

KARTVELIAN AND THE TYPOLOGY OF MORPHOLOGICAL BLOCKING

Outline of Talk

In this talk, we will discuss a few issues surrounding morphological blocking in Kartvelian languages:

- What is morphological blocking? Do all Kartvelian languages have the same patterns of morphological blocking?
- Does the same kind of morphological blocking exist in other languages, and if so how?
- What unites all cases of morphological blocking? Is morphological blocking necessarily connected to hierarchical alignment?

I. Morphological Blocking in Kartvelian

- Traditional Item-and-Arrangement morphological theory postulates an essentially **lexical** and **incremental** view of morphemes: they are separately listed in the lexicon, and they are added one by one.
- Templatic approaches to morphology challenge this view by stipulating the internal relationships of morphs to one another (**realizational** and usually also **inferential**).

Table 1. Template for the Georgian verb

1a	1b	2	3	4	5	6	7	8	9	10	11
Preverbs	Ventive	Personal Prefixes	Preradical Vowel	ROOT	II. Conj. (PASS)	Thematic suffix	CAUS	Imperfect, Cond., Conj.	Screeve marker	3 rd Person	-t Plural

- These approaches allow for the possibility of (1) outward-bound dependencies, and (2) morphological blocking within templatic slots.
- One of the most well-known cases of MB in the whole typological literature comes from Georgian (see e.g. Anderson 2001), in which subject and object prefixes compete for realization in the same slot on the verb:

Table 2. Aorist Screeve Paradigm of *xedva* ‘see’

		<i>Obj.</i> →					
<i>Subj.</i> ↓		<i>1st sg</i>	<i>pl</i>	<i>2nd sg</i>	<i>Pl</i>	<i>3rd sg</i>	<i>Pl</i>
<i>1st sg</i>				g-nax-e	g-nax-e-t	v-nax-e	v-nax-e
<i>Pl</i>				g-nax-e-t	g-nax-e-t	v-nax-e-t	v-nax-e-t
<i>2nd sg</i>		m-nax-e	gv-nax-e			nax-e	nax-e
<i>Pl</i>		m-nax-e-t	gv-nax-e-t			nax-e-t	nax-e-t
<i>3rd sg</i>		m-nax-a	gv-nax-a	g-nax-a	g-nax-a-t	nax-a	nax-a
<i>Pl</i>		m-nax-es	gv-nax-es	g-nax-es	g-nax-es	nax-es	nax-es

- (1)
- | | | |
|---------------|---|------------------------|
| g- [2] | > | v- [1] |
| -es [3PL AOR] | > | -a-t [3SG AOR, 1/2 PL] |
| -a [3SG AOR] | > | -e [1/2 AOR] |

- This system has three salient features:
 - (1) Some affix competition is resolved by Paninian principles (m- vs. v-);
 - (2) Some affixes are underspecified for features (-t plural suffix)
 - (3) Some affixes have the same number of features and are extrinsically ordered (g- vs. v-)
- These principles of MB apply even in inverse paradigms:

Table 3. Pluperfect Screeve Paradigm of *xedva* ‘see’

		Obj. →					
		1 st sg	pl	2 nd sg	Pl	3 rd sg	Pl
1 st sg				m-e-nax-e	m-e-nax-e-t	m-e-nax-a	m-e-nax-a
	Pl			gv-e-nax-e-t	gv-e-nax-e-t	gv-e-nax-a	gv-e-nax-a-t
2 nd sg		g-e-nax-e	g-e-nax-e			g-e-nax-a	g-e-nax-a
	Pl	g-e-nax-e-t	g-e-nax-e-t			g-e-nax-a-t	g-e-nax-a-t
3 rd sg		v-e-nax-a	v-e-nax-a-t	e-nax-e	e-nax-e-t	e-nax-a	e-nax-a
	Pl	v-e-nax-a-t	v-e-nax-a-t	e-nax-e-t	e-nax-e-t	e-nax-a-t	e-nax-a-t

- Note that although this system is almost identical (*modulo* inversion) to that of the aorist, the behavior of some affixes differs (-t plurals).
- What both kinds of monotransitive paradigms have in common is that although they use a kind of hierarchical algorithm (extrinsic ordering) to determine which affixes are used, they do not have hierarchical syntax in that each affix maps onto a specific grammatical function.
- Georgian is usually considered to have a Split-S alignment system, both in verbal agreement and in nominal case. However, evidence from ditransitives suggests a subsystem in which the same system of MB has a **HIERARCHICAL** alignment:

- (2) **PERSON-FUNCTION CONSTRAINT:** 3 OBJ1; 1 or 2 OBJ2
- | | | | |
|----------|-------|------------------------|----------|
| *vano-m | (šen) | še-a-dar-a | givi-s |
| Vano-ERG | 2Sg | PVB-PRV-compare-3SGAOR | Givi-DAT |
- ‘Vano compared you to Givi’

- (3) a. **TAVI-CONSTRUCTION STRATEGY**
- | | | | | |
|----------|--------------|--------------|------------------------|----------|
| vano-m | šen-i | tav-i | še-a-dar-a | givi-s |
| Vano-ERG | 2SGPOSS-NOM | head-NOM | PVB-PRV-compare-3SGAOR | Givi-DAT |
- ‘Vano compared you to Givi’ (Harris 1981: 49)

b. **SECOND-OBJECT AGREEMENT STRATEGY** (available in some dialects)

- | | | | |
|----------|-------|--------------------------|----------|
| vano-m | (šen) | še-g-a-dar-a | givi-s |
| Vano-ERG | 2Sg | PVB-2-PRV-compare-3SGAOR | Givi-DAT |
- ‘Vano compared you to Givi’ (Vamling 1988: 316)

- It is noteworthy that other languages in the family have similar, but not identical, kinds of MB:

LAZ (Lacroix 2009: 300)

Table 4. Laz present paradigm of *dzir*- ‘see’ (series I and II)

Subj. ↓	Obj. →					
	1 ST SG	PL	2 ND SG	PL	3 RD SG	PL
1 st sg			g-dzir-om	g-dzir-om-t	b-dzir-om	b-dzir-om
PL			g-dzir-om-t	g-dzir-om-t	b-dzir-om-t	b-dzir-om-t
2 nd sg	<u>m</u> -dzir-om	<u>m</u> -dzir-om- <u>t</u>			dzir-om	dzir-om
PL	<u>m</u> -dzir-om- <u>t</u>	<u>m</u> -dzir-om- <u>t</u>			dzir-om-t	dzir-om-t
3 rd sg	<u>m</u> -dzir-om- <u>s</u>	<u>m</u> -dzir-om- <u>an</u>	g-dzir-om-s	g-dzir-om-an	dzir-om-s	dzir-om-an
PL	<u>m</u> -dzir-om- <u>an</u>	<u>m</u> -dzir-om- <u>an</u>	g-dzir-om-an	g-dzir-om-an	dzir-om-s	dzir-om-an

- (4) g- [2] > b- [1]
 -an [3PL] > -t [1/2 PL]

SVAN (Palmaidis & Gudjedjiani 1986)

Table 5. Svan present paradigm of *dgär*- ‘kill’

Subj. ↓	Obj. →						
	1 ST SG	PL [EXCL]	PL [INCL]	2 ND SG	PL	3 RD SG	PL
1 ST SG				j-a-dgär-i	j-a-dgär-i-x	xw-a-dgär-i	xw-a-dgär-i
PL [EXCL]				j-a-dgär-i-d	j-a-dgär-i-d	xw-a-dgär-i-d	xw-a-dgär-i-d
PL [INCL]				j-a-dgär-i-d	j-a-dgär-i-d	l-a-dgär-i-d	l-a-dgär-i-d
2 ND SG	m-a-dgär-i	n-a-dgär-i	gw-a-dgär-i			x-a-dgär-i	x-a-dgär-i
PL	m-a-dgär-i-d	n-a-dgär-i-d	gw-a-dgär-i-d			x-a-dgär-i-d	x-a-dgär-i-d
3 RD SG	m-a-dgär-i	n-a-dgär-i	gw-a-dgär-i	j-a-dgär-i	j-a-dgär-i-x	a-dgär-i	a-dgär-i
PL	m-a-dgär-i-x	n-a-dgär-i-x	gw-a-dgär-i-x	j-a-dgär-i-x	j-a-dgär-i-x	a-dgär-i	a-dgär-i-x

- (5) j- [2] > xw- [1]
 -d [1/2 PL] > -x [PL]
 n- [1 PL EXCL] > x- [2]
 gw- [1 PL INCL] > x- [2]

- To summarize about Kartvelian:
 - MB is similar but not the same across languages and paradigms;
 - The hierarchies created are thus not hard-wired into the system, but **epiphenomenal**;
 - MB is very conservative; the same or similar patterns are conserved over long stretches of linguistic time.

II. Morphological Blocking outside Kartvelian

- MB is typologically an unusual phenomenon usually connected to polysynthesis: where polysynthesis exists however MB often follows.
- Almost all Algonquian languages also have MB in multiple different parts of verbal and nominal paradigms. With verbal person prefixes, second person outranks first:

MESKWAKI (Algonquian; Dahlstrom Ms.)

(6) Prefix hierarchy: 2 > 1

- | | |
|---|---|
| a. ke-wa·pam-i
2-look.at-1.OBJ
'You look at me.' | b. ke-wa·pam-en-e
2-look.at-2.OBJ-EP
'I look at you.' |
| c. ne-wa·pam-a·-w-a
1-look.at-DIR-3-3SG.AN
'I look at him.' | d. ne-wa·pam-ekw-w-a
1-look.at-INV-3-3SG.AN
'He looks at me.' |

- However, other templatic slots have different hierarchies, so one cannot say that there is a global hierarchy without further clarification:

(7) Suffix hierarchy: 1PL > 2PL

- | | |
|--|--|
| a. ke-wa·pam-i-pena
2-look.at-1.OBJ-1PL
'You (SG/PL) look at us' | b. ke-wa·pam-i-pwa
2-look.at-1.OBJ-2PL
'You (PL) look at me' |
|--|--|

- The plural suffixes *-pena* and *-pwa* share the same slot on the verb, but only *-pena* is realized in case of conflict.
- So: *even within one language, there is variation in the hierarchization of person features.*
- What's more, different languages behave differently, so one cannot make generalizations about the family as a whole:

Table 6. Prominence Hierarchies in Algonquian Languages (table from Macaulay 2005: 21)

	Possessive Prefixes	Verbal Prefixes	Plural Suffixes	Theme Signs
Menominee	2 > 1	2 > 1	1 > 2	SAP > 3
Cree (Pattern 1)	2 > 1	2 > 1	1 > 2	SAP > 3
Cree (Pattern 2)	2 > 1	2 > 1	2 > 1	SAP > 3
Micmac	2 > 1 & 1 > 2	2 > 1	1 > 2	SAP > 3
Blackfoot	2 > 1	2 > 1	1 > 2	(1 > 2)
Arapaho	2 > 1	2 > 1	no ranking	(SAP > 3)

- Another example of morphological blocking comes from the North Caucasus: Icarí Dargwa, where the choice of agreement depends on a referential hierarchy:

ICARI DARGWA (Nakh-Daghestanian; Sumbatova and Mutalov 2005)

- (8) a. du-l u uc-ib=di 1 > 2
 1SG.ERG 2SG.ABS catch.M.PFV-PRET=2SG
 ‘I caught you.’
- b. du-l Murad uc-ib=da 1 > 3
 1SG.ERG Murad catch.M.PFV-PRET=1SG
 ‘I caught Murad.’

Table 7. Icarí Dargwa person markers in the preterite (table from Jacques et al)

	1P	2P	3P
1A		uc-ib=di	uc-ib=da
2A	uc-ib=di		uc-ib=di
3A	uc-ib=da	uc-ib=di	uc-ib

- Here, MB takes the form of blocking first person features (*-da*) when second person features are also present (*-di*).
- Icarí Dargwa is thus like Algonquian in having agreement for whichever argument is higher on the hierarchy (2 > 1 > 3), but unlike Algonquian and like Georgian in having no overt sign of inverse or direct marking.
- Unlike both languages, Icarí Dargwa only ever overtly agrees with one argument, not two.

SURINAM CARIB (Gildea 1998: 16)

	1P	2P	1+2P	3P	S _a
1A		k-		s-	∅-
2A	k-			m-	m-
1+2A				kis-	küt-
3A	y-	ay-	k-	n-	n-
S _o	y-	ay-	k-	n-	

- Like the other languages, in this language, 2 > 1, but with the twist that the same affixes that could indicate MB for transitive verbs are also often used in intransitive verbs where they indicate nothing of the sort.
- So: is Carib a language with hierarchical alignment, or Split-S? The answer is that it is **both**.
- Like MB in Georgian, MB in Carib is a symptom of the fact that linguistic hierarchies are the epiphenomena of specific patterns in morphology and in syntax: there is no stipulated global hierarchy of features as such (Silverstein 1976)

III. Consequences and Conclusions

- From a historical perspective, MB is **conservative**: the same features usually block the same other features across languages and can persist easily over many millennia (Kartvelian and Algonquian)

- However: MB is **not one thing but many**, even within single languages (Algonquian family)
- Also: MB blocking **can arise in families where it is otherwise unknown** (in Icaric Dargwa, Lak and some other Daghestanian languages which have developed person agreement)
- MB is **not strictly connected to hierarchical alignment** in syntax (Georgian monotransitive predicates);
- MB does however commonly co-occur with hierarchical alignment (Georgian ditransitive predicates; Algonquian, Dargwa), because **it is a necessary but not sufficient condition for hierarchical verb agreement**.
- Finally, MB provides evidence for two important generalizations about natural language grammars that are sometimes contested:
 - the morphological structure of words is not directly isomorphic to their distribution in syntax (**morphology is autonomous**);
 - feature hierarchies are the **epiphenomena** of specific patterns in morphology and syntax, not the result of a stipulated rule.

IV. Questions for Future Research

- How much variation across Kartvelian languages and dialects is there? Prediction: some slots are more unstable than others.
- Typologically, how unusual is Georgia's mixed system? Is there any evidence for hierarchical alignment in other Kartvelian languages and dialects?

WORKS CITED

- Anderson, S.R., 2001. 'On some issues in morphological exponence.' In *Yearbook of Morphology 2000* (pp. 1-17). Springer Netherlands.
- Dahlstrom, Amy. Ms. *A Grammar of Meskwaki*. UChicago.
- Gildea, S., 1998. *On reconstructing grammar: comparative Cariban morphosyntax* (No. 18). Oxford University Press on Demand.
- Jacques, G. and Antonov, A., 2014. 'Direct/inverse systems.' *Language and linguistics Compass*, 8(7), pp.301-318.
- Lacroix, R., 2009. *Description du dialecte laze d'Arhavi (caucasique du sud, Turquie)*. *Grammaire et textes*.
- Macaulay, M., 2005. 'On the 2 > 1 prominence hierarchy of Algonquian.' *LSO working papers in linguistics*, 5, pp.1-24.
- Palnaitis, M.L. and Gudjedjiani, C., 1986. *Upper Svan: Grammar and texts*. Mokslas, Vilnius.
- Silverstein, M., 1976. 'Hierarchy of features and ergativity' (pp. 112-171). Humanities Press.
- Vamling, K., 1988. 'A feature-based analysis of Georgian morphology. Case study: object.' *Studia Caucasologica* 309-319.

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