

History in Support of Synchrony^{*}

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0. Introduction

In a recent paper I argued that diachronic linguistics can explain certain typological phenomena that are otherwise problematic; in the present paper I want to discuss two other ways the study of historical data can contribute to synchronic linguistics. In §1 I argue that consideration of a prior stage of a language offers the kind of insight also provided by the examination of closely related languages. In §2 I show that diachronic data offer a way of testing hypotheses and claims.

1. Person Agreement in Old Georgian

Generative grammar has gained insight into the way language operates by examining in depth minimal differences between dialects or closely related European languages. Of course, other approaches have also made good use of related dialects. For example, it is well known that it was in part the comparison of the Swiss dialect of Kerenz with other forms of German that led to the recognition of the regularity of sound change (Osthoff and Brugman 1878:viii-ix). In this section I argue that it is possible to gain similar insights by studying older stages of a language from a synchronic point of view.

Person and number agreement in the Georgian verb has been one of two testing grounds for new morphological theories for more than twenty years. At least eight analyses of these paradigms have appeared in the literature in that time; here I discuss only two of these—those of Anderson (1982, 1984, 1986, 1992) and Halle and Marantz (1993). Georgian, along with Potawatomi, seems to have been chosen as representing a complex system, yet the agreement of Old Georgian is significantly more complex and thus would better test theories. Here I discuss only the agreement prefixes, not the considerably more complex suffixes. I want to make two points here: (i) Both Anderson's and Halle and Marantz's approaches make the correct

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predictions for most of the interaction found among agreement prefixes. (ii) Residual interaction is a challenge to both.

As is well known, Anderson's approach treats the markers of agreement as processes (rules) applied to bases, groups competing rules in blocks, and makes use of extrinsic ordering as necessary. Halle and Marantz's analysis treats the markers as objects (morphemes) added to bases, and is otherwise modeled after Anderson's treatment. The disjunctive ordering and form of both analyses are summarized in (1).

(1)	Anderson (1986:7)	Halle and Marantz (1993:119)
	a. /X/ → /gv + X/	a. [+1], DAT, [+pl] ↔ /gv-/
	b. /X/ → /m + X/	b. [+1], DAT ↔ /m-/
	c. /X/ → /g + X/	c. [+2], DAT ↔ /g-/
	d. /X/ → /v + X/	d. [+1] ↔ /v-/

To simplify, I have omitted the portion of Anderson's rules that specifies that rule (1a) is conditioned by a first person plural object, (1b) by a first person singular object, rule (1c) by a second person object, and rule (1d) by a first person subject. We may overlook the fact that Halle and Marantz's rules, as written, will work only in one subset of Georgian tense-aspect-mood categories (traditionally called "Series I"). Both analyses prefer ordering by Panini's Principle (or "The Elsewhere Condition"), but both accept extrinsic ordering. The disjunctive ordering represented in (1) for both analyses can account for the "competition" among these prefixes in the Modern Georgian dialect that they examine.

Agreement in Old Georgian was considerably more complex, even when we limit our study to the prefixal markers of this type. First, while Modern Georgian has only the first person subject marker *v-*, introduced by rules (1d), Old Georgian had in addition a second person subject prefix, with the allomorphs *s-*, *h-*, *x-*, and $\emptyset$. Second, while the dialect of Modern Georgian considered by these authors has agreement prefixes only for first and second persons, Old Georgian had a third person object prefix, with the same allomorphs as the second person subject marker.¹ Third, although syntactic rules prevent the cooccurrence of markers of direct and indirect objects in Modern Georgian (Harris 1981:48-52), these syntactic rules did not apply in Old Georgian. Consequently there was "slot competition" between markers of direct and indirect objects in Old Georgian that does not occur in Modern Georgian. Either version of the disjunctive rules of (1) will account for most of this increased competition, if we assume that the rules that introduce second person subject prefixes (1'a) and third person object prefixes (1'd) are ordered as in (1'). I assume further that the basic form of these additional markers is *h-*, that phonological rules provide the correct final forms,² and that other parts of the rules will assure that

¹ In Old Georgian, the third person object marker is conditioned by indirect objects in Series I and II, but by direct objects only in Series I. I have selected examples below from Series I when the direct object prefix is at issue.

² Old Georgian texts are of three types regarding these allomorphs. One set of texts, termed *xanmet'i*, uses only the form *x-* for both prefixes; a second set, termed *haemet'i*, uses only the form *h-* for both.

these are conditioned by nominals with appropriate features.

- (1') Adaptation of
 Anderson (1986:7) Halle and Marantz (1993:119)
- | | |
|-------------------|-----------------------------|
| a. /X/ → /gu + X/ | a. [+1], DAT, [+pl] ↔ /gu-/ |
| b. /X/ → /m + X/ | b. [+1], DAT ↔ /m-/ |
| c. /X/ → /g + X/ | c. [+2], DAT ↔ /g-/ |
| d. /X/ → /h + X/ | d. [+3], DAT ↔ /h-/ |
| e. /X/ → /v + X/ | e. [+1] ↔ /v-/ |
| f. /X/ → /h + X/ | f. [+2] ↔ /h-/ |

In Modern Georgian the first person plural object prefix is phonetically [gw] (transliterated <gv>); in Old Georgian the same sounds were usually written <gu> (transliterated). In Old Georgian a first person plural object could be marked with either *gu-* or *m-*, but we will overlook the small problem this causes in the application of the rules in (1').

One generalization represented by the disjunctive ordering in (1) and (1') is that, when both a subject prefix and an object prefix are conditioned, it is the object prefix that shows up. This is illustrated by (2) and (3) with direct objects. Agreement prefixes are in bold and are glossed with 'S' for subject markers, 'O' for object markers, and a number for first, second, or third person. Arguments are represented at the right margin of the page, in the order *subject*, *direct object*, *indirect object* (*where applicable*), with bold type indicating the argument or arguments marked by agreement prefixes. For example, in (2) the subject is first person, the direct object second; the latter is marked by a prefix in bold, glossed 'O2'.

- (2) me **gici** šen (Ist. Kr. II, 29, 8; Imnaišvili 1971:320) 1-2
 I O2-know you
 'I know you.'
- (3) vitarmed ara **mici** me (Luke 22:34; Imnaišvili 1971:320) 2-1
 because NEG O1-know me
 'because you do not know me'

The generalization holds also when the first or second person is the indirect object, as shown in (4)–(7).

- (4) p'uri čueni samaradisoj **momec** čuen dyejs (Mt 6:11) 2-3-1
 bread our everyday O1-give us today
 'Give us today our daily bread.'

The third set of texts, the *sannarevi*, has *h-* before labial, velar, and uvular consonants, *s-* before alveolars and alveopalatals, and Ø before vowels.

- (5) p'uri čueni tanaarsobisaj momec čuen dyiti dyed (Lk 11:3) 2-3-1
 bread our essential O1-give us day-to-day
 'Give us each day our essential bread.'
- (6) čuen mas sesxsa migagebt (Piz XI, 23, Abulaže 1973:214b) 1-3-2
 us the loan O2-give
 'we give you the loan'
- (7) aramca migecit igi šen (John 18:30) 1-3-2
 NEG O2-give him you
 'We would not have delivered him up to you.'

Anderson (1982, 1984, 1986, 1992) and Halle and Marantz (1993) observe this "slot competition" and this is the primary fact that motivates their arranging the agreement rules in "blocks" of competing rules.

The second generalization represented by the disjunctive ordering is that, when there are both direct and indirect objects, first person objects take precedence over second person, and second over third, without regard to grammatical relations. Neither Anderson (1982, 1984, 1986, 1992) nor Halle and Marantz (1993) describe this interaction, because in Modern Georgian it is preempted by the syntax, as noted above. The correctness of the generalization is shown below.

- (8) γmertman mogucna qelta tkuenta 3-1-2
 god O1-give hands y'all's
 'God delivered us into your (PL) hands.'
- (9) mogucna tkuen γmertman... qelta čuenta 3-2-1
 O1-give y'all god hands our
 'God delivered you (PL) into our hands.'
 (Ag. 3eg. I, 167, 28 and 25; Imnaišvili 1971:319)

These show that first person objects win the slot competition over second, regardless of whether the first person is direct object, as in (8), or indirect, as in (9).

- (10) mcnebasa axalsa migcem tkuen (J 13:34) 1-3-2
 commandment new O2-give you
 'A new commandment I give unto you.'
- (11) migcemden k'rebulsa (Mt 10: 17 AB, Imnaišvili 1986:354) 3-2-3
 O2-give council
 'they will give you to [their] council'

These show that second person (*g*-) wins over third (*h*-), whether the second person is the direct or indirect object, illustrated in (10) and (11), respectively.

- (12) sik'udilsa araj mimca me (Plk't' 156: 18, Abulaže 1973:253a) 3-1-3
 death NEG O1-give me
 'He did not give me to death.'
- (13) igi mimcems me (Mk 14:20AB) 3-3-1
 he O1-give me
 'He will give me [to them].'

These examples show that first person (*m-*) takes priority over third (*h-*), as would be expected by transitivity.

In all of the above, there is competition for a single slot. We can conclude, with Anderson and Halle and Marantz, that all of these rules occur in a single block, in order to account for the competition among them, as indicated in (1').

The problem comes with the third person object (*h-*), for this cooccurs with the first person subject (*v-*), as illustrated in (14)–(17).

- (14) ara mivscnet asulni čuenni ersa ucxosa 1-3-3
 NEG S1-O3-give daughters our people foreign
 'We have not given our daughters to foreign people.'
 (O Neem. 10: 30, *apud* Abulaže 1973:253a)
- (15) anu ara mivscet? (Mk 12:14) 1-3-3
 or NEG S1-O3-give
 'or should we not give it [to Caesar]?'
- (16) xolo magas ver vñq'op (Iona 140, 29; Imnaišvili 1971:276) 1-3
 but that NEG S1-O3-do
 'but that I cannot do'
- (17) movñguare igi moc'apeta šenta (Mt. 17:16AB) 1-3-3
 S1-O3-bring him disciples your
 'I brought him to your disciples'

(Although I have indicated to the right that the verb agrees with the first person subject and the third person indirect object, in fact we cannot determine whether it is the direct or indirect object that the verb agrees with here, since both are conditioned, and the markers are identical.) Given that the first person subject is together with other rules in a single block in (10), we would expect the third person object prefix, *h-*, to cooccur with all of them, but it does not, as shown below. (12) and (13) show that *h-* and its allomorphs do not cooccur with *m-*, the marker of the first person singular subject. In (12) we get *mimca*, not **mimsca*, and in (13) *mimcems*, not **mimscems*; this shows that *m-* does not cooccur with *h-* (or the *s-* that would be expected before *c* of the root). (10)–(11) and (18) show that the second person object prefix, *g-*, also does not cooccur with *h-*.

- (18) migcem šen sik'imasa sazep'urosa čemsa 1-3-2
 O2-give you ? own my
 'I give you my own (possession?).'
 (Ip'. Rom.-k'urtx. 64:1, *apud* Abulaže 1973:253a)

In (18) we find *migcem*, not **migschem*; this shows that the second person object prefix, *g-*, does not cooccur with *h-* or its allomorphs. (19a) and (20) illustrate that *h-*, the marker of the third person object, does not usually occur twice when both direct and indirect objects are in the third person, but (19b) and (21) show that this may occur in some instances.³

- (19) a. moiyo p'uri,... gant'exa da mihscemda mat (Lk 24:30A) 3-3-3
 take-he bread break-he and O3-O3-give-he them
 'He took break,... broke it, and gave it to them.'
- b. moiyo p'uri,... gant'exa da miscemda (Lk 24:30B) 3-3-3
 take-he bread break-he and O3-O3-give-he
 'He took break,... broke it, and gave it to them.'
- (20) mihscemda (Mk 8: 6 *haemet=i*, *apud* Molitor 1952:113) 3-3-3
 O3-O3-give-he
 'he gave it to them'
- (21) ras zuris-sakmesa šesc'amebt k'acsa magas (John 18:29) 2-3-3
 what charge O3-witness man this
 'What accusation do you (PL) bring against this man?'

(21) above and (22) below also show that the third person object marker, *h-*, does not cooccur with the second person subject marker, also *h-*.

- (22) rameto ara hxedav p'irsa k'acisasa (Mk 12:14A) 2-3
 for NEG O3-look face man-GEN
 'for you do not look at the face of a man'

(I have glossed the *h-* here as 'O3' on the grounds that elsewhere the object prefix takes precedence over the subject, but in reality we cannot determine whether this is O3 or S2.)

Thus, occurrence of all the agreement prefixes of Old Georgian can be correctly described in terms of rule blocks, as proposed by Anderson (1982, 1984, 1986, 1992) and Halle and Marantz (1993), except that of the third person object marker *h-*. The prefix *h-* cooccurs (obligatorily, when triggered) with the first person subject prefix,

³ For the most part, this occurrence of two third person object prefixes is limited to the *xanmet'i* and *haemet'i* texts, but the text illustrated in (19b) is not in either of these categories.

v-, but not with other prefixes that otherwise appear to be in the same block with *v-*. The object prefix itself is an occasional exception to the last generalization.

These data show clearly that the rule block approach, while it makes many correct predictions, is not sufficient to account for the full variety found in natural languages.

2. Gender and Declension Class

Although gender and declension class are often treated as related categories in grammars, Aronoff (1994) claims that they are distinct and independent. This makes the specific prediction that from a historical point of view these categories are free to develop independently. If his claim is correct, we should expect to find languages that develop gender without declension classes and ones that develop declension classes without gender, and we should find languages that lose gender without losing declension classes and ones that lose declension classes without losing gender. On the basis of familiar Indo-European languages, this seems unlikely. Those, like English, which have lost gender, have also lost declension classes; languages such as Latin, Spanish, German, Russian, and others have kept both gender and declension classes. In this section I describe a language—Svan—that has developed declension classes without developing gender, and another—Udi—that has lost gender without losing declension classes.

2.1. What are Gender and Declension Classes?

As Aronoff (1994) points out, whether a language has grammatical gender can only be determined by looking at elements with which nouns occur, such as adjectives, determiners, and verbs. “A language will have gender if and only if we find in that language (1) some form of agreement with nouns that (2) involves a distinction among noun classes...” (Aronoff 1994:66).

In contrast, whether a language has declension classes can only be determined by examining the declension of a variety of nouns. “An inflection class is a set of lexemes which share a paradigm and whose word forms are alike in respect of the realization of the morphosyntactic properties in every cell” (Carstairs-McCarthy 1998:323).⁴ In a language with declension classes, the declension of some nouns is different from that of other nouns in ways that cannot be predicted on the basis of phonology.

The issue addressed here arises because in some familiar languages, such as Spanish and Latin, it appears that declension class is determined by gender. If declension class and gender are independent variables, as claimed by Aronoff, the two are free to change independently of one another.

2.2. Udi: Loss of Gender Without Loss of Declension Classes

Udi is a member of the North East Caucasian language family; it is a highly

⁴ Aronoff’s definition is similar: “An **inflectional class** is a set of lexemes whose members each select the same set of inflectional realizations” (1994:64).

divergent member of the Lezgian subgroup. Proto-Lezgian (PL) had four genders (Alekseev 1985), and indeed this is probably true of Proto-Northeast-Caucasian (PNEC), although in this case the number of genders is not entirely clear. Gender I in PL contained most nouns designating male humans, gender II most nouns designating female humans, and genders III and IV most nouns designating non-humans; the semantic distinction between the last two may have been animal vs. non-animal.

Alekseev's (1985:89-95) reconstruction of the gender markers includes both a strong and a weak set of markers of gender in PL; a modified version is presented in (23).

(23)		Strong	Weak
	I	* <i>r</i>	* <i>w</i>
	II	* <i>r</i>	* <i>r</i>
	III	* <i>b</i>	* <i>v</i>
	IV	* <i>d</i> ⁵	* <i>w</i>

Alekseev argues that the weak set are an innovation of PL, but others do not accept a distinction between strong and weak markers. Schulze (to appear) reconstructs a single set in the singular, and another set for the plural.

(24)		Singular	Plural
	I	* <i>w</i>	* <i>b</i>
	II	* <i>r/y</i>	* <i>b</i>
	III	* <i>b</i>	* <i>d</i>
	IV	* <i>d</i>	* <i>d</i> (Schulze 1992, to appear)

The important point for our purposes is that PL, the language from which Udi descends, possessed gender. There is also specific fossilized evidence of gender III in a number of Udi verbs (Jeiranišvili 1956). In general, in PL and PNEC, gender markers did not occur on nouns, but a handful of nouns preserve a fossilized gender marker, including Udi *viči* 'brother', which preserves the gender I marker **w/v* (cf. *xun-či* 'sister').

(25) illustrates gender agreement in Archi, where 'II' glosses gender II in the singular, and 'NE' is a numeral ending.⁶ (26) illustrates gender agreement in Rutul.⁷

(25)	ya-r	zon	L'annu-r	d-is	q'°le-r-u	dol:zu-r	došdur
	this-II	me.ABSL	loving-II	II-my	two-II-NE	elder-II	sisters(II)
	'these two elder sisters of mine who love me' (Kibrik 1994:342)						

⁵ I have changed Alekseev's **p*: to **b* and his **t*: to **d* since all of the languages that preserve the relevant category have *b* and *d* and none have *p*:, *p*, or *p*' in gender III or *t*:, *t*, or *t*' in gender IV. The NEC languages outside the Lezgian group also have *b* and *d*, not *p*: and *t*:, as gender markers.

⁶ [L] here represents a aspirated non-ejective lateral affricate (Kibrik 1994:300-301).

⁷ [x̥] here represents a voiceless dorso-uvular (unrounded) fricative.

- (26) ha riš hiŋdi r-iʔi (Alekseev 1994:238)
 this girl(II) good II-is
 ‘This girl is good.’

Udi has lost gender agreement in the verb, gender agreement in the adjective, and with these, gender as a grammatical category (Jeiranišvili 1971, Pančviže 1974, Schulze 1982, Harris 2002).

Turning to declension classes, we find the following major declension types in NEC languages today.

Table 1. Paradigm Structures Found in NEC Schemas

	Schema A	Schema B	Schema C	Schema D	Schema E	Schema F
Absl	ROOT	ROOT	ROOT	ROOT	ROOT	ROOT
Erg	ROOT-X	ROOT-W-X	ROOT-W	ROOT-W-X	ROOT	ROOT-X
Gen	ROOT-Y	ROOT-W-Y	ROOT-W-Y	ROOT-W	ROOT-Y	ROOT-X
Dat	ROOT-Z	ROOT-W-Z	ROOT-W-Z	ROOT-W-Z	ROOT-Z	ROOT-Z

Among these six schemas, B, C, and D all are instances of the so-called “dual base” declension, since all use one base for the absolutive and a different base for all other cases. NEC languages have an exuberant variety of locative cases, not included in Table 1, and they too are based on the second, “oblique” stem. At least one of the dual-base schemas is found in every member of the NEC family (Harris 2003). In schema C, the ergative case is the base for all others, while in D the genitive case fills this role. In schema B, all oblique cases (that is, all cases other than the absolutive) have the oblique stem formant plus an additional suffix. Schemas A, E, and F lack an oblique stem. Every NEC language has at least two of these schemas, apart from three of the Lezgian languages; even these three have different declensions.⁸ Schemas A, B, and C are all widespread in NEC languages.

(27) illustrates some of the variety in noun declensions in Tabassaran (Dyubek dialect, data from Magometov 1965:97-98, 104, 112-113.)

- (27) Absolutive š:aw ‘nail’ rug ‘earth’ xvar ‘mare’ maš ‘face’ tepe ‘heap’
 Ergative š:aw-di rug-zi xvar-u maš-nu tepe-j
 Genitive š:aw-di-n rug-zi-n xvar-a-n maš-na-n tepe-n
 Dative š:aw-di-s rug-zi-z xvar-a-z maš-na-z tepe-s

⁸ In Lezgi, variation in declension is manifested largely in differences of formants of the oblique stem and plural markers (Haspelmath 1993:71-80). In Aghul, declension classes are manifested in the variety of formants of the oblique stem, including *-di*, *ji* (*-j*), *-ni*, *-na*, *-la*, *-ra*, *-i*, *-u*, and *-a* (Magometov 1970:72). Khinalug seems to show no declension classes in the singular; plural markers are determined by semantics and by the phonological structure of the stem, but not in a way that would be predicted by ordinary phonological operations (Kibrik 1994:374-375; see also Kibrik et al. 1972: 50). It might, therefore, be argued on the basis of the plurals that Khinalug still has declension classes.

Differences among declension classes in Indo-European languages are usually based on differences in the case-number suffixes. In NEC languages this is less frequently the locus of declension differences; in many NEC languages there is little difference between the case suffixes, and sometimes the number suffixes, from one declension class to another. The differences among the different paradigm structures or schemas in Table 1 are one of the loci of differences among declension classes in many NEC languages. A third locus of declension class differences may be differences among the formants of the oblique stem. Magometov notes that the following oblique stem formants are found in Tabassaran: *-i*, *-di*, *-ri*, *-li*, *-ni*, *-u*, *-ru*, *-nu*, *-ji* (1965:99). Thus, in NEC languages, declension classes may vary according to (i) paradigm structure, as in Table 1, (ii) oblique formant, (iii) formant of number, or (iv) formant of case.

In some Lezgian languages, there is some correlation between declension class and gender. For example, In Tsakhur, nouns of genders I and II have an ergative case in *-e*, while those of genders III and IV have an ergative in *-n* or *-Vn* (Schulze 1997: 30). In Archi, different genders usually take different oblique markers (Mikailov 1967:44-47). In some NEC languages, gender markers appear to be part of declension. Consider the noun ‘dog’ in Kryz.

- (28) Absl xwar ‘dog’
 Erg xwar-ə-r
 Gen xwar-ə-ŋ
 Dat xwar-ə-s (Topuria 1960:442)

($\langle \hat{j} \rangle$ is used here to represent a voiced alveopalatal affricate.) While *xwar-ə-ŋ* is the genitive ‘dog’s’, with a different possessed noun we get *xwar-ə-d*, where *-ŋ* and *-d* are gender markers (Topuria 1960:442). Thus we cannot absolutely rule out the possibility of some correlation between gender and declension in PL, but the sheer variety of correlations found in the daughter languages makes this unlikely.

While other NEC languages, as described in the literature, have two or three of the schemas shown in Table 1, Udi has five, shown in Table 2. The paradigm structures in this table represent the major declension classes in Udi. Four oblique formants are used, *-en* (reduced to *-n*), *-in*, *-e*, and *-j*, but the last three have restricted distribution. There is variation in markers of number, which are not illustrated in the data presented here; nouns may form the plural with *-ux* (*-uγ* when followed by another suffix), *-rux* (*-ruγ*), *-rxox* (*-rx*), or *-mux* (*-muγ*). There is quite a bit of variation among markers of the genitive and dative cases. The genitive uses the markers *-i*, *-j*, *-aj*, *-ej*, *-in*, *-un*. The dative may be *-ax*, *-ex*, *-ix*, *-ux*. (The *x* may optionally be omitted, but this is not part of declension variation.) Thus, Udi declension classes exhibit variation in all of the four dimensions according to which noun declension varies in NEC languages. Additional variation is illustrated in Appendix A.

Table 2. Declensions of Common Noun, Singular in Udi (data from Jeiranišvili 1971:53-62, Sixaruliže 1987).

	Declension A	Declension B	Declension C	Declension D	Declension E
Nom	šumak’	me	muz	t’ajna	pul
(Absl)	‘hen’	‘knife’	‘language’	‘millet’	‘eye’
Erg	šumak’-en	me-n-en	muz-en	t’ajn-in-en	p-in
Gen	šumak’-un	me-n-ej	muz-n-aj	t’ajn-in	p-in
Dat	šumak’-ax	me-n-ax	muz-n-ux	t’ajn-in-ax	p-ex
Allat	šumak’-ač’	me-n-ač’	muz-n-uč’	t’ajn-in-ač’	p-eč’
Super	šumak’-al	me-n-al	muz-n-ul	t’ajn-in-al	p-el

While Proto-Lezgian had both gender and declension class, Udi has lost the former but not the latter. This provides diachronic evidence that gender and declension class are independent variables in language.

2.3. Svan: Addition of Declension Class Without Addition of Gender

Common Kartvelian (CK) had neither declension class (Mač’avariani 1970, 1985, Schmidt 1976, Harris 1985:65-92) nor gender. None of the daughter languages has gender, and there is no reason to believe that this category was ever found in the Kartvelian languages.⁹ Among the daughter languages none except Svan has declension classes, and these can be shown to be secondary in Svan (Šaraženize 1955, Mač’avariani 1960, 1985, Kaldani 1974, Harris 1985:69-72, 78-79). In §2.3.1, I show that there is no gender in Kartvelian, and in §2.3.2 that there are no declension classes. In §2.3.3, I describe the development of declension in Svan.

2.3.1. Agreement in Common Kartvelian

Given that gender can only be identified by looking at agreement of other elements with nouns, we should look at agreement in Kartvelian languages; (29) illustrates agreement in Old Georgian, and the other languages have somewhat reduced versions of this.

- (29) da movid-es mona-ni igi mamasaxlis-isa-ni (Mt 13:27)
 and come-3PL servant-PL.NOM the.NOM.SG householder-GEN-PL.NOM
 ‘And the servants of [the] householder came.’

Here the verb agrees in person and number with its subject, ‘the servants of the householder’; the article *igi* in this instance agrees in case but not number with the

⁹ Čikobava (1942) assumes that an ancestor of CK had gender on the basis of his more general assumption that Kartvelian is related to the North East Caucasian and North West Caucasian language families. The latter assumption is unfounded, and no convincing evidence has ever been presented to support it. The assumption that an ancestor of CK had gender is also unfounded.

head noun *monani* ‘servants’; and the possessor, ‘householder’, agrees in case and number (*-ni* ‘PL.NOM’) with its head, *monani*. In general, modifiers agree with head nouns in terms of case and number, while verbs agree with subjects, direct objects, and indirect objects in person, number, and grammatical role, as shown above in §1. There is no grammatical gender in Georgian or its sister languages.

2.3.2. Declension in Common Kartvelian

Old Georgian nouns were declined in the singular as shown in (30) (all data from Imnaišvili 1957:27, 42, 86, 87, 116, 117).

(30) Old Georgian

Absl	gul	kmar	zma	ze	c’q’aro	ru
Nom	gul-i	kmar-i	zma-j	ze-j	c’q’aro-j	ru-j
Erg	gul-man	kmar-man	zma-man	ze-man	c’q’aro-man	ru-man
Dat	gul-sa	kmar-sa	zma-sa	ze-sa	c’q’aro-sa	ru-sa
Gen	gul-isa	kmar-isa	zm-isa	z-isa	c’q’aro-jsa	ru-jsa
Inst	gul-ita	kmar-ita	zm-ita	z-ita	c’q’aro-jta	ru-jta
Adv	gul-ad	kmar-ad	zm-ad	ze-d	c’q’aro-d	ru-d
	‘heart’	‘husband’	‘brother’	‘son’	‘spring’	‘creek’

The nouns in (30) accurately represent the variety of declension of common nouns in Old Georgian; there are few differences. The second noun, *kmar* ‘husband’, undergoes syncope (alternation of *kmar* ~ *kmr*), and nouns that undergo this process must be marked in the lexicon. All other differences are completely phonologically determined: nominative case *-i* becomes non-syllabic after a vowel; *i* in the genitive and instrumental case markers becomes non-syllabic after back rounded vowels, etc. Declension in the plural and the collective, though not illustrated here, is equally uniform. These predictable differences do not constitute different declensions, and Old Georgian has no declension classes.

Laz declension is illustrated in (31) (all data from Čikobava 1936:44-48; see also Kutscher et al. 1995). The paradigms in (31) omit two innovative cases, which would add nothing to our discussion. There is essentially no variation in Laz declension; neither stems nor affixes change. Closely related Mingrelian is similar.

(31) Laz

Nom	k’oči ‘man’	buxa ‘nail’	k’učxe ‘foot’	orzo ‘chair’	k’at’u ‘cat’
Erg	k’oči-k	buxa-k	k’učxe-k	orzo-k	k’at’u-k
Dat	k’oči-s	buxa-s	k’učxe-s	orzo-s	k’at’u-s
Gen	k’oči-ši	buxa-ši	k’učxe-ši	orzo-ši	k’at’u-ši
Inst	k’oči-te	buxa-te	k’učxe-te	orzo-te	k’at’u-te

Declension in CK was essentially similar to that in Old Georgian and did not involve declension classes (Harris 1991:23-28). Three opinions of the reconstruction of the declension of common nouns are presented in (32); none involves declension classes.

(32) Reconstructed CK Noun Declension¹⁰

Nom	*Ø	*i	*i/y, Ø
Erg	*d/*n	*ad, *d, *n	*ad/d, *n(a)
Dat	*s	*s	*s
Gen	*is ₁	*es ₁ , *is ₁ (*s ₁)	*es ₁ /is ₁
Inst	*(i)s ₁ t		
Adv	*d		
	(Harris 1985:90)	(Mač'avariani 1970)	(Mač'avariani 1985)

I am convinced by the arguments in Mač'avariani (1985) that CK had only four cases.

2.3.3. Svan Innovations

Šaraženize (1955) identifies five declensions; (33) provides the singulars, slightly modified according to the findings of Mač'avariani (1985).¹¹

(33)	Declen I	Declen II	Declen III	Declen IV	Declen V
Nom	txwim	čäž	ala	māre	ara
Erg	txwim-d	čäž-w-em	amnēm	mārad/mārēm	arēm/arāmd/arāmnēm
Dat	txwim-s	čäž-w	amis/ amas/alas	māra	arām
Gen	txwim-iš	čäž-w-(e)m-iš	amīš/amša	mārēm-iš	arēmiš
Inst	txwim-šw	čäž-w-š	amnoš	māroš	arāmšw
Adv	txwim-d 'head'	čäž-w-d 'horse'	amnār(d) 'this (one)'	mārad 'man'	arāmd 'eight'

Declension I is inherited directly from CK noun declension, and declension III from CK pronoun declension. Cognate to Svan declension III are the pronoun declensions illustrated in (34).

(34)	Old Georgian		Laz
	Proximate	Remote	Proximate
Nom	ese 'this (one)'	igi 'that (one)'	aya 'this (one)'
Erg	aman	man	amuk
Dat	amas	mas	amus
Gen	amis	misa	amuši

Because Šaraženize's declension III is limited to pronouns, it would not be considered a declension class by some morphologists. We can, at the very least, say that it is not a noun declension class, and we are thus left with four declension classes in Svan, only one of these directly inherited.

¹⁰ The sound [*s₁] follows the reconstruction in Gamq'relize and Mač'avariani (1965); this sound had the reflex [s] in Georgian and [š] in the other languages.

¹¹ Šaraženize (1955) lists subtypes, and Gudjedjani and Palmaitis (1985) also expand this, but for our purposes, Šaraženize's major types are sufficient.

The declension type seen most clearly in declension II (but also found in declensions IV and V) is the “dual base” type found also in Northeast Caucasian languages. Historically, Svan has been in contact with several languages of this family.

Mač’avariani (1960) was the first to explain the origin of Svan dual base declensions. Though Svan was affected by contact with NEC languages that have this unusual declension type (also found however in many Uralic languages), Svan developed these through its own internal diachronic processes. In Pre-Svan, possibly even as far back as CK, definite articles followed nouns. This is the order attested in Old Georgian, where definite articles were frequent. The definite article in Svan was historically the demonstrative ‘this’, illustrated in declension III of (33). It has long been known from many unrelated languages that definite articles often originate in this way, and this has been described in detail by Greenberg (1978) and elsewhere; the same sources indicate that the article in turn frequently is reanalyzed as case marking or as gender (noun class) marking. On this basis we can assume the origin indicated in (35) (cf. (33) above).

(35)	Nom	māre	<	*māre	<	*māra i...	<	*māra i...	‘the man’
	Erg	mārēm	<	*mārāman	<	*māra aman	<	*māra-n aman	
	Dat	māram	<	*mārāmas	<	*māra amas	<	*māra-s amas	
	Gen	mārēm-iš	<	*mārāmīš	<	*māra amīš	<	*māra-iš amīš	

While the attested forms in (35) generally represent the Upper Bal dialect, the dative is from the Lent’ex dialect instead (cf. UB *māra*). It is likely that the nominative form of the demonstrative contained *i*, but the form cannot be reconstructed with confidence. In the nominative and genitive, *i* conditioned umlaut to *ä*, then to *e*. It is assumed here that paradigm leveling accounts for the *e* (*ē*) in the ergative. Mač’avariani (1960, 1985) has pointed out that the form *amas* probably represents the more direct reflex of the CK dative pronoun form, while *alas* (in (33)) is probably restructured on the basis of the nominative, *ala*. The instrumental and adverbial forms have probably developed more recently, out of the ergative (Mač’avariani 1985). Among the attested forms of the genitive of ‘this’, *amīš* probably most directly reflects the CK form (cf. the Old Georgian genitive in (30)). Thus, Mač’avariani (1960) has shown how Svan declension IV developed, and Harris (1985:69-79) related this to known universals. It is likely that declensions II and V originated in a similar way. (For other points of view, see P’almait’i 1979 and Šaraženize 1983.)

2.3.4. Summary

Thus, Svan has innovated the use of declension classes. The fact that these appear entirely independently of gender adds confirmation to the claim that gender and declension class are independent characteristics.

3. Conclusions

I have argued here that we can learn more about natural language by looking at complex systems than we learn from simpler ones, and I have observed that in some instances older attested languages provide the greater complexity needed. In particular, Georgian verb prefixes, which have been used to support several different morphological theories, are more complex in Old Georgian than in the modern language. While the approach of blocks of rules, as outlined both in Anderson (1992) and in Halle and Marantz (1993), makes a number of correct predictions for Old Georgian, it cannot easily accommodate the more complex facts of Old Georgian.

I have also shown that in some instances a theoretical claim can be tested diachronically. The claim that gender and declension class are independent of one another (Aronoff 1994 and elsewhere) is confirmed by the demonstration that gender but not declension class has been lost historically in Udi, and that declension class but not gender has developed historically in Svan.

Appendix: Major Sub-types of Udi Declension (Common Noun, Singular) (Jeiranišvili 1971:53-62, Sixaruliže 1987)

Table 3. Sub-types of Declension A, Singular

	A1	A2	A3	A4	A5	A6	A7	A8
N	šumak’ ‘hen’	äyz ‘village’	k’avaş ‘meadow’	γar ‘boy’	čur ‘cow’	nana ‘mother’	viči ‘brother’	xə ‘dog’
E	šumak’-en	äyz-en	k’avaş-en	γar-en	čur-en	nana-n	viče-n	xə-j-n
G	šumak’-un	äyz-un	k’avaş-un	γar-i	čur-ej	nana-(j)	viče-j	xə-j
D	šumak’-ax	äyz-ix	k’avaş-ex	γar-ax	čur-ax	nana-(x)	viče-x	xə
A	šumak’-ač’	äyz-ič’	k’avaş-eč’	γar-ač’	čur-ač’	nana-č’	viče-č’	xə-č’
S	šumak’-al	äyz-il	k’avaş-el	γar-al	čur-al	nana-l	viče-l	xə-l

Table 4. Sub-types of Declension B, Singular

	Declension B1	Declension B2	Declension B3	Declension B4	Declension B5
Nom (Absl)	me ‘knife’	haso ‘cloud’	ga ‘place’	č:o ‘face’	c’i ‘name’
Erg	me-n-en	haso-n-en	ga-n-en ¹²	č:o-e-n	c’i-j-en
Gen	me-n-ej	haso-n-un	ga-n-ej	č:o-e-j	c’i-j-ej
Dat	me-n-ax	haso-n-ax	ga-n-ux	č:o-e-x	c’i-j-ex
Allat	me-n-ač’	haso-n-ač’	ga-n-uč’	č:o-e-č’	c’i-j-eč’
Super	me-n-al	haso-n-al	ga-n-ul	č:o-e-l	c’i-j-al

Many phonological variants of Declension C exist, as the oblique formant *-n-* assimilates to preceding alveolars—*r*, *l*, *d*, *t*’, *t*.

¹² The noun *ga* ‘place’ has a second declension, with the oblique formant *-l-* instead of *-n-*.

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