirect objects in the following section.

Table 32. Genuine PRV a- in Svan trivalent verbs

trivalent with PRV a-	aor 1sg	SubjV	aor 1sg
x-ä-q’d-i “sells sthg to sb”	otäq’d [ad=xw-á-q’id]	i-q’d-i “buys”	äxwiq’d [an=xw-í-q’id]
x-a-č’k’wr-e “cuts sthg off from sb/sthg”	otač’k’wr [ad=xw-á-č’k’or]	i-č’k’wr-e	eswič’k’wr [es=xw-í-č’k’or]
x-ä-kwc-e “cuts sthg off from sb/sthg”	oxwakwc [ad=xw-á-kuc]	i-kwc-e	otwikwc [ad=xw-í-kuc]

8.3. Extension of a- to primary statives and stative-passives. As shown in the table below, the Svan cognates consistently have a- where Georgian and Zan have either *a- or Ø. In the case of primary statives, it remains unclear whether Svan or Georgian-Zan best reflect the

original morphology. As for stative-passives such as Svan *x-ä-yr-a*, they correspond to Georgian-Zan statives both with and without **a-* (G. *s-Ø-c'er-i-a* “is written”; *a-c'er-i-a* “is written on sthg”), which implies that extension of the PRV *a-* has obscured a formal and semantic opposition that Svan also once had.¹⁷

Table 33. Stative verbs in Kartvelian

Svan	Georgian	Zan	
<i>x-ä-cw</i> “hangs”	<i>a-cv-i-a</i> “wears [clothes]”	Lz <i>o-con-s</i> “hides within”	“hangs (as clothing)”
<i>x-a-q'a</i>	<i>h-Ø-q'av-s</i>	<i>Ø-ʔun-s</i>	“has (animate being)”
<i>x-a-ješ</i>	<i>h-Ø-g-av-s</i>	<i>Ø-g-un-s</i>	“resembles”
<i>x-a-žx-a</i>	—	<i>Ø-jox-o</i>	“is named”
<i>x-ä-yr-a</i>	<i>s-Ø-c'er-i-a</i>	<i>Ø-č'ar-u(n)</i>	“is written”

8.4. e-prefixed ablauting intransitives. In Svan only, the *e-* prefix can occur with ablauting (root) intransitive verbs; that is, /*e-*-grade intransitive verbs paired with /*i-*-grade transitives. In Georgian and Laz-Mingrelian, this verb class can take indirect-object marking in **a-*, **i-/u-*, or no PRV, but not **e-*. Judging by the Svan verbs for which the *e-* prefix contrasts with the beneficiary PRVs *i-/o-*, the *e-* prefix is associated with indirect objects referring to the body (or parts thereof), or other types of surfaces on which the denoted action takes place.

- (9) *x-e-qč-en-i* “sthg-NOM wears out on-sthg-DAT; sb-DAT digests food/drink-NOM”
x-o-qč-en-i “sb’s-DAT sthg-NOM (e.g. shoes) wear out”
x-e-xwt'-en-i “sb’s-DAT body-part-NOM is cut”
x-o-xwt'-en-i “sb’s-DAT family-member-NOM perishes”

The prefix *e-* with ablauting intransitive verbs covers the same range of meanings as the “superessive” prefix *a-* with transitives, and in fact, many *e-*prefixed intransitive are paired with *a-*prefixed transitives from the same root, e.g.

- (10) INTRANS *x-e-q'wp-en-i* “sthg-NOM (skin, body part) is separated from sb/sthg-DAT”
 TRANS *x-ä-q'wp-e* “sb-NOM separates sthg-DAT from sb/sthg-DAT”

¹⁷ The spread of the PRV *a-* to verb types which, in Georgian and Zan, lack PRVs may have been conditioned by Svan phonotactics at an early stage of the language. As shown by inherited lexemes inherited, as well as loans from Georgian and other sources, Svan did not tolerate most types of consonant clusters in initial position (Zhghent'i 1949: 189-194; Tuite 2020 §2.3). Clusters violating phonotactic constraints were simplified, or vowels were added before or between the consonants; e.g. Sv. *a-q'ba* “jaw” < **q'ba*; Sv. *i-šgwid* “seven” < **šwid-* (Klimov 1998: 238, 251).

There is one exception to this exception: A handful of ablauting intransitives have the unusual root vocalism /ə̄/, alternating with the regular /i/-grade in their respective transitives. These verbs have the expected PRV a- rather than e- with superessive meaning:

Table 34. Svan ablauting intransitives and superessive-version transitives

	intransitive	transitive
e/i-ablauting	xəq'wpeni < x-e-q'wep-en-i “is separated from sb/sthg”	xäq'wpe < x-a-q'wip-e “separates sthg from sb/sthg”
ə̄/i-ablauting	xəč'ə̄deni < x-a-č'ə̄d-en-i “leans/lies against sthg”	xäč'de < x-a-č'id-e “makes sthg lean against sthg”

One would suspect, therefore, that the PRV e- in regular ablauting verbs replaced an earlier a-, but the mechanism by which this happened is not clear. Topuria (1967: 49-50) rejected vowel raising as an explanation (that is, xəq'wpeni < *xäq'wepeni < **x-a-q'wep-en-i), since any such operation would have also affected the corresponding transitive (i.e. x-a-q'wip-e would have become †xəq'wpe). On the other hand, it might well be that Svan e-prefixed ablauting intransitives are yet another instance of the affinity of root intransitive verbs for the PRVs *i- and *e-, as had been noted in §7.2 above. This verb class (designated as “root passives” in Tuite 2007) shares some characteristics of Kemmer’s (1994) middle-voice prototype, alongside *i-/e-prefixed medials and intransitives, and might have acquired *i- and *e-prefixed participles, and perhaps the e-prefixed superessives attested in Svan, as a consequence.

9. Indirect objects without PRVs. In Georgian and the Zan languages, but not Svan (as mentioned in the previous section), an indirect object marker can appear in certain verbs without a PRV (M. Mach’avariani 1987: 33-34). Verbs taking PRV-less indirect objects cluster around the prototypes of (i) giving, transmitting or taking, with the indirect object denoting addressees or recipients (G. mo=**m-Ø**-c-a “gave sthg to me”; mo=**m-Ø**-c'er-a “wrote to me”; Jorbenadze 1983: 219-226); and (ii) action implying body contact, often violent, with the indirect object denoting the participant intimately effected by the action (especially the inalienable possessors of a body part); e.g. M. me=**r-Ø**-k'vat-un-s dud-s; G. mo=**g-Ø**-k'vet-(av)-s tav-s (Pv=**O2-Ø**-cut-SM-3sg) “will cut off **your** head”.

As pointed out by Shanidze (1953: 388) and Deeters (1930: 79-80), the semantic range of PRV-less indirect objects overlaps with that of “superessive” objects marked by the PRV *a-. Variants of the same verb with a-prefixal and vowelless indirect object marking are attested in Old Georgian (da=**h-Ø**-k'weta /da=**a**-k'weta “threw him down (to the ground)”; in two medieval

translations of Mark 9: 20); and modern Georgian (č̣a= h-Ø-sxep’-s / č̣a=**a**-sxep’-s “cuts (branches) down (from a tree or bush)”; **a**-/h- Ø-k’vnet’s “gnaws sthg off sthg”). In the case of those Georgian and Mingrelian verbs for which a-prefixal and vowelless indirect object marking contrast, the a-prefixal verb has a stronger association with physical movement or removal from an inanimate surface, whereas the PRV-less counterpart has a stronger association with animate arguments (possessors of body parts, experiencers). One could consider these PRV-less indirect objects as “intimate superessives”, since the locative sense is usually also present (the body of the referent of the indirect object being the surface on which the action takes place). Compare the verb pairs in Table 35 (from Georgian):

Table 35. Intimate superessives in Georgian

root	Superessive version	PRV-less indirect object (intimate superessive)
glej/glij- “tear”	mo= a -glij-a “tore sthg (e.g. knob) <u>off sthg</u> ”	mo= h -Ø-glij-a “tore sthg <u>off sb’s</u> body (e.g. hat off head, mask off face)”
t’q’d- “break” (intr)	mo= a -t’q’d-a “sthg (e.g. handle) broke <u>off sthg</u> ”	mo= s -Ø-t’q’d-a “ <u>sb’s</u> sthg (e.g. fingernail, arm) broke”
d- “set, put”	da= a -d-o beč’ed-i “set a seal <u>on sthg</u> ”	da= s -Ø-d-o saxel-i “gave a name <u>to sb/sthg</u> (lit. set a name on)”

Taking into account the absence of PRV-less indirect objects in Svan, could the morphological and semantic contrast shown in the above table be postulated for Proto-Kartvelian? As evidence that at least some Georgian and Zan verbs could have lost PRVs, Shanidze (1953: 388) and Chikobava (1959) adduce cases of PRV syncope within paradigms: 1sg aorist xw-**a**-rkw “I said to sb”, 3sg x-Ø-rkw-a < *x-**a**-rkw-á; preverb-less present e-t’rp-i-s “loves sb”, preverbed present še=**s**-Ø-t’rp-i-s < *šé=**e**-t’rp-i-s. In such verbs the alternation between a- and Ø- reflects the position of the accent in an earlier stage of the language.

On the other hand, Georgian and Mingrelian — especially the latter — provide strong evidence for PRV-less indirect objects at least as early as the Georgian-Zan protolanguage, and furthermore that verbs with PRV-less indirect objects contrasted semantically and often morphologically with counterparts containing the PRV *a-. In the following two Mingrelian verb pairs, the verb in superessive version also has a different SM, whereas that with a PRV-less indirect object has the same SM as the corresponding bivalent transitive (cf. §5.1 above). This renders less likely the hypothesis that the PRV-less verbs resulted from syncope of the PRV *a-

Table 36. Superessive version and change of series marker (Mingrelian)

root	Superessive version (o-√-an- < *a-√-ew)	PRV-less indirect object (Ø-√-un- < *Ø-√-aw-)
č’ar- “write”	o-č’ar- an -s “writes on; signs”	Ø-č’ar- un -s “writes to”; e.g. m-Ø-č’ar-un-s “writes to me”
k’vat- “cut”	o-k’vat- an -s “cuts off from”	Ø-k’vat- un -s “cuts sb’s sthg”; e.g. ʔusi r-k’vat-un-d-es “they would cut off your ear” (Kajaia 2004 #8322)

The most likely scenario, therefore, is that Proto-Kartvelian had PRV-less verbs with indirect objects, alongside verbs with one or the other PRV. Georgian and Laz-Mingrelian continue this state of affairs, whereas the extension of the PRV a- to originally PRV-less verbs with indirect objects led to the loss of this distinction in Svan.

10. Layering of PRVs. In support of his assertion that only three types of version are to be distinguished — neutral, subjective and objective — Shanidze (1953: 344-6, 353-4, 389) pointed to instances in which subjective or objective version markers were superimposed on verbs with PRV-less or superessive indirect objects. The resulting verbs have two indirect objects, although only the PRV linked to the beneficiary argument appears in the verb morphology (see also Harris 1981:286, Singer 2003, Makharoblidze 2012a on Georgian “double dative” verbs):

Table 37. Subjective and objective version layered over verbs with indirect objects

	“neutral version”	objective/subjective version
PRV-less trivalent	mi- s -Ø-c’er-a “wrote to sb”	mi- g-i -c’er-a “wrote to sb for <u>you</u> ”
superessive	a -k’er-eb-s “sews sthg on sthg”	i -k’er-eb-s “sews sthg on <u>one’s own</u> sthg” u -k’er-eb-s “sews sthg on <u>sb’s</u> sthg”
intransitive	s -t’q’d-eb-a “sb/sthg’s sthg (e.g. horse’s leg) breaks”	u -t’q’d-eb-a “ <u>sb’s</u> sthg’s sthg (e.g. <u>X’s</u> horse’s leg) breaks”
a-PRV stative	a -cv-i-a “wears (clothes)”	g-i -cv-ia “ <u>your</u> X (e.g. child) wears sthg”

10.1. Derivational levels. Such examples demonstrate that PRVs can in a sense be assigned to derivational layers, with PRVs linked to outer layers displacing those linked to inner ones. For expository purposes, I distinguish four levels of derivation at which PRVs can be added or modified:¹⁸

- (I) lexically-specified PRVs;
- (II) the addition of indirect objects affecting the semantics of the verb (superessive, including intimate and reflexive superessives, and addressees);

¹⁸ Or perhaps three layers; it is not clear to me whether or not layers II and III should be coalesced into a single valence-changing layer.

- (III) intransitivization (stative-passives and *i-/e-prefixed intransitives);
 (IV) the addition of beneficiary (subjective and objective) version markers and their associated explicit or implicit indirect objects.

(level I). Drawing upon the data concerning the relation between verb types and PRVs in the preceding sections, a list can be compiled of likely pairings of verb types and PRVs in proto-Kartvelian, using the patterning of PRVs in participles as a guide. From active participles in *m-, as shown in table 38, one can distinguish transitive and stative roots with no PRV, and with the PRV *a-.¹⁹ Medials are divided into those with no PRV, and those with *i-/*e-. Note also that among the small number of active non-medial intransitives with active participles, some have no PRV, and others have *e-. Note also the affinity of root intransitive verbs, which take no PRVs in their basic forms, for participles in *i- and *e- (especially in Svan). Transitives with lexically-specified *i-in their basic forms are included, even though they do not have distinctive participles (but note that the stative-passive derived from i-č'er-s “takes, holds” requires the PRV i-/u-).

Table 38. Proto-Kartvelian verb types with lexically-specified PRVs (Georgian examples)

PRV	primary verb	participle in *m-	verbal noun in *ł-	stative-pass
∅- transitive tes-av- “sow”	tes-av-s “sows”	m-tes-v-el- “sower”		s-tes-i-e-s “is sown”
*i- transitive i-č'er- “take”	i-č'er-s “takes, holds”	m-č'er- “holder”		u-č'er-i-a/ u-č'ir-av-s “holds”
*a- transitive a-nt-eb- “light”	a-nt-eb-s “lights”	m-a-nat-ob-el- “lighter”	—	a-nt-i-a “is lit”
∅- medial duy- “boil”	duy-s “boils”	m-duy-ar- “boiling”		
*i-/*e- medial e-k'icx-ev- “mock”	e-k'icxev-s “mocks”	m-e-k'icxev-el- “mocker”	s-i-k'icxev-a “mocking”	
∅- intransitive sxlt'- “slip”	sxlt'-eb-a “slips”	m-e-sxlet'- “slippery”	(si-tb-o “warmth” < tb- “become warm”)	
∅- stative (m)ši- “hunger”	h-mši-i-s “is hungry”	m-ši-er- “hungry”		
*a- stative a-xs-ov-	a-xs-ov-s “remembers”	m-a-xs-ov-ar- “remembering”	—	
*i-/*u- stative i-q'var- “love”	u-q'var-s “loves”		s-i-q'var-ul- “love”	

¹⁹ The active participles of Georgian i-/u- statives are formed with the circumfix mo-√-e, e.g. mo-q'var-e “lover”, as are those of many medial verbs, e.g. mo-gizgiz-e “sizzling; blazing” (M. Mach'avariani 1987: 105-6). The etymology of the prefix is unclear, and it is unlikely to contain a PRV, so therefore it is not included in the table.

(level II) The operations at this level concern indirect objects which specify the trajectory of the action: on to, or off of, a surface or body part, or to a recipient. For the most part, these transformations add an indirect object to the basic verb’s argument structure, such as: (i) a noun specifying a target or surface, accompanied by the superessive PRV *a-; (ii) the possessor of an effected body part in an “intimate superessive” construction of the kind mentioned in §9, without a PRV; (iii) or other types of PRV-less indirects (labelled “addressees” by Jorbenadze 1983: 219). Should the possessor of the effected body part or target be coreferential with the grammatical subject, the reflexive PRV *i- can appear (e.g. tit-i mo=v-i-č’er-i “I cut **my (own)** finger; see §6.1 above). For some trivalent verbs, as noted previously (§6.1), the addition of the PRV *i- signals the suppression of an overt indirect object; e.g. s-txov-s “asks sb for sth” > i-txov-s “asks for sth” (Shanidze 1953: 338)

In Georgian and Mingrelian, the addition of a level II indirect object can be accompanied by a change of series marker (e.g. č’ed-(**av**)-s “hammers sthg” > a-č’ed-**eb**-s “hammers/nails sthg onto sthg”; cf. §5.1), and/or a change of preverb (**da**=c’er-a “wrote” > **mi**=/**mo**=s-c’er-a “wrote (and sent) to sb”). On the whole, Georgian verbs with level II indirect objects, whether marked by the PRV a-, or no PRV, prefer the preverbs /mo-/ “hither”, /mi-/ “thither”, /gada-/ “across”, and /da-/ (cyclical or nonspecific motion). In Svan, verbs with an indirect object linked to the PRV a- favor the preverb /es-/, whereas the base form of the same verb, and forms in the subjective or objective version, take other preverbs:

Table 39. Superessive version and change of preverb in Svan

	k’wiš- “break”	ir- “write”	učx- “rain”
PRV a-	eswak’wš [es=xw-a-k’wiš] “I broke sthg on sthg”	eswäyr [es=xw-a-ir] “I wrote sthg on sthg”	žesučxe [ži-es=x-a-učx-e] “it rained on sb/sthg”
bivalent	ok’wš [a(d)=xw-Ø-k’wiš] “I broke sthg”	otiyr [ad=xw-ir] “I wrote sthg”	läyučxe [la=i-učx-e] “it rained”
PRV o-	otok’wš [a(d)=xw-o-k’wiš] “I broke sthg for sb”	otoyr [ad=xw-o-ir] “I wrote sthg to/for sb”	

(level III) Transitive verbs can be transformed into intransitives through stativization (conversion into a stative-passive), or conversion into *i-/e-prefixed passive/deponents, which, as I hypothesized in §6.2, originated as a means of creating medials from transitives.

(level IV) The outermost layer is where version marking in the strict sense occurs, that is, the addition of an overt beneficiary indirect object (objective version), or a latent reflexive expressing a relation of interest or possession between the grammatical subject and the activity expressed by the verb and its direct object.

In the following table are examples of derivations of various types of verbs and their associated PRVs: for example the stative-passive a-nt-i-a “is lit for sb; sb’s sthg (e.g. candle) is lit” from the primary a-transitive a-nt-eb-s “lights”; or the intransitive e-k’er-eb-a “is being sewn on to sthg” from the transitive k’er-av-s “sews” via the superessive a-k’er-eb-s “sew sthg on to sthg”:

Table 40. Sample derivations of verbs with PRVs in Georgian

LEVEL	*a-transitive	Ø-transitive	Ø-trivalent	*i-medial
I. lexical	a-nt-eb-s “lights”	k’er-av-s “sews”	s-txov-s “asks sb for sthg”	i-glov-s “mourns”
II. indirect object		a-k’er-eb-s “sews sthg on to sthg”	i-txov-s “asks for sthg”	e-glov-s “mourns sb”
III. intransitivization	a-nt-i-a “is lit”	e-k’er-eb-a “is sewn on to sthg”		
IV. version	u-nt-i-a “is lit for sb; sb’s X is lit”		u-txov-s “asks for sthg for sb”	

10.2. Superimposition of PRVs and the hybrid nature of *e-. In view of the phenomenon of the superimposition of PRVs, Marr (1925: 138), Deeters (1930: 90) and Vogt 1947 surmised that the *e-prefix might have been the product of such an operation; more precisely, that *e- may have acquired its phonetic form from the addition of the superessive, indirect-object-creating *a- to intransitive stems prefixed by *i-. Several facts argue in favor of such an etymology: The indirect objects of *e-medials denote targets or interlocutors (e-k’icxev-s “mocks sb”, e-svr-i-s “shoots at”), as do those of *e-deponents (§7.2.b). As for *e-intransitives with passive readings, Jorbenadze (1983: 122-8) noted their lack of affinity for objective version in the strict sense (that is, beneficiary and alienable possession relations), whereas superessive interpretations are quite common. Finally, the etymological link between *e- and *a- would provide an elegant explanation for the otherwise puzzling Svan e-prefixed root intransitives, and their close relation to transitives in superessive version (§8.4). That being said, the presence of the PRV e- in Svan and Georgian, and its cognate a- in Laz-Mingrelian, and especially the participation of *e- in the formation of active participles in all Kartvelian languages, would

situate any hypothetical merger of *a- + *i- > *e- at a very early stage in the prehistory of Kartvelian.

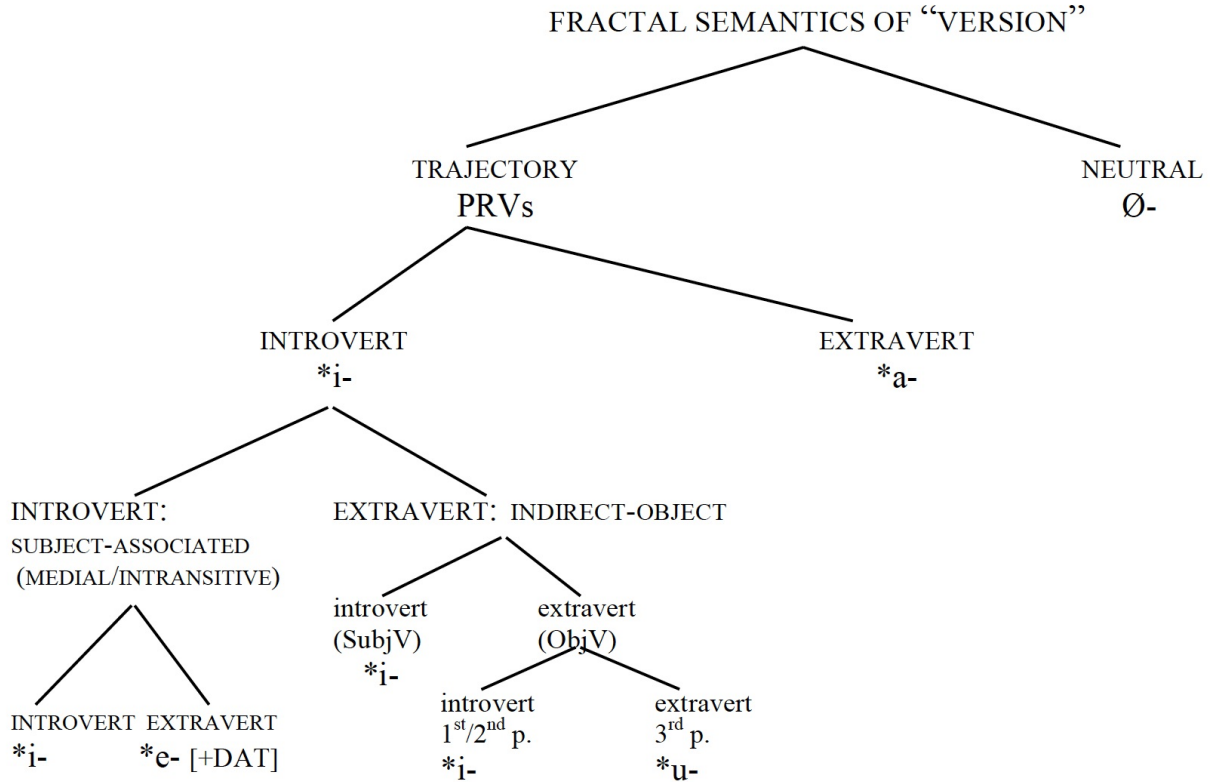
11. Conclusion. Pre-radical vowels in Proto-Kartvelian. The three-way contrast among *a- prefixed, *i- prefixed and unmarked verb roots has a long history in the Kartvelian languages, and is deeply implanted in the verb system. It also plays a role in the formation of participles and deverbal nouns. One can juxtapose the principal features of *a- and *i- as follows:

Table 41. Contrasting characteristics of PRVs *a- and *i-

	*a-	*i-
trajectory	subject → affected surface (superessive, “transitive”; EXTRAVERSION)	subject ↻ (orientation toward grammatical subject, speech context; INTROVERSION)
animacy	inanimate	human, social
valence	adds argument (superessive, causative)	replaces overt actant with implicit reflexive

The characteristic I label “trajectory” appears to be basic, and the others are extensions of it. The PRV *a- primarily expressed an orientation or action trajectory toward an affected target or surface, as exemplified by primary *a-verbs, and participles and deverbal nouns containing *a-. The orientation signaled by *i- is inward, toward the two-layered center mentioned in §7.1: the speaker and hearer within the speech context, and the grammatical subject of the clause. By extension, *i- has a strong association with human participants, contrasting with the inanimacy of the prototypical argument marked by *a-: a surface or place. Furthermore, the PRV *a- has become linked to transitivity, a change which already occurred in Proto-Kartvelian, since *a- has become one of the core components of causative morphology in all Kartvelian languages.

11.1. The fractal semantics of “version”. As a label for the contrast as I describe it, I will repurpose the term “version”, but with a meaning closer to that proposed by M. Mach’avariani (1980) with respect to the contrast between the version vowels *i- and *u-. The initial system of Proto-Kartvelian PRVs would have been structured more or less as shown in the following diagram:



The original contrast between *a- and *i- is one of extraversion, “turning outward” from the subject to a target or surface, vs. introversion, “turning inward” toward the subject and the speech context. The “extravert” PRV *a- foregrounds the patient-like traits of the argument it indexes, whether the latter is formally represented as direct object (as in primary *a-transitives) or indirect object (as in superessives). The typical object of a verb marked by the PRV *a- is the passive site of an action initiated by the subject, and is usually inanimate; the action is represented as “turning outward” from the active subject to the passive target. The “introvert” PRV *i-, by contrast, foregrounds features characteristic of the deictic center of the speech act, that is, the context created by a speaker addressing an interlocutor: humanness, social agency, presupposability.

Interestingly, intro-/extra-version seems to replicate itself fractally as one follows the branching of the diagram downward, from the larger context to that within the clause itself. The next branch separates the “subject-associated” (introvert) component of the semantics of *i- (as described in §6), and the “indirect-object-associated” (extravert) component. The same type of contrast at the level of argument structure — grammatical subject (introvert) vs. indirect object (extravert) — generates the opposition of *i- to *e- for medial and intransitive verbs, and also that of subjective version *i- (implicit reflexive coreferential to grammatical subject) vs.

subjective version *i-/u- (overt indirect object). Finally, extraversion in Mach’avariani’s sense separates 3rd-person *u- from 1st-/2nd-person *i-.

11.2. Intro-/extra-version and proto-Kartvelian person marking. The ancient Kartvelian version system as reconstructed here is organized around the contrast between a trajectory toward the deictic center — associated with presupposability, animacy, and the 1st and 2nd persons — and a trajectory away from the center toward a target or surface — associated with patienthood and inanimacy. Contrasts of this sort in the grammars of other languages have been explained in terms of an “animacy hierarchy”, or a ranking of “ontological statuses” (Klaiman 1992), with 1st and 2nd persons at the high end, and inanimate nouns at the low end. While “animacy” does play some role, Kartvelian PRVs are also sensitive to coreferentiality within the clause (reflexive *i-). More appropriate to the matter at hand, in my view, is the “indexibility hierarchy” of Bickel & Nichols (2007: 224–5), which represents “the ease with which a referent can be identified – or ‘indexed’ – from within the speech-act situation”. This parameter also places the 1st and 2nd persons at the top, not due to their animacy, but rather because of what Silverstein (1981: 241) calls the “unavoidability and transparency of metapragmatic reference”. The 1st and 2nd persons presuppose nothing more than the act of speaking as a condition for felicitous use. Reflexive and anaphoric pronouns require a wider context, which includes the contents of the utterance, not only those who utter and hear it. Proper names and other words denoting people presuppose a social matrix within which successful reference can be made; and so on. So, if ontology is to be invoked, it would be more appropriate to qualify it as a “social ontology”, centered in the mini-society of face-to-face conversation, and the prototype of human social action.

Let us turn back to Kartvelian, and to what can be known or surmised about its proto-language, in order to understand the grammatical system within which the early PRVs operated. The morphology of the verb is sufficiently similar in the Kartvelian languages to permit a fairly detailed reconstruction at the proto-language level (see Tuite 2018). As usually described, the Kartvelian verb has two sets of person affixes, one set marking the grammatical subject (S), and the other marking the grammatical object (O). The 1st and 2nd persons are marked by set S and O prefixes, with a single suffix *-t indicating a plural 1st or 2nd-person subject. The crossreferencing of 3rd-person arguments is primarily suffixal, and more problematic for the reconstruction of Proto-Kartvelian verb morphology. Georgian, Laz and Mingrelian have three pairs of S3g and S3pl suffixes (the Old Georgian suffixes are shown in table 42), the choice of set being determined by tense and mood, and sometimes verb type (Tuite 1998: 74–80). But Svan has nothing of the sort, leading to speculation that the allomorphic S3 marking system

was an innovation of Proto-Georgian-Zan (Schmidt 1982; M. Mach’avariani 1987: 16-7). The only S3 marking which can be securely attributed to Proto-Kartvelian is the conjunctive/optative suffix *-s (Klimov 1964: 161; Fähnrich 2007: 357), as well as an ancient accent shift in the past-indicative tenses (imperfect and aorist), which distinguished 1st and 2nd-person from 3rd-person stems (Tuite 2003).²⁰

Table 42. Person and number affixes in the Old Georgian and Svan verb.

	<i>OLD GEORGIAN</i>		<i>SVAN</i>		
SET S (“SUBJECT”)					
1sg	v-	-Ø	1sg	xw-	-Ø
1pl	v-	-t	1excl	xw-	-d
			1incl	l-	-d
2sg	x/h/Ø-	-Ø	2sg	x-	-Ø
2pl	x/h/Ø-	-t	2pl	x-	-d
3sg		-s, -a/o, -n	3sg		-Ø, -s
3pl		-an/en, -es, -ed	3pl		-x
SET O (“OBJECT”)					
1sg/excl	m-		1sg	m-	
			1excl	n-	
1incl	gw-		1incl	gw-	
2	g-		2	ǰ-	
			2pl	ǰ-	-x
3	x/h/Ø-		3	x/Ø-	
			3pl	x/Ø-	-x

The system of 1st and 2nd person prefixes is clearly very old in Kartvelian, as indicated by the conservation of the two prefix sets more or less intact in all of the daughter languages, as well as its internal phonosemantic structure — person being distinguished by the front/back parameter, and function by the degree of occlusion:

Table 43. Proto-Kartvelian 1st and 2nd person prefixes

	Set S (<i>continuant</i>)	Set O (<i>stop</i>)	
+ speaker	*w-	*m-	FRONT: labial
+ speaker, + hearer		*gw- < g + m?	
+ hearer	*x-	*g-	BACK: velar, uvular

²⁰ Several linguists have argued that the proto-language should have had an S3 prefix as well, but the evidence for this, coming exclusively from Svan, is weak and susceptible to other interpretations (Schmidt 1982).

Although there are two sets of person prefixes, no more than one can appear in any given verb. The Set S prefixes only appear with a 3rd-person object, or if the verb is intransitive. When the verb has a 1st-person or 2nd-person object, regardless of what person the grammatical subject is, only the Set O prefix appears:

m-c'er [O1sg-write] “you write to me” m-c'er-s [O1sg-write-S3sg] “s/he writes to me”
g-c'er [O2-write] “I write to you” g-c'er-s [O2sg-write-S3sg] “s/he writes to you”

The pattern of Kartvelian personal prefixation is usually described in terms of slot-competition rules, zero allomorphs and inference.²¹ If, however, the patterning of the prefixes is incorporated into their semantics, their meaning could be described as in Table 44:

Table 44. Proto-Kartvelian personal prefixes, as an extra-/intro-vert system

	EXTRAVERT/NEUTRAL (= Set S)	INTROVERT (= Set O)
+ speaker	*(x)w- 1 > 3	*m- 2, 3 > 1
+ speaker, + hearer	—	*gw- 3 > 1+2
+ hearer	*x- 2 > 3	*g- 1, 3 > 2
— speaker, — hearer	*Ø 3SUB > 3DO/NOM	*x- 3SUB > 3IO, 3DO/DAT

The Set S prefixes appear in monovalent verbs, or — when the verb has a direct and/or indirect object — when a 1st or 2nd-person subject acts on, toward, or for a 3rd-person argument. When the verb has a 3rd-person subject, and either no direct object or a 3rd-person argument assigned nominative case (that is, when the subject is marked by the ERG), there is no Set S prefix. The Set O 1st or 2nd-person prefixes indicate both the person of the direct or indirect object, and that of the subject. The meaning of O1sg *m- can be summarized as 2,3 > 1, that is, 2nd or 3rd person acting on, toward, or for the 1st person. Likewise, O2 *g- = 1,3 > 2: 1st or 3rd person subject and 2nd person object. As indicators of an action trajectory away from a speech-act participant toward a 3rd-person object, the Set S prefixes could be considered extravert — or better, neutral, since the same prefixes are used in monovalent verbs. By the same token, the Set O prefixes, which signal that the denoted action is directed on, toward, or for a speech-act participant, could be interpreted as introvert. The introvert marking of O3 *x-, which appears with a 3rd-person subject and a 3rd-person object possessing certain attributes of an indirect

²¹ See, for example, the analyses of Georgian person marking by Boeder (2002) and Comrie (2017: 39-41). For an analysis closer to the one I propose here, based on Svan data, see Kibrik 1996.

object, might reflect the greater discourse prominence of indirect objects in comparison to direct objects, as well as the greater likelihood that they have human referents.

The range of influence of the extra-/intro-versions contrast also extended as far as the innermost preverb slot, immediately preceding the person prefixes. Georgian and Laz-Mingrelian have an inner preverb **mo-*, which signals movement toward the speaker, and usually the hearer as well (Klimov 1998: 124). For certain verbs in Georgian, the preverb *mo-* is essentially obligatory with 1st or 2nd-person indirect objects: *ga-u-brun-eb-s* “sends back to her/him/them”, but *ga-mo-g-i-brun-eb-s* “sends back to you”. This is especially the case for verbs of giving, transferring, etc. (see Lacroix 2011 on the verb *-č-* “give (in marriage)” in Laz). The Svan inner preverbs are of particular interest due to their close morphophonological and semantic association with the personal prefixes and the PRVs that immediately follow them (Tuite 2020). In addition to the pair *an-* “hither” and *a(d)-* “hither”, which signal movement toward or away from the speaker, the preverbs *es-* and *la-* manifest a certain affinity for the PRVs. The inner preverb *es-* is especially common with verbs denoting action directed toward a goal or surface (often, but not always, accompanied by the superessive version). The preverb, *la-*, on the other hand, often appears with verbs in the subjective or objective version, and verbs of communication (that is, verbs denoting activities oriented toward a human participant).

11.3. Hierarchical indexication and pragmatic skewing in Kartvelian. The Kartvelian personal prefix system, the semantics of which I compared to the intro-/extra-version contrast underlying the PRVs, bears an evident resemblance to the hierarchical indexication systems described for Algonquian and several other languages, mostly in the New World (Zúñiga 2006), in which “access to inflectional slots for subject and/or object is based on person, number, and/or animacy rather than (or no less than) on syntactic relations” (Nichols 1992: 66). The resemblance is especially striking when the Kartvelian person-indexation system is compared to those of certain Tupí-Guaraní languages, such as Emerillon, which, like Kartvelian, has two sets of person prefixes competing for a single slot in the verb, with preference accorded to 1st and 2nd person over 3rd (Rose 2009; 2015). There is at present a lively debate over the typology of hierarchical systems, whether they represent a distinct alignment type, or simply an indexation system which functions independently of alignment (Rose 2009). The role of hierarchies in the synchronic functioning and diachronic evolution of such systems has also been called into question, with some preferring to substitute “co-argument sensitivity” for strict person or indexability rankings (Witzlack-Makarevich et al 2016; Rose 2018). I will not wade into the discussion about hierarchical alignments at this time, except to note that Kartvelian can be added to the short list of languages from the Caucasus regions which appear to have person-

sensitive indexation systems of the hierarchical or direct/inverse type.²² The Kartvelian personal prefix system might also be relevant to the discussion about co-argument sensitivity, especially in the light of Heath’s detection of what he calls “pragmatic skewing” in the morphosyntax of some Native American languages. In his view, these systems selectively mask or opacify the morphological expression of a 1st person subject acting on a 2nd person object, or vice-versa, for reasons comparable to those motivating the avoidance of maximally transparent 2nd-person forms in polite speech (Silverstein 1996). One consequence of the Kartvelian one-prefix-per-slot constraint is in fact the avoidance of direct marking of both 1st and 2nd person in the same verb. Pragmatic skewing might even account for a perplexing feature of the O3 prefix *x-. In Georgian the O3 marker represents the only exception to the one-prefix constraint: In the earliest texts it could precede the S1 prefix v/w-, e.g. mi-x-w-c-e [Pv-O3-S1-give-OPT] “I will give them (my wealth)”, Lk 19:8 (Xanmet’i Gospels), and in later periods, the order was reversed (mi-v-s-c-e [Pv-S1- O3-give-OPT] “I will give it to sb”).²³ The blocking of 1st and 2nd person prefixes co-occurring in the verb, while allowing S1 and O3 to co-occur, raises the question whether a socially-motivated avoidance of transparent reference to the speaker and hearer acting on each other contributed to the emergence of the Kartvelian person-indexation system as we now know it.

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²² In a survey of direct/inverse marking systems, Jacques and Antonov (2014) include two languages from the Caucasus: Icarí Dargwa, an East Caucasian language; and Kabardian, a West Caucasian language. The East Caucasian proto-language is not believed to have had person-marking affixes, but they have emerged in several Dargwaic languages, along with their closest relative Lak, and a handful of other languages from this family (Sumbatova 2011). In the case of Icarí, suffixes added to the verb in certain tenses indicate the participation of a 1st or 2nd-person agent or patient. Thematic vowels preceding the person suffixes indicate whether the agent is higher or not higher than the patient, according to the hierarchy 1,2 > 3 (Sumbatova 2003: 82). The polysynthetic Kabardian verb includes a prefix sensitive to what Colarusso (1984; 1992: 84-5, 92-3) defines as “horizon of interest”, by which is meant “the speaker’s (by polite extension, sometimes the hearer’s) physical, social or emotional stake” in the referent of the absolutive argument. At present I do not detect anything in these two person-related or deitic phenomena which would indicate a possible link to Kartvelian person indexation.

²³ Rose (2015, 2018) notes that in some Tupí-Guaraní languages, which otherwise have a strict single-person-index constraint, an exception is made when the object is 3rd person.

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