

Segments.

A Journal of
Constructed Languages



Verbal Constructions

Issue 02

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Preface

Welcome to Segments, A Journal of Constructed Languages, and the official publication of the /r/conlangs subreddit team. Within this journal, you will find articles produced by members of our community.

This Issue is focused on **Verbal Constructions**. Conlangers were invited to submit articles about some aspect of the verbal system in their language. As the very concept of a 'verb' is up for debate, we opted for 'verbal constructions' to allow for descriptions of systems that might not fit neatly into the prototypical idea of a 'verb.' We have a wonderful collection of articles here that reflects the passion, creativity, and expertise found in our community!

We hope you enjoy this Issue, and we hope you will add your voice and perspective to future Issues in order to make Segments an even more wonderful and comprehensive resource!

Please email segments.journal@gmail.com if you would like to contribute.

Acknowledgements

We would like to send a heartfelt thank you to our wonderful community for supporting this creative endeavor. To our contributors, without whom Segments would never be the success that it has been! To our team of editors, who spent countless hours reading through submissions and giving feedback and suggestions to our contributors. To our formatters, who worked tirelessly to \LaTeX ify documents and troubleshoot the publication. To our readers, for their support and encouragement. To all involved with Segments, thank you for making it the amazing community resource it is!

Peace, Love, & Conlanging

- Segments Team

Segments.

Verbal
Constructions

r/conlangs

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Showcases

01	New Periphrastic Verb Constructions in Middle Mtsqrveli	1
02	Asa Serial Verb Construction	11
03	The Amniosian Language	23
04	Multiverb Constructions in Hapi	31
05	Lexical Aspect in Yajée	45
06	Being and doing in Tengkolaku	51
07	Verbs In Qo Yah Alimecar	63
08	Bjark'ümii Verbs	67
09	Roots in gan Minhó	77
10	Encoding modernity in a lexicon's organisation	91
11	South Aeranid Alignment	97
12	Verbal Agreement in Žskđ	119
13	Verbs and Verbal Constructions In Akhazad	123
14	The Flow of Mercury	131
15	A Unified View of the Anroo Suffix -ra	135
16	Case Marking Paradigms in Tabesj	151
17	Analyzing Phrasal and Clausal Anaphora in Hiding Waters	159
18	The TAM System of Ahale	177
19	Noun Incorporation in Mā Sip	189
20	Atlaq Mode Prefixes	199
21	Akiatu's resultatives	207

Abbreviations

1	First person	ATB	Autobenefactive
2	Second person	ATTR	Attributive
3	Third person	AUG	Augmentative
A	Agent	AUX	Auxiliary
ABL	Ablative	BEFORE	Before
ABS	Absolutive	BEN	Benefactive
ABST	Abstraction	C	Complementizer
ACC	Accusative	CAUS	Causative
ACT	Active voice	CESS	Cessative
ADC	Adjunct	CHANGE	Change of State
ADESS	Adesive	CL	Classifier
ADJ	Adjective	CMP	Complement
ADV	Adverb	CMPL	Completive
AFF	Affirmative	COL	Collective Plural
AGAIN	Again	CON	Construct
AHM	Adult Human Classifier	COND	Conditional
ALL	Allative	CONJ	Conjunction
AN	Animate	CONNeg	Connegative
AND	Andative	COORD	Coordination
ANTIP	Antipassive	COP	Copula
AOR	Aorist	CP	Complement phrase
APPL	Applicative	CVB	Converb
		CYC	Cyclical gender

DAT	Dative	FAM	Familiar
DEADLINE	Deadline	FIN	Finite Verb
DECL	Declarative	FOL	Following stance
DEF	Definite	FOOD	Food
DEIC	Deictic	FOR	Formal
DEL	Delimitative	FRUST	Frustrative
DEM	Demonstrative	FUT	Future
DEP	Dependent	GEN	Genitive
DESID	Desiderative	GER	Gerund
DET	Determiner	GNO	Gnomic
DETR	Detransitivizer	GNR	General
DIM	Diminutive	H	Human
DIR	Direct	HAB	Habitual
DIS	Distal/Distant	HON	Honorific
DO	Direct Object	HORT	Hortative
DP	Determiner phrase	HYP	Hypothetical Future
DS	Different-subject	IDEO	Ideophone
DU	Dual	IMP	Imperative
DUM	Dummy pronoun	INAL	Inalienable Possession
DUR	Durative	INAN	Inanimate
EGO	Egophoric	INC	Inceptive
EMPH	Emphatic	INCH	Inchoative
ERG	Ergative	INCL	Inclusive
ESS	Essential aspect	IND	Indicative
EXCL	Exclusive	INDEF	Indefinite
EXIST	Existential	INF	Infinitive
EXP	Experiential; Direct Evidential	INFER	Inferential
EXPL	Expletive	INS	Instantive
F	Feminine	INSTR	Instrumental

INT	Intermediate tense	NVL	Nonvolitional
INV	Inverse	O	Object
IPFV	Imperfective	OBL	Oblique
IRR	Irrealis	OBLIG	Obligatory
IT	Itive	OBV	Obviative
JUSS	Jussive	OPT	Optative
L	Location anaphor	P	Patient
LAT	Lative	PCP	Participle
LCN	Location Agreement	PER	Personal
LD	Leading stance	PERF	Perfect
LOC	Locative	PERL	Perlative
M	Masculine	PERM	Permissive
MAT	Material	PF	Patient Focus
MID	Middle voice	PFV	Perfective
MIN	Minimal	PL	Plural
N	Neuter	PLACE	Place name
NAME	Personal name	PN	Pronoun, Proper noun
NEG	Negative	POL	Polite
NEXT	Next	POSS	Possessive
NFEM	Non-feminine	POT	Potential
NFOR	Informal	PP	Preposition phrase
NFUT	Non-Future	PRED	Classifier for predators
NML	Animal Classifier	PRF	Perfect
NMLZ	Nominalizer	PRIV	Privative
NOM	Nominative	PROG	Progressive
NPR	Impersonal	PROP	Proper article
NPST	Non-Past	PROX	Proximal
NRZ	Non-realized	PRS	Present
NTR	Intransitive	PRSP	Prospective

PST	Past	SG	Singular
PSV	Passive	SIM	Simple aspect
PTV	Partitive	STAT	Stative
PUNCT	Punctual	STR	Abstraction Classifier
PV	Preverb	SUB	Subordination particle
Q	Interrogative	TEL	Telic
RA	'ra' voice	TEM	Temporary gender
RDP	Reduplication	TOP	Topic
REC	Recent/Near tense	TR	Transitive
REFL	Reflexive	TRI	Trial
REL	Relative	TRN	Transnumeral
REM	Remote tense	TRZ	Transitivizer
REP	Reportative	V	Verb
RES	Resultative	VBZ	Verbializer
RLS	Realis	VIA	Vialis argument
RZ	Realized	VID	Verbal Identifier
S	Subject	VIS	Visual
SBJV	Subjunctive	VOL	Volitional
SEQ	Sequential	VP	Verb phrase

Showcases

01

New Periphrastic Verb Constructions in Middle Mtsqrveli

by Arcaeca

Because the verbs made too much sense before

Although the phonology of Mtsqrveli remained largely unchanged as it transitioned from the Old stage to the Middle stage of its history, the same cannot be said about its grammar. The chief and starkest demarcation between these two stages is found in the verbal morphology, which substantially increased in complexity. The two largest such changes were, first, the evolution of an entire new set of subject markers from lexical sources, and second, the evolution of several new verb constructions of periphrastic origin. This article attempts to describe the latter, with particular attention to the origin and usage of the necessitative, future/conditional, and perfect/pluperfect constructions.

Necessitative Construction

Old Mtsqrveli had a necessitative-imperative modal suffix with two allomorphs, **-dze/-dzo**—harmonizing with the vowels in the original PTZ¹ root, which were rendered unpredictable by sound change even by the time of Old Mtsqrveli—in order to communicate the meaning of “need to” in a verb phrase, or to issue a command. (The Old Mtsqrveli verb **dzamova**, Middle Mtsqrveli **dzamoba** ‘to need’ is restricted to having a noun as a complement.) In Middle Mtsqrveli this suffix has been relegated solely to marking the imperative mood, and even then imperative forms lacking **-dze/-dzo** are attested, but are considered impolite. In its place, a periphrastic construction has developed in Middle Mtsqrveli to fill the role of the necessitative mood.

Forming the Necessitative

The periphrastic necessitative is formed by placing the main verb in its infinitive form and placing the subject in the dative case; the indirect object, if any, switches to being marked with the benefactive case instead of the dative:

¹Proto-Tsxri-Zani, the proto-language of the Tsxri-Zani primary language family to which Mtsqrveli belongs (in the Tsxri branch).

(1) (Txas) croes šenrdzad Biat.

txas cro -es šen-rdz -ad Bia -t
 1.SG.NOM.INDEF *compose* - 1.SG.S NMLZ - *send* - ACC.INDEF *Bia* - DAT

“I write a letter to Bia.”

(2) Txsit croba šenrdzad Biaghe.

txas -it cro -ba šen-rdz -ad Bia -ghe
 1.SG -DAT *compose* -INF NMLZ - *send* - ACC.INDEF *Bia* - BEN

“I must write a letter to Bia.”

The effect is to reduce the volitionality of the cases of all or most of the involved arguments. This may reflect the agent being “forced” to perform the action, which diminishes their agency.

Evolution of the Necessitative

More than agency reduction, however, a likely candidate for the origin of this construction is simply Middle Mtsqrveli’s non-attributive possessive construction, in which the possessor is similarly marked dative, and the possessee is marked nominative:²

(3) Adauni mdzoet tvmadavs.

ada -uni mdzo -et tv -madavs
bestow -PCP *man* -DAT DU - *son*.NOM.INDEF

“A certain (*lit.* given; bestowed) man had two sons.”

Or: “Two sons were a certain man’s.”

(LUKE 15:11)

The necessitative periphrasis can therefore be reinterpreted as at its core a possessive construction whose possessee has been substituted for Middle Mtsqrveli’s indeclinable verbal noun form, the infinitive:

(4) Txsit croba šenrdzad Biaghe.

txas -it cro -ba šen-rdz -ad Bia -ghe
 1.SG -DAT *compose* -INF NMLZ - *send* - ACC.INDEF *Bia* - BEN

“I have [to compose a letter] for Bia.”

Or: “To compose a letter for Bia is mine.”

With the implication that the action is the one’s own *to do* or *to perform*, like a task placed in one’s hands.

The necessitative periphrasis being derived from a possessive construction also suggests why it is necessarily periphrastic, in that it is necessarily communicated by multiple words. Middle Mtsqrveli possesses an applicative voice marker **da-** which promotes an oblique

²The underlying logic of this construction is made more clear with the addition of a copula, e.g. “to a certain man *were* two sons”; however Old and Middle Mtsqrveli are null-copula. Old Mtsqrveli had a verb **urt** ‘to have’ which was highly irregular and rarely used and has fallen out of use entirely in Middle Mtsqrveli; Middle Mtsqrveli retains the verb **mplobsva** ‘to possess’ but it is less used than the dative possessive construction (cf. the relative frequencies of use of English “to have” vs. “to possess”).

of **-dzi** to the old necessitative-imperative **-dze/-dzo** has prompted some speculation that they are ultimately doublets of the same ancestral PTZ or even Pre-PTZ form, but this has never been demonstrated.

The use of **dzi** and its derivatives have become less common in Middle Mtsqrveli with the development of a periphrastic future construction. It is notable for the resultant agent/patient inversion, where 1) the subject takes the accusative case, 2) the direct object takes the nominative case, 3) the subject is marked on the verb with direct object markers, and 4) the direct object is marked on the verb with subject markers.

The auxiliary verb used to form the periphrastic future construction is **qveba**. This is a form of the infinitive **qveba** that is derived from the verbalizer **-eb** plus the root ***qve**, back-formed from the noun **qvela** ‘right; dues; that which is owed,’ by rebracketing from **qvel-a** to **qve-la** (where **-la** is a productive nominalizing suffix). The resultant literal meaning of **qveba** is taken to be something like ‘to behoove; to indebt; to oblige.’

Forming the Future and Conditional

For transitive verbs, the future construction is formed by placing **qveba** next to the lexical verb, which is placed in the present tense; the lexical verb also must be prefixed by the preverb **a-**, and the subject marked on it with the corresponding direct object marker, and vice versa for the direct object (marked as a subject):

(9) **mogherianebdam**

mo- gherian -eb -da -m
 TRZ- *praise* -VBZ -2.SG.S -1.SG.DO
 “You praise me”

(10) **qveba amogherianebades**

qveb -a a- mo- gherian -eb -ad -es
 FUT.AUX -3.SG.S PV- TRZ- *praise* -VBZ -2.SG.DO -1.SG.S
 “You will praise me”

mogherianebades

mo- gherian -eb -ad -es
 TRZ- *praise* -VBZ -2.SG.DO -1.SG.S
 “I praise you”

qveba amogherianebdam

qveb -a a- mo- gherian -eb -da -m
 FUT.AUX -3.SG.S PV- TRZ- *praise* -VBZ -2.SG.S -1.SG.DO
 “I will praise you”

If there is no direct object, a 3rd person singular dummy object is obligatorily marked, if the verb is normally transitive:

(11) ***qveba ač’smem**

qveb -a a- č’sme -m
 FUT.AUX -3.SG.S PV- *eat* -1.SG.DO

(12) **qveba ač'smiam**

qveb -a a-č'sme -a -m
FUT.AUX -3.SG.S PV - *eat* -3.SG.S -1.SG.DO

“I will eat [something]”

The periphrastic future is formed somewhat differently for intransitive verbs. It may be formed the same as transitive verbs, but without the obligatory dummy subject:

(13) **qveba atoxe**

qveb -a a-tox -xe
FUT.AUX -3.SG.S PV - *swim* -3.PL.DO

“They will swim”

Alternatively, the periphrastic future may be formed for intransitive verbs by marking the subject as the direct object of **qveba** and rendering the lexical verb as an infinitive, rather than marking the subject as the direct object of the lexical verb. In such a case, the preverb is not necessary:

(14) **qvebxia toxva**

qveb -xe -a tox -va
FUT.AUX -3.PL.DO -3.SG.S *swim* -INF

“They will swim”

The latter is considered more correct and a formalism; the former is attested in more informal situations and is an extension of the transitive strategy, spread to intransitive verbs by analogy.

Note, however, that if the subject is 1st person-singular and the latter strategy is used, ***qvebam** is not the form of the auxiliary verb used, but rather a special form **qvem** that results from nasal assimilation of the /b/ to the /m/ in ***qvebam**:

(15) ***qvebam guliva**
qvem guliva

qveb -a -m guli -va
FUT.AUX -3.SG.S -1.SG.DO *perish* -INF

“I will perish”

The conditional mood is created by placing the auxiliary verb in the aorist:

(16) **qvebit ač'smiam**

qveb -it a-č'sme -a -m
FUT.AUX -AOR PV - *eat* -3.SG.S -1.SG.DO

“I would eat [something]”

(17) **qvebxit toxva**

qveb -xe -it tox -va
 FUT.AUX -3.PL.DO -AOR swim -INF
 “They would swim”

(18) **qvebtam guliva**

qveb -t -a -m guli -va
 FUT.AUX -AOR -3.SG.S -1.SG.DO perish -INF
 “I would perish”

Evolution of the Future

Old Mtsqrveli did not, and indeed for the most part Middle Mtsqrveli does not, allow multiple conjugated verbs within the same clause. It is therefore necessary to analyze the construction, which contains multiple conjugated verbs, as a union of multiple separate clauses when looking for how it originated.

As the aforewritten examples demonstrate, **qveba** is not being used in its infinitive form “to behoove” in the future construction, but in a 3rd person present-tense form “it behooves” which is phonetically identical; this is due to the two forms being merged by sound change (namely, the simplification of the /b.v/ cluster found in the infinitive ***qvebva** to /b/ by labial assimilation).

In addition, Old and Middle Mtsqrveli do not require a conjunction like the English “that” to subordinate non-relative clauses (although they *may* do so with **nevt**):

(19) **Unda sania, gi dvia Jvari ošpas**

unda sani -a gi dv -ia jvar -i ošp -as
 NEG.ADV utter -3.SG.S if DEM -NOM.DEF lord -GEN.INDEF wrath -ACC.DEF
 “It does not say whether this was the wrath of the Lord, ...” (ŠENQRDOLA)

(20) **Ġamšia, txsi eniali bghia dzi enis mp’arveli...**

ġa- mši -a txas -i ena -iali bghi -ia dzi ena
 PSV -write -3.SG.S 1.SG -GEN.INDEF house -GEN.DEF name -NOM.DEF FUT house
 -is mp’arevs -i
 -ACC.DEF prayer -GEN.INDEF
 “It is written, My house shall be called the house of prayer, ...” (MATTHEW 21:13)

The likeliest explanation, considering the above, is that the periphrastic future construction originated as **qveba** with a direct object subordinating an infinitive in an utterly typical serial verb construction for intransitive verbs:

(21) **qvebc’ia čemoba**

qveb -c’e -a čem- o -va
 FUT.AUX -1.PL.DO -3.SG.S IT -go -INF
 * “It behooves us to go”
 Or: “We will go”

But, for transitive verbs, subordinating another clause which has its own separate subject, and has been rendered in the passive voice:

(22) **qvem, gamqda**

qvēb -a -m gā-mq-da
FUT.AUX -3.SG.S -1.SG.DO PSV-kill -2.SG.S

*“It behooves me, [that] you are killed”

Or: “I will kill you”

As passivization of the lexical verb would be necessary to explain why, in the future periphrasis, the direct object is marked like a subject despite acting as the semantic patient - and, in addition, erosion of the initial /G/ from the passivizer **gā-** would explain the appearance of the preverb **a-** in the future periphrasis.

It seems then that the 3rd person dummy subject form **qvēba** became so frequently used to the exclusion of other forms, that it came to be interpreted as indeclinable (akin to English modal auxiliaries) or even a particle to replace **dzi**. If so, then came to be assumed that placing a direct object on **qvēba** was ungrammatical, causing the direct object suffix to migrate to the lexical verb:

(23) ***qvēbad, adac’ers**

qvēba-d a- da-c’er-s
FUT -2.SG.DO PV-APPL-say -1.SG.S

Intended: “It behooves you, [that] I be told”

(24) **qvēba adac’erdes**

qvēba a- da-c’er-d -es
FUT PV-APPL-say -2.SG.DO -1.SG.S

“You will tell me”

The end result being to invert subject and direct object on the lexical verb, similar to inversion in certain screeves in Georgian. In fact, the comparison to Georgian is apt, because like in Georgian, inversion in Mtsqrveli does not occur on intransitive verbs because there is nothing to invert; inversion requires two arguments. Instead, intransitive verbs remain rendered in the infinitive in a serial verb construction, as the complement to some form of **qvēba**.

Perfect and Pluperfect Constructions

Middle Mtsqrveli has evolved four distinct morphologized perfect verb tenses which in previous stages of the language were not distinguished from the aorist or imperfect pasts or the present tense. They consist of both an active and passive voice of the perfect and pluperfect tenses.

Evolution of the Perfect

All such perfect forms were formed by the merger of an intermediate periphrastic construction of the past participle of the lexical verb with one of two auxiliary verbs, **iq’sēba** ‘to set; to render; to cause to be in a state or condition’ and **iq’ōba** ‘to be set; to be rendered; to be in a state or condition,’ e.g.:

(25) ***laoni iq'sebades**

la -oni iq'seb -ad -es
serve -PCP PERF.AUX -2.SG.DO -1.SG.S

“I render you served”

(26) **laoniq'sebades**

“I have served you”

(LUKE 15:29)

The resemblance between these auxiliary verbs is not incidental; **iq'oba**, from Old Mtsqrveli **iq'obva**, is derived from the Proto-Tskhri-Zani root *jək^s- (of uncertain meaning, but perhaps “as it is; natural; to occur” or something similar) from whence also Middle Mtsqrveli **iq'uli** ‘raw’ and **iq'os** ‘state; condition.’ **iq'seba** is not attested in Old Mtsqrveli and appears to be derived from **iq'os** with the generic verbalizer **-eb** applied triggering syncope of the medial unstressed /ɔ/ from the intermediate ***iq'oseba**.

Formation of the Perfect

The active perfect and pluperfect are derived from **iq'seba** while the passive perfect and pluperfect are derived from **iq'oba**. The perfect is formed by placing the auxiliary verb in the present:

(27) **tark'uniq'sebs**

tark' -uni -iq'seb -s
select -PCP -PERF.AUX -1.SG.S

“I have selected”

lit. “I render [something] selected”

(28) **tark'uniq'obs**

tark' -uni -iq'ob -s
select -PCP -PERF.AUX -1.SG.S

“I have been selected”

lit. “I am rendered selected”

The pluperfect is formed by placing the auxiliary verb in the aorist:

(29) **tark'uniq'sebits**

tark' -uni iq'seb -it -s
select -PCP PERF.AUX -AOR -1.SG.S

“I had selected”

lit. “I rendered [something] selected”

(30) **tark'uniq'obits**

tark' -uni iq'ob -it -s
select -PCP PERF.AUX -AOR -1.SG.S

“I had been selected”

lit. “I was rendered selected”

The lexical source of the auxiliary verbs suggests the answer to a peculiarity of their usage, which is that forms derived from **iq'oba**, though ostensibly passive, are also observed for semantically active intransitive verbs:

(31) ***qarjevniq'sebs**

qar -je -vni iq'seb -s
sin -VBZ -PCP PERF.AUX -1.SG.S

(32) **qarjevniq'obs**

qar -je -vni iq'ob -s
sin -VBZ -PCP PERF.AUX -1.SG.S

“I have sinned”

(33) ***jarcvniq'seba**

jarc -vni iq'seb -a
call.out -PCP PERF.AUX -3.SG.S

(34) **jarcvniq'oba**

jarc -vni iq'ob -a
call.out -PCP PERF.AUX -3.SG.S

“He has called out; he has hollered”

This is simply due to **iq'seba** being transitive and thus requiring a direct object, which cannot be supplied by an intransitive verb. Instead, intransitive verbs simply use an intransitive auxiliary **iq'oba** instead, which often fits anyway as proportionally more intransitive than transitive verbs are semantically patientive.

There is one additional auxiliary verb used on occasion to form the perfect tenses limited to a closed set of verbs. **dgoba** ‘*to stand*,’ being extended to a more general meaning of ‘*to be (locative)*,’ may be used rather than **iq'oba** for some verbs of motion, though not to the exclusion of **iq'oba**. The use of **dgoba** effects a change in connotation, implying that the movement was telic and completed, that the speaker actually attained their destination. **iq'oba** does not imply this; it topicalizes the action itself rather than the result or destination, and this may be construed by some speakers as describing an atelic or incomplete action:

(35) **Ghnonidgves ap erč'veradz dzoli.**

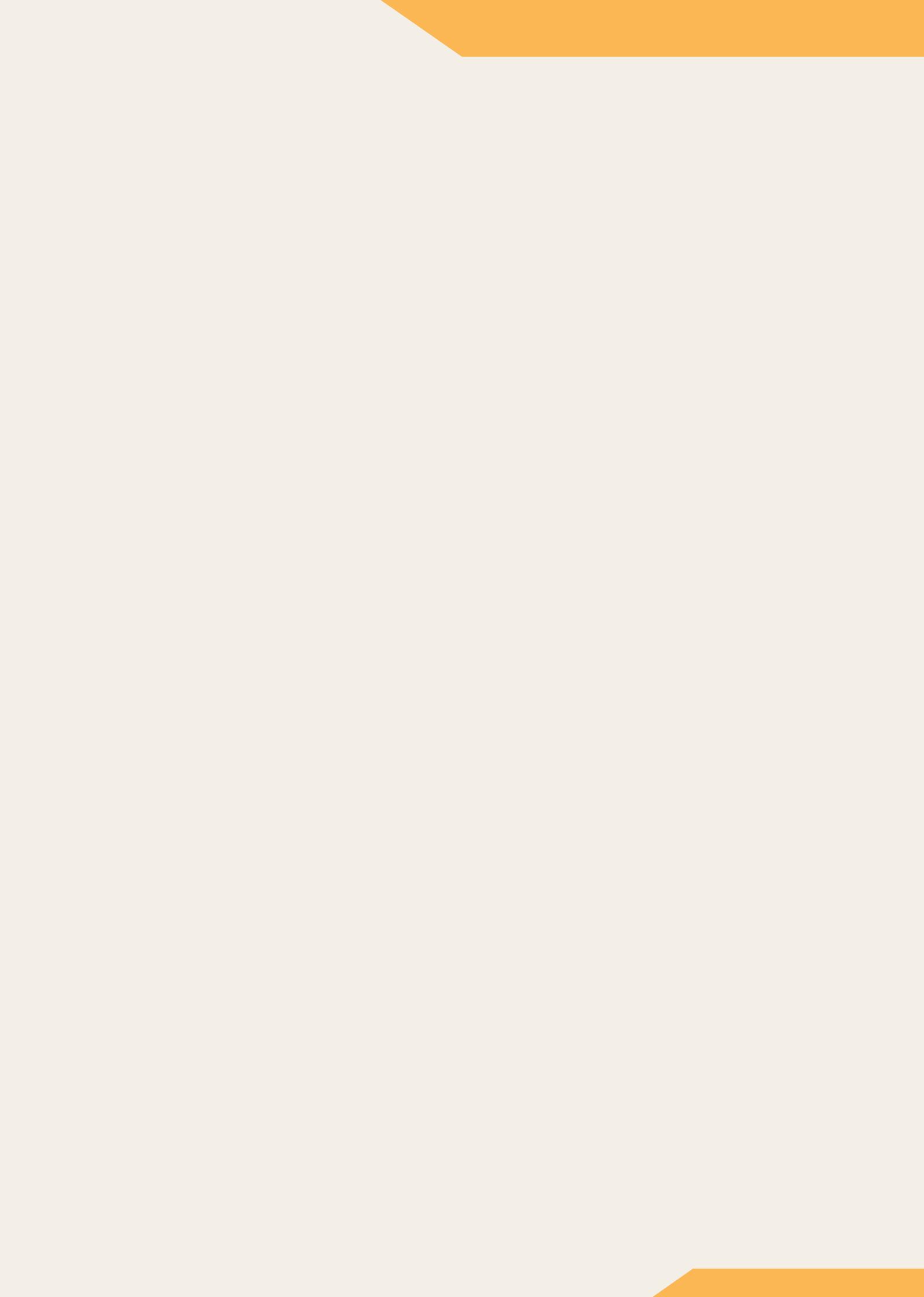
ghno -oni -dgv -es ap ert=č'vera -dz dzol -i
run -PCP -PERF.AUX -1.SG.S *up on= top* -LAT *mountain* -GEN

“I have run up to the top of the mountain [, reached the peak, and stood atop it].”

(36) **Ghnoniq'obs ap erč'veradz dzoli.**

ghno -oni -iq'ob -s ap ert=č'vera -dz dzol -i
run -PCP -PERF.AUX -1.SG.S *up on= top* -LAT *mountain* -GEN

“I have run to the top of the mountain [, and I may or may not have actually reached the top, but I **did** run].”



02

Asa Serial Verb Construction

by *SufferingFromEntropy*

Reject Morphemes, Embrace Syntax

Asa is an analytic language that is spoken on the Asa Islands. Asa descends from Old Qrai, the ancestor of Modern Qrai. Although Old Qrai is a synthetic language, due to severe sound changes, analogy, and morpheme leveling, Asa has become more analytic during its development. In Old Qrai, there were many ways of forming a complex predicate using multiple verbs, some of which still survives into Modern Qrai. Asa, however, reconstructs these constructs into serial verb constructs, where any overt marking of dependency of a component verb is removed. Along the way, Asa also developed some innovative uses of serial verb constructs, making it distinctive from Old Qrai and Modern Qrai.

Background

A typical Asa sentence follows VSO order. Subjects or objects may be fronted when they serve as the topic of an utterance. Some words such as personal pronouns are often fronted due their salience. Some grammatical devices such as negation and interrogatives also front their topic to the front of the main verb. (1) lays out a simple sentence in Asa using personal pronouns **sa** /sa/ ‘I’ and **ja** /ʒa/ ‘he, she, it’ and a common verb **is** /is/ ‘to see’.

(1) **Sa is ja.**

sa is ja
1.SG see 3.SG

“I see him.”

Most words in Asa are monosyllabic. Verbs are conjugated for past tense and subjunctive mood. Some verbs have distinct negated form. Table 1 briefly tabulates Asa verb conjugation. There is a subset of verbs that have different past form from others, where the consonant /ts/ directly follows the glottalized nasals or lateral /l/.

	IPA	Meaning	Past	Subjunctive
dyan'	/dʲanʹ/	'to enter'	dyanʹits /dʲanʹits/	dyanyʹ /dʲanʲʹ/
jants	/ʃants/	'to replace'	jantsits /ʃantsits/	jantsy /ʃantsʲ/
tsin	/tsin/	'to give'	tsilʹits /tsilʹits/	tsily /tsilʲ/
'um	/ʔum/	'to kneel'	'umʹts /ʔumʹts/	'umy /ʔumʲ/
jin	/ʃin/	'to color'	jinʹts /ʃinʹts/	jiny /ʃinʲ/
ral	/ral/	'to show'	ralʹts /ralʹts/	raly /ralʲ/

Table 1: Asa verb conjugation.

Serial Verb Construct

Serial verb construct (SVC for short) is a construct where multiple independent verbs are put together, forming one single predicate, sharing arguments, and referring to an event that is different from any of its components. SVC have different functions and syntactic behaviors cross-lingually, and linguists have been putting effort into building a framework that identifies and analyzes SVCs. The analysis and terminology used here will be based on that of Alexandra Y. Aikhenvald. Linguists have proposed some criteria of a multi-verb expression being an SVC, and they are listed below.

1. Main verbhood
2. Monoclausivity
3. Prosodic property
4. Shared polarity value
5. Eventhood
6. Shared argument

There are also other Asa multi-verb constructs which seem identical to true SVCs to the untrained eye. These proposed criteria are useful for excluding non-SVCs, but any single one of them cannot determine if a construct is an SVC definitively. Below we will put these criteria into use and exclude non-SVCs that fail to meet these criterion.

Main verbhood

Main verbhood refers to whether any component of an SVC can act as a main verb in a mono-verb clause. More precisely, it mandates that the meaning and spelling of each of its components must not stray away too far from their uses when used independently. This criterion excludes constructs that match any of the following descriptions:

1. One of its components only occur in this particular situation.
2. One of its components only have such reading in this particular situation.
3. One of its components does not function as a verb in other context.
4. The construct only allows a particular set of combinations; that is, these combinations are lexicalized and idiomatic.

Two examples in (2) are presented here for analysis and comparison. In both examples, each predicate is composed of two words and the first component is marked with a suffix **-(')its** denoting past tense. The argument that comes before a predicate is the subject and that which comes after is the object.

(2) a. **Sa gyil’its jin lij.**
 sa gyil -’its jin lij
 1.SG axe -PST fall tree
 “I felled a tree.”

b. **Sa tsusits lus hunkun.**
 sa tsus -its lus hunkun
 1.SG bear -PST be at PLACE
 “I was born in Hong Kong.”

Given that each of the verbs, **gyin**¹, **jin**², **tsus**, and **lus** has an English translation that is a verb, one would think that the phrases **gyin jin** and **tsus lus** are SVCs. In fact, (3) shows that the first three words are indeed verbs.

(3) a. **Sa gyil’its gaf.**
 sa gyil -’its gaf
 1.SG axe -PST door
 “I axed a door.”

b. **Lij jil’its.**
 lij jil -’its
 tree fall -PST
 “The tree fell.”

c. **Mas tsusits gi.**
 mas tsus -its gi
 mother bear -PST baby
 “The mother gave birth to a baby.”

(4a) shows that the word **lus** acts like a locative copula, linking the subject and the object, suggesting that the subject is at the place denoted by the object. However, this copula is not inflected for past tense as other verbs are. (4b) shows that the inflected form ***lusits** is ungrammatical. The past tense of this copula is realized by the addition of the word **’uts**, which is essentially the past tense of the verb **u** /u/ ‘to be’. Therefore, the word **lus** is better analyzed as a locative preposition, marked as LOC as in (4c), and we had better reconsider (4a) with a zero-copula.

(4) a. **Sa lus hunkun.**
 sa lus hunkun
 1.SG be at PLACE
 “I am in Hong Kong.”

¹Non-past form of **gyilits**.

²When it refers to ‘to fall, collapse,’ its past tense is **jil’its**. When it refers to ‘to color, paint,’ its past tense is **jin’ts**. They are two different lexical entries that follow different conjugation patterns but have the same lexical form.

b. ***Sa lusits hunkun.**

sa lus -its hunkun
1.SG *be at* -PST PLACE

Intended: “I was in Hong Kong.”

c. **Sa ’uts lus hunkun.**

sa ’uts lus hunkun
1.SG *be.PST* LOC PLACE

“I was in Hong Kong.”

Therefore, it is established that constructs such as (2b) are not true SVCs. Words that may appear to be copulas but are actually prepositions include **lus** /lus/ ‘(for an animate subject) to be at’, **jis** /ʃis/ ‘(for an inanimate subject) to be at’, **jimy** /ʃim^ɨ/ ‘to use’, and **tsin** /tsin/ ‘to serve’. These words do not pass the main verbhood criterion.

Monoclausity

Monoclausity refers to whether a sentence is composed of exactly one clause rather than multiple coordinated clauses. The criterion of monoclausity mandates that a true SVC must be monoclausal. As a result, explicit syntactic devices such as coordination and subordination entails that the construct is not an SVC³. Any multi-verb predicate where the subjunctive marker **-y** is present fails the criterion, since the marker signals subordination. (5a) shows that the clause **tuly...dali** is subordinated to the verb **jas** /ʃas/ ‘to say, suppose’. (5b) shows that the verb in subjunctive mood refers to the manner of the main verb.

(5) a. **Jas tuly phyi dali.**

jas tul -y phyi dali
say red -SBJV *that flower*

“I suppose that the flower is red.”

b. **Sa fi bily phyi nats.**

sa fi bil -y phyi nats
1.SG *arrive run* -SBJV *that house*

“I ran to that house.”

The subjunctive marker is also present in negation and interrogative, where verbs following either **sah** /sah/ ‘to not have’ or **ah** /ah/ ‘is it, does it’ are marked as subjunctive. One may argue that, in these cases, the subjunctive marker is solely a mood suffix, instead of a subordinator, with these verbs either lacking a distinct subjunctive form or having a subjunctive form identical to its lexical form. This is apparently not true, as is shown in (6), where **ah** precedes **sah** and the latter is inflected for subjunctive. Therefore, both negation and interrogative are not SVCs in Asa.

³The condition that there is no explicit syntactic marker is, however, a **necessary** condition. It is not **sufficient** since there are non-SVC constructs that show no explicit coordination or subordination markers. A condition *P* is **necessary** for an event *Q* when failing to meet *P* means *Q* failing to occur. A condition *P* is **sufficient** for an event *Q* when satisfying *P* also satisfies *Q* consequentially.

(6) **Da ah sahy isy pfya.**

da ah sah -y is -y pfya
2.SG Q NEG-SBJV see-SBJV that

“Did not you saw that?”

Prosodic properties is a necessary⁴ condition for SVCs. That is, if the prosodics of a multi-verb construct has an intonation or pause pattern that suggests multiple clauses, then the multi-verb construct in question is not an SVC. This criterion excludes coordination with no overt marker. In Asa, all clauses are separated by pauses, as are heads of different clauses in coordination. The prosodic pause is indicated by the slash in (7), where a pause causes different interpretation of seemingly identical sentences.

(7) a. **Sa naj / luy ja.**

sa naj / luy ja
1.SG beat COORD step 3.SG

“I am going to beat him and tread on him.”

b. **Sa naj luy ja.**

sa naj luy ja
1.SG beat step 3.SG

“I am going to devastate him.”

Single eventhood

Single eventhood refers to whether the SVC refers to a simple coherent event or a macro-event composed of closely related sub-events, as opposed to a series of events, each indicated by one verb of the multi-verb predicate. Two examples (8a) and (8b) are given, where the former refers to two separate events and the latter refers to a single event. Note that, in this fashion, SVCs usually translate into a mono-verb predicate in languages without SVCs.

(8) a. **Ja dil’its ’ij’its.**

ja dil -’its ’ij -’its
3.SG faint -PST die -PST

“He fainted and passed away.”

b. **Sa naj’its ’ij ja.**

sa naj -’its ’ij ja
1.SG fist -PST die 3.SG

“I beat him to death.”

The criterion of single eventhood depends on our interpretation of words rather than perceivable surface form. As a result, the notion of eventhood depends on our cognition, and SVCs serve as cultural constructs encoding macro-events that are salient in a given culture. For example, in Hmong language, dancing while playing bamboo pipes is a conceptualized

⁴It is, again, necessary but not sufficient. In other words, there are cases where a non-SVC construct exhibiting the same prosodic properties as a genuine SVC.

activity that is encoded with an SVC, but dancing while singing a song can only be considered simultaneous activities. In Asa, there is also a phrase **pfas fum** /pfas fum/ ‘to rage and cry’ that refers to crying while getting mad, an idea that is well conceptualized in Asa but can hardly be expressed with a mono-verb predicate in English⁵.

(9) **Ja pfas fum.**

ja pfas fum
3.SG rage cry

“He is so mad that he cries.”

We can never determine if a construct is truly SVC if we have no full knowledge of the culture, but perhaps we can look for semantic clues that determine if a construct refers to a coherent set of events. As such, Bohnemeyer *et al.* proposed macro-event property (MEP) as a semantic property of those constructs that we intuitively think are referring to a (macro-)event. A construct is said to possess MEP if grammatical devices such as tense, aspect, modality, and polarity have their scope over all of its sub-events. If one sub-event is located differently in time from others, or one is negative while others are affirmative, then the construct is not qualified as a true SVC. Examples in (10) show that the past tense marker **-(')its**, the progressive aspect marker **u lus** (past tense **'uts lus**), and the negating verb **sah** all have scope over all the following verbs.

(10) a. **Ja dahits 'um m'i.**

ja dah -its 'um m'i
3.SG climb -PST kneel ground

“He crept on the ground.”

Not: “He climbed and now he kneels on the ground.”

b. **Ja 'uts lus dan fuh palti.**

ja 'uts lus dan fuh palti
3.SG be LOC eat drink party

“He was enjoying a party.”

Not: “He was eating and now he drinks a party.”

c. **Sa sah dany 'un bi ih.**

sa sah dan -y 'un bi ih
1.SG NEG eat -SBJV end this meal

“I am not done eating the meal.”

Not: “I do not eat and the meal is done.”

Note that a device having a scope over all sub-events is not identical with all components of a construct receiving the same grammatical marking⁶. If anything, one should raise concern

⁵I am in no way an expert in English, but after a quick Google search I found the phrase “angry tears”. Maybe “shedding angry tears” can be a good mono-verb translation.

⁶Although it is stated above that the presence of a subordination or coordination marker disqualify the construct being an SVC, not all overt markers disqualifies the construct, and the different in markers present on each of the components does not always signal such disqualification. Japanese and Bali-Vitu have SVCs with their components marked differently.

when such double-marking is present, because this signals that these events are separated and encoded by two clauses. (11) demonstrates that how an additional past tense marker on the second verb changes the interpretation. Here an adverb **pfuh** /pfuh/ ‘*after that, and then*’ is added to the end of each sentence.

(11) a. **Ja dahits ’um m’i pfuh.**

ja dah -its ’um m’i pfuh
3.SG climb -PST kneel ground and then

“After that, he crept on the ground.”

b. **Ja dahits ’um’its m’i pfuh.**

ja dah -its ’um -’its m’i pfuh
3.SG climb -PST kneel -PST ground and then

“He climbed up (the ground), and then he kneeled on the ground.”

Semantics

SVC is a grammatical device that cover a wide range of functions cross-lingually. Even within a particular language, SVC may serve multiple purposes, as is the case of Asa. Asa SVCs, according to the relationship between the interpretation of the whole SVC and each meaning of their constituents, can be categorized into four groups: **contemporaneous**, **cause-effect**, **causative**, and **event-argument** SVCs. Table 2 gives these four types of SVCs and their parameters of variation.

	Symmetry	Argument sharing
Contemporaneous	symmetrical	$S(V_1) = S(V_2)$
Cause-effect	symmetrical	$O(V_1) = S(V_2)$
Causative	asymmetrical	$O(V_1) = S(V_2)$
Event-argument	asymmetrical	$V_1 = S(V_2)$

Table 2: Three main types of Asa SVCs.

Contemporaneous SVCs Contemporaneous SVCs are those whose constituent verbs denote events or actions that occur at the same time, in the same period of time, or in an iconic sequence. In addition to that, the subjects and objects of these actions are identical. Examples include **pfas fum** /pfas fum/ ‘*to shed angry tears*’, **dah ’um** /dah ?um/ ‘*to creep, crawl*’, and **tsin tsaf** /tsin tsaf/ ‘*to exchange, trade*’.

(12) **Sa tsin tsaf lus hunkun.**

sa tsin tsaf lus hunkun
1.SG give get LOC PLACE

“I do business in Hong Kong.”

Cause-effect SVCs Cause-effect SVCs are those whose V_1 denotes the cause of the action or the state of V_2 . Different from contemporaneous SVCs, the subject of V_1 is different from that of V_2 . It is the subject of V_2 who experiences the state or performs the action stated by V_2 , despite it appearing as the object of the whole predicate. Examples include **juh an** /ʃuh an/ ‘to scare away’, **jin tul** /ʃin tul/ ‘to paint red’, and **gyin jin** /gʲin ʃin/ ‘to fell, cut down’.

(13) **Da juhits an ji.**

da juh -its an ji
2.SG scare -PST leave 3.PL

“You scared them away.”

Causative SVCs Causative SVCs are those whose V_1 carries a function of causation, denoting that the subject is the cause of the action of V_2 . V_2 of such SVCs is always intransitive. Some transitive verbs may occur as V_2 , but their objects are never explicitly stated. V_1 of such SVCs are restricted to the following verbs: **tsin** /tsin/ ‘to give’, **tsutsun** /tsutsun/ ‘order, command’, **t’un** /t’un/ ‘to permit’, **tsam’** /tsam’/ ‘to force’, and **litsim** /litsim/ ‘to drive’.

(14) **Pfyi gibin tsam’ t’un sa.**

pfyi gibin tsam’ t’un sa
that law force yield 1.SG

“The law forces me to yield.”

Event-argument SVCs Event-argument SVCs are SVCs where V_1 and V_2 share no arguments but the event of V_1 as a whole is the subject of V_2 . The state, manner, or attribute denoted by V_2 describes the event or its outcome denoted by V_1 . In this regard, V_2 can only be stative verbs, and they usually come from a rather small set of verbs. Examples include **dyum’ j’um** /dʲum’ ʃ’um/ ‘to emend, correct’ and **’ilf bal** /ʔilf bal/ ‘to misconstrue’.

(15) **Da sutsits j’um ba.**

da suts -its j’um ba
2.SG say -PST right this

“You were right about this.”

Symmetry

The term **symmetry** refers to how restricted the composition of SVCs are. If there are no or few restrictions on which verb is eligible for both slots V_1 and V_2 , then the SVC is called **symmetrical**. On the other hand, if one of the constituents of an SVC is restricted to a rather smaller set of verbs, such an SVC is said to be **asymmetrical**. Symmetry of an SVC can be used to categorize an SVC and predict its development. Symmetrical SVCs are prone to lexicalization while asymmetrical SVCs are prone to grammaticalization.

Although it is said that the constituents of a symmetrical SVC are unrestricted, it does not necessarily mean that symmetrical SVCs allow all possible combinations of verbs to occur.

In other words, symmetrical SVCs apply restrictions on the **combination** of its constituents, and their order is often iconic—their syntactic order reflects their chronological order, and reversing such order is usually ungrammatical, as demonstrated by (16).

- (16) a. **Ja tsafits fuh pfya.**
 ja tsaf -its fuh pfya
 3.SG take -PST drink that
 “He took it and drank it.”
- b. ***Ja fuhits tsaf pfya.**
 ja fuh -its tsaf pfya
 3.SG drink -PST take that
Intended: “He took it and drank it.”

Symmetrical SVCs also often suffer semantic shift to different extents. In some extreme cases, the combination becomes so idiosyncratic that its interpretation seems to be unrelated to its constituents – it is just an idiom. Asa contemporaneous SVCs are prone to such lexicalization, as seen in phrases **tsin tsaf** /tsin tsaf/ ‘to trade’ and **dan fuh** /dan fuh/ ‘to enjoy’.

The constituent that is restricted in an asymmetrical SVC is called **minor verb**, and the other **major verb**. Table 3 lists all minor verbs that occur in asymmetrical SVCs. Minor verbs could occur at either V₁ or V₂. They are V₁ of causative SVCs and V₂ of event-argument SVCs.

	Minor verb candidates
Causative	tsin /tsin/ ‘to give’
	tsutsun /tsutsun/ ‘order, command’
	t’un /t’un/ ‘to permit’
	tsam’ /tsam’/ ‘to force’
	litsim /litsim/ ‘to drive’
Event-argument	j’um /ʔum/ ‘correct’
	bal /bal/ ‘wrong’
	lan /lan/ ‘felicitous, appropriate’
	suy /suj/ ‘infelicitous, messed up’
	’un /ʔun/ ‘over, finished’
	busy /bus ^ɿ / ‘feasible’
	nyih /n ^ɿ ih/ ‘required, obligatory’

Table 3: Minor verbs of Asa asymmetrical SVCs.

Valency

Asa transitive SVCs are composed of at least one transitive verb. If all constituents of an SVC are intransitive, the resulting SVC is also intransitive. When transitive verbs coalesce into an SVC while retaining their transitivity, they also introduce their arguments into the matrix. The valency of the resulting SVC decreases when there is argument sharing, which decreases the number of obligatory arguments to be filled out. In some languages, two transitive verbs that share the same subject form a ditransitive SVC⁷. Asa SVCs, however,

⁷For example, Mandarin **wǒ ná dao sha yú** ‘I kill fish with knife.’ features two transitive verbs **ná** ‘to take’ and **sha** ‘to kill’ and three arguments **wǒ** ‘I’, **dao** ‘knife’, and **yú** ‘fish’. The valency of the resulting SVC (3) is less than the sum of valencies of its constituents (2 + 2 = 4) by one.

further require their transitive constituents to share objects as well, resulting in monotransitive SVCs. It is the prepositions that impart an instrumental or committive argument. (17) tries to express two events with different objects in one sentence but fails to be grammatical, since these two events are not associated closely enough to be considered constituting a macro-event.

(17) ***Sa tsafits ba fuh pfya.**

sa tsaf -its ba fuh pfya
1.SG take -PST this drink that

Intended: “I took this and drank that.”

Two transitive verbs or two intransitives can only make a contemporaneous SVC. Rarely is a contemporaneous SVC composed of one transitive and one intransitive. Other types of SVC can only be composed of exactly one transitive and one intransitive. Further more, V₂ of cause-effect, causative, and event-argument SVCs are all intransitive. Still, when one of the constituents is transitive, the resulting SVC is transitive as well.

In a few cases, an intransitive SVC results from combining transitive verbs. These SVCs are results of lexicalization that developed its own argument structure from that provided by its constituents. For example, the SVC **tsin tsaf** /tsin tsaf/ ‘to do business’ comprises of two transitive verbs: **tsin** /tsin/ ‘to give’ and **tsaf** /tsaf/ ‘to take’. The SVC does not mean that one gives and then takes back what is given out; rather, this pair of actions is treated as typical actions of a transaction.

Conclusion

This article aims to provide an analysis on one particular construct of complex predicate: the serial verb construct. First, the defining criteria of SVCs are discussed and used to exclude non-SVCs that bear strong resemblance to true SVCs. After that, the Asa SVCs are categorized into four types depending on their function, and the semantic and syntactic properties are examined.

When I was working on complex predicates in Qrai, I thought adding SVCs to it would be a good idea. Turns out that Qrai morphosyntax makes SVCs impractical. There are just too many case and syntactic markers in Qrai (due to my desperate need of explicit indicator of syntactic function). Then I turn to Asa, a sister language of Qrai that heavily reduces sounds and syntactic markers. It is not to say that SVC cannot work in a language that marks dative and accusative; rather, the obsession with overt indicators of syntactic function has impaled my creativity in constructing predicates without overt dependency and clear pattern of composition, I think.

Since SVCs are not a part of ‘average European language’, the idea appeared at first obscure and unfathomable to me, despite the very fact that Mandarin, a language that heavily incorporates SVC, is my mother tongue. Therefore, by writing this article and reading relevant publications, I hope I can gain more knowledge in this topic and elaborate on the morphosyntax of Asa (and perhaps gain more insight in developing Qrai grammar.)

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03

The Amniosian Language

by **Shubh Gupta (TheO)**

Verbal Constructions

Amniosian is the national language of Amniosa, a continent island. It is a synthetic language but is quite analytical compared to its parent language which was even more synthetic. Sometime around the middle ages, people from other parts of the world discovered Amniosa and started trading. Amniosians treat their guests with a lot of kindness and this is embedded in their culture. They have a welcoming nature. As a result, many immigrants started settling in the country. This is when the proto-language began evolving into the modern language. The languages of the traders and the immigrants influenced Amniosian a lot and played a major role in the development of the language.

This is what you will hear from an Amniosian linguist. In reality, Amniosian was a language that I started working on in October 2020. One month later, I scrapped the project because I felt like the grammar was too bizarre. It was so quirky that even I started getting confused.

After taking some time off, I reevaluated the project and took a step back. Finally, I started redeveloping the language. So, I guess you can call this The Amniosian Language 2. It still has the same “basic idea” of Amniosian 1 but with far less confusion. Still, I too get confused from time to time!

Amniosian has two registers: formal and informal. The formal register is closer to the mother language whereas the informal register is more analytical. The formal register has a lot of inflections. Verbs are inflected for only tense, aspect, and mood. Verbs of the informal register only inflect for aspect and mood. Tenses are marked with the help of auxiliary verbs.

Tense

Amniosian has five tenses: distant past, near past, present, near future, distant future. There is no time limit of when “near tenses” end and when “distant tenses” begin. It purely depends on the context. For example, the “distant tense” could refer to the latter part of the

day and the “near tense” could refer to lunch time. It may also be possible that the “distant tense” refers to seven years from today and the “near tense” refers to a month from today

- (1) **lene goo leshimp** Formal
 len -e go -o lesh -imp
the.M -ERG 1.SG -ERG eat -PRS.SIM.IND
 “I eat.”
- (2) **lene go leshimp** Informal
 len -e go lesh -imp
the.M -ERG 1.SG eat -PRS.SIM.IND
 “I eat.”
- (3) **lene goo leshicti** Formal
 len -e go -o lesh-ic <t> i
the.M -ERG 1.SG -ERG eat -SIM.IND:DIS.FUT
 “I will eat.”
- (4) **lene go stun leshimp** Informal
 len -e go stun lesh -imp
the.M -ERG 1.SG go.AUX eat -PRS.SIM.IND
 “I will eat.”

Aspect

There are two grammatical aspects in Amniosian: simple and progressive. The simple aspect is used for general facts. It does not tell us if the action is finished or is continuing. The progressive or the continuous aspect tells us that the action is continuing.

- (5) **lina lia leshke** Formal
 lin -a li -a lesh -ke
the.F -ERG she -ERG eat -PRS.SIM.IND
 “She eats.”
- (6) **lina li leshke** Informal
 lin -a li lesh -ke
the.F -ERG she eat -PRS.SIM.IND
 “She eats.”
- (7) **lina lia leshge** Formal
 lin -a li -a lesh -ge
the.F -ERG she -ERG eat -PRS.PROG.IND
 “She is eating.”
- (8) **lina li leshge** Informal
 lin -a li lesh -ge
the.F -ERG she eat -PRS.PROG.IND
 “She is eating.”

The present perfective aspect may be conveyed by using the near past tense with the simple aspect. The future perfective, by using the near future tense with the simple aspect. And the past perfective, by using distant past tense.

(9) **lene tsono leshasa** Formal

len -e tson -o lesh -asa
the.M -ERG you.FOR -ERG eat -PST.SIM.IND

“You just now ate / you have eaten.”

(10) **lene tse kenunla leshast** Informal

len -e tse kenun -la lesh -ast
the.M -ERG you come.AUX -REC.PST eat -PRS.SIM.IND

“You just now ate / you have eaten.”

The simple aspect has unvoiced consonants in its suffix whereas the progressive aspect has the voiced equivalents in its suffix.

(11) **leshke**

lesh -ke
eat -PRS.SIM.IND

(12) **leshge**

lesh -ge
eat -PRS.PROG.IND

Mood

Amnosian has four distinct moods: indicative, subjunctive, interrogative and imperative. The affixes will have two forms depending upon the vowel. This is in accordance with vowel harmony.

Vowel harmony

This language has rounded – unrounded vowel harmony, that is why there are two forms of inflections. If the final vowel of the root verb is rounded, then the vowel of the inflection is also rounded. Otherwise, the vowel in the inflection is unrounded.

(13) **lesh-va → lesh-ke**

lesh -va lesh -ke
eat -INF eat -PRS.SIM.IND

(14) **sok-va → sok-ko**

sok -va sok -ko
like -INF like -PRS.SIM.IND

Indicative mood

The indicative mood is used to express facts or universal truths.

<i>Future Tenses</i>	Near Future Tense		Distant Future Tense	
	Simple	Progressive	Simple	Progressive
1st person	ici/ucu	igi/ugu	icti/uctu	igdi/ugdu
2nd person	aha/ähä	aja/äjä	ahta/ähtä	ajda/äjdä
3rd person	ceh/coh	gej/goj	ceht/coht	gejd/gojd

<i>Past Tenses</i>	Near Past Tense		Distant Past Tense	
	Simple	Progressive	Simple	Progressive
1st person	iti/utu	idi/udu	itki/utku	idgi/udgu
2nd person	asa/äsä	aza/äzä	aska/äskä	azga/äzgä
3rd person	tes/tos	dez/doz	tesk/tosk	dezg/dozg

Subjunctive mood

The subjunctive mood is used for commands, wishes and conditional statements.

<i>Future Tenses</i>	Near Future Tense		Distant Future Tense	
	Simple	Progressive	Simple	Progressive
1st person	sci/scu	zgi/zgu	scit/scut	zgid/zgud
2nd person	fha/fhä	vja/vjä	fhat/fhät	vjad/vjäd
3rd person	shce/shco	shge/shgo	shcet/shcot	shged/shgod

<i>Past Tenses</i>	Near Past Tense		Distant Past Tense	
	Simple	Progressive	Simple	Progressive
1st person	sti/stu	zdi/zdu	stik/stuk	zdig/zdug
2nd person	fsa/fsä	vza/vzä	fsak/fsäk	vzag/vzäg
3rd person	shte/shto	shde/shdo	shtek/shtok	shdeg/shdog

Conditional mood

Generally, conditional statements express a condition and then its outcome(s). In Amniosian, the condition is expressed first, then the outcome. The particle **lar** is suffixed to the verb of the conditional clause and the particle **var** is suffixed to the verb of the clause indicating the outcome. All the verbs of conditional sentences will be inflected for the subjunctive mood.

- (15) **lenne lene kenunoktlar, linna lina stunoktvar** Formal
 len -ne le -ne kenun -okt -lar lin -na li -na stun
the.M -NTR he -NTR go -PRS.SIM.S -COND the.F -NTR she -NTR come
 -okt -var
 -PRS.SIM.S -RES

“If he comes, then you can go.”

- (16) **lenne le kenunoktlar, linna li stunoktvar** Informal
 len -ne le kenun -okt -lar lin -na li stun -ok -tvar
the.M -NTR he go -PRS.SIM.S -COND the.F -NTR she come -PRS.SIM.S -RES

“If he comes, then you can go.”

Imperative mood

This mood is used in the informal register for expressing commands. To express commands in the formal register, the subjunctive mood is used. The particle **ra** is added after the verb. It is not suffixed.

(17) **lene tsono leshaft** Formal

len -e tson -o lesh -aft
the.M -ERG you.FOR -ERG eat -PRS.SIM.S

“I wish you eat/you please eat.”

(18) **lene tse leshaft ra** Informal

len -e tse lesh -aft ra
the.M -ERG you eat -PRS.SIM.S IMP

“You eat!”

Interrogative mood

The interrogative mood is used in questions. In questions, the word order changes from subject-verb-object to verb-subject-object.

The verb will be conjugated for the indicative mood and the suffix **-sham** will be added after the inflection.

(19) **leshazdsham lene tstone** Formal

lesh -azd -sham len -e tson -e
eat -PRS.PROG -Q the.M -ERG you.FOR -ERG

“Are you eating?”

(20) **leshazdsham lene tse** Informal

lesh -azd -sham le -ne tse
eat -PRS.PROG -Q the.M -ERG you

“Are you eating?”

Present Tense

<i>Present Tense</i>	Indicative		Subjunctive	
	Simple	Progressive	Simple	Progressive
1st person	imp/ump	imb/umb	isht/usht	ishd/ushd
2nd person	ast/äst	azd/äzd	aft/äft	avd/ävd
3rd person	ke/ko	ge/go	ekt/okt	egd/ogd

Morphosyntactic alignment

Amnosian follows the tripartite alignment. The subject of the transitive is placed under the ergative case. The object of the (transitive) verb is placed under accusative and the subject of the intransitive verb is placed under intransitive case. It is important to note that all three cases have their own inflections.

- | | |
|--|---|
| (21) lene lee - transitive subject (he) | (24) das da eu - transitive subject (it) |
| (22) lenaf leaf - transitive object (him) | (25) das da auf - transitive object (it) |
| (23) lenne lene - intransitive subject (he)
(it inanimate) | (26) das da ni - intransitive subject (it) |

Auxiliary verbs

Tenses in the informal register shall be expressed using auxiliary verbs. The verb ‘to go,’ when placed after the main verb, marks the future tense, and the verb ‘to come,’ when placed after the main verb, marks the past tense. When the particle **la** is added after the auxiliary verb, it conjugates the tense for the near future or near past tense.

- | | |
|--|--------|
| (27) lenne lene stunshgod | Formal |
| <p>len -ne le -ne stun -shgod
 <i>the.M -NTR he -NTR go -FUT.PROG.IND</i></p> <p>“He will be going.”</p> | |

- | | |
|---|----------|
| (28) lenne le stun stungo | Informal |
| <p>len -ne le stun stun-go
 <i>the.M -NTR he go.AUX go -SIM.PROG.IND</i></p> <p>“He will be going.”</p> | |

Gerunds

Gerunds are verbs that behave like nouns in a sentence. They have the ‘ing’ form as the word ‘swimming’ in the sentence ‘Swimming is exhausting.’ Gerunds in Amniosian are formed by inflecting the verb root like nouns and adding in an article before the verb.

Most of the Gerunds are Inanimate (neutral) nouns, so they will follow the grammar of the inanimate nouns.

- | | |
|---|--------|
| (29) lene lee sokko nasaf lesh auf | Formal |
| <p>len -e le -e sok -ko nasaf lesh auf
 <i>the.M -ERG he -ERG like -PRS.SIM.IND eat.GER</i></p> <p>“He likes to eat.”</p> | |

- | | |
|---|----------|
| (30) lene le sokko nasaf lesh | Informal |
| <p>len -e le sok -ko nasaf lesh
 <i>the.M -ERG he like -PRS.SIM.IND eat.GER</i></p> <p>“He likes to eat.”</p> | |

Root form of the verb

All verbs end with **va**. To create the root form of the verb, the particle **va** is removed. Suffixes are added to the root form of the verb.

Verb: **stunva** 'go'

Root verb: **stun**

Conclusion

As you can see, Amniosian is an inflected language but the amount of inflection can vary depending upon the register. Amniosian has five tenses—near past, distant past, present, near future and future. It has two main aspects—simple and progressive. Tenses can be used to convey the perfective aspect. Amniosian has three moods—indicative, subjunctive, interrogative. The subjunctive is used to convey commands or requests, wishes and conditionals. Auxiliary verbs exclusively belong to the informal register. Thus, only the present tense is present in the informal register whereas the formal register has other tenses. The gerund is made by treating the verb as an inanimate neutral noun. Amniosian is not completed yet! This was just a gist of the verbal system of Amniosian. I still have a lot to work on and I shall try to get them published in Segments. Thanks for reading!

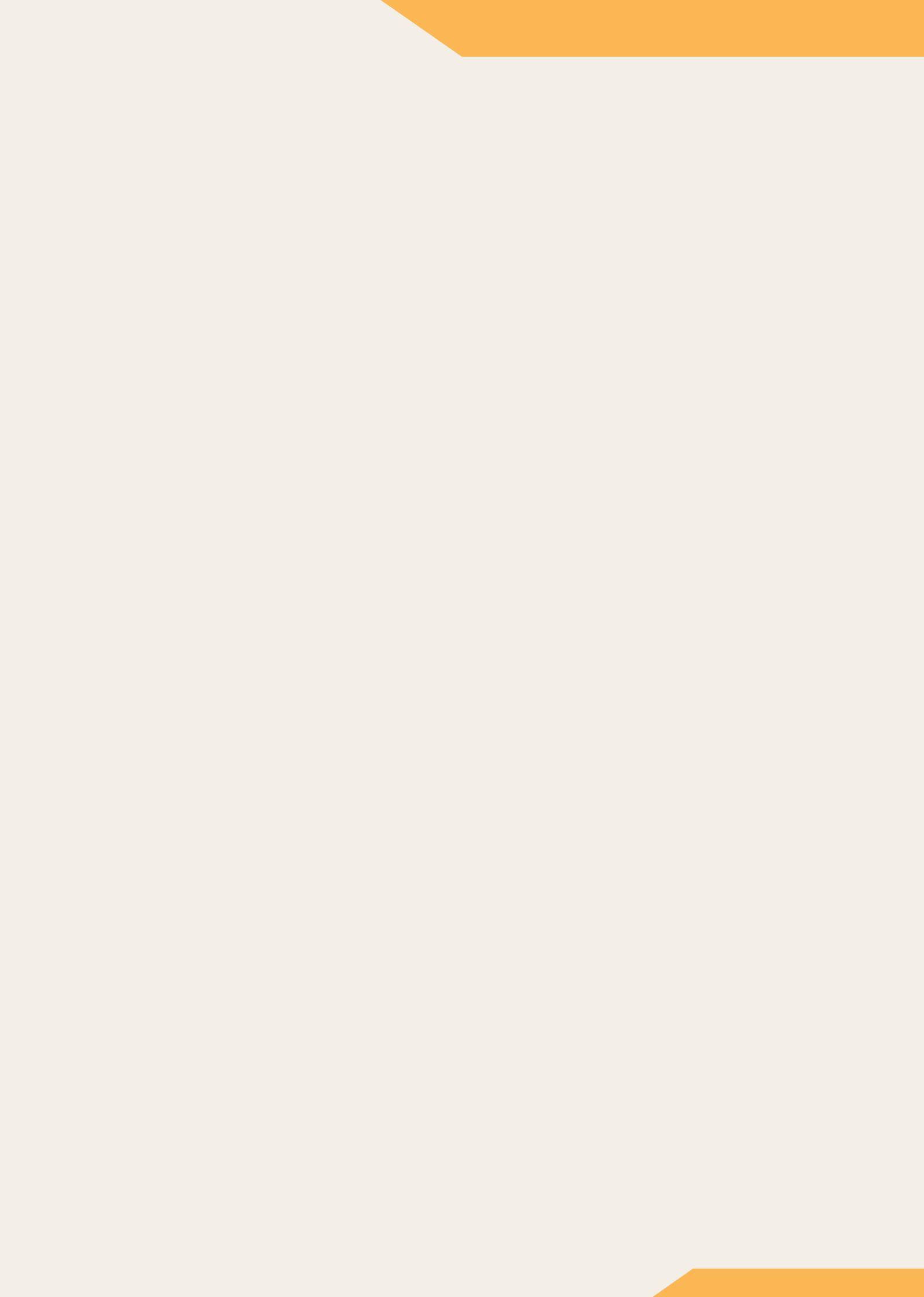
Dictionary

Nouns/pronouns

- **ga** 'I'
- **tson** 'you FOR'
- **tse** 'you NFOR'
- **le** 'he'
- **li** 'she'
- **na** 'it AN'
- **da** 'it INAN'

Verbs

- **stunva** 'go'
- **kenunva** 'come'
- **leshva** 'eat'
- **sokva** 'like'



04

Multiverb Constructions in Hapi

by tryddle

"We can't say it with one word."

(1) **póxihoo sóohai sóihi íkaíhaotóhikóa**

“Haven’t you ever dreamt like this?”

Hello all, my name is tryddle and in this article I will talk about multiverb constructions in my conlang Hapi. Some information about myself and Hapi: I’ve been conlanging for almost 4½ years (as of May 2021), and it was at that time that I joined several conlanging communities on reddit as well as on Discord. I’ve been active ever since and have made many good friends on the way. Hapi is my fifth conlang, and probably also the most fleshed out of these. Other conlangs of mine include Old Ataman, N!húnûž, Ɖwíʸixa and Bhang Tac Wok, but I won’t talk about those in this article.

Hapi features a minimal phonemic inventory similar to Pirahã, and is characterized by heavy verbal and nominal agglutination, with some fusional elements. Categories marked directly on the verb are person, tense, mode, some aspects, and switch-reference, as well as valency-modifying operations such as (anti-)passives and causatives. Other verbal categories include frustration, mirativity, egophoricity and modality.

Hapi’s morphosyntactic alignment is split-ergative, with nouns exhibiting ergative-absolutive alignment, while verbs agree with the S of intransitives and the A of transitives (making verbal alignment nominative-accusative). Hapi also features heavy employment of so-called ‘multiverb constructions’: serial verb constructions (SVCs), auxiliary verb constructions (AVCs) and syndetic verb constructions (SynVCs), which I will discuss in this article.

This article is a continuation of a [reddit post of mine](#), which was about SVCs. You might notice some similarities between that post and the first part of this article; this is because I re-used the reddit post so that I don’t have to re-write everything again.

Brief Phonological Sketch

Before we dive into this article’s main topic, let’s take a look at Hapi’s phonology so that you know how these example sentences are pronounced. Table 1 gives an overview of the language’s phonemes.

	Peripheral	Alveolar	Non-Alveolar		Front	Back
Stop	p~b <p>	t~r <t>	k~g <k>	High	i	o
Fricative	h <h>	s~ts <s>	ʃ~ʂ~χ <x>	Low	a	

Table 1: Phonemic inventory

As you can see in the table, most of these phonemes are in free variation. I won’t spend much time on the details of this; these phonemes have different values depending on the speaker’s age, gender or social status. Hapi’s phonemic inventory is very small, therefore this variation evolved due to the need for acoustic distinctiveness. The consonant phonemes also possess different allophones depending on the phonological context, but I won’t consider those here.

Hapi’s phonotactics are a straight-forward (C)V(V)(h). Each vowel may also take one of three tones (high, low and mid), which are marked by diacritics: high <á>, low <à> and unmarked mid <a>.

Now, before moving onto the actual topic of this article, I’ll have to discuss a specific terminology, viz. regarding the term ‘syndetic’.

On the Term 'syndetic'

To understand what ‘syndetic’ verb construction is or what ‘syndetic’ actually means, we must take a look at the typology of coordination. Haspelmath, 2004 states the following about coordination: “A construction [A B] is considered coordinate if the two parts A and B have the same status (in some sense that needs to be specified further), whereas it is not coordinate if it is asymmetrical and one of the parts is clearly more salient or important, while the other part is in some sense subordinate.” This is a preliminary definition that is revised later in that paper, but for our purposes it shall suffice. A basic coordinating constructions in English would be ‘*John and Mary*’ or ‘*I ate and slept*’. There are several types of coordination cross-linguistically depending on the nature of the connecting particle.

Asyndetic coordination is characterized by simple juxtaposition of the coordinands, as exemplified in (2).

- (2) nga- bakala nga- uia tula [Lavukaleve]
 1SG.POSS- *paddle*(M) 1SG.POSS- *knife*(F) *small*.SG.F
 “my paddle and my small knife” (Haspelmath, 2004, p431)

As can be inferred from their names, **monosyndetic** coordination features a single coordinator, while **bisyndetic** coordination involves two coordinators.¹ Examples for monosyndetic and bisyndetic coordination are given in (3) and (4).

¹The alert reader might have noticed that I called this third type of MVC ‘syndetic’, instead of mono- or bisyndetic. This is because such a construction can involve either one or multiple coordinators; I have decided that ‘syndetic’ would be the most fitting term in this context.

- (3) kwaangw nee du'uma [Iraqw]
hare and leopard
 “the hare and the leopard” (Haspelmath, 2004, p4)
- (4) dineje ʔiɬ midzish ʔiɬ [Upper Kuskokwim Athabaskan]
moose with caribou with
 “moose and caribou” (Haspelmath, 2004, p539)

Note that these are the basics of coordination in a typological aspect. There’s a lot more to it than what I just sketched out, and if you want to learn more about it I suggest checking out Haspelmath 2004. Now that I’ve clarified that, I will begin talking about the actual topic of this article: multiverb constructions.

Multiverb Constructions

When you saw the title of this article, you might’ve asked yourself: “But what are those multiverb constructions?”. In this section I will answer this question.

Multiverb constructions (hereafter MVCs) aren’t always the same cross-linguistically; in Hapi, they are characterized by consisting of multiple verbs that form a single prosodic unit.² Other than that, these types of constructions don’t have much in common, as they are all quite restrictive in their nature. I will now consider the structure and behaviour of serial verb constructions in Hapi.

Serial Verb Constructions³

Properties of Serial Verb Constructions

While serial verb constructions (hereafter SVCs) come in every kind of shape cross-linguistically, in Hapi there are constraints on how they may be formed. In the Hapi language:

- SVCs constitute several grammatical and phonological words,
- SVCs may be either contiguous or discontinuous,
- SVCs are always symmetrical,
- SVCs exhibit same-subject concordant marking and mixed marking of other grammatical categories,
- SVCs’ components must share at least one argument,
- SVCs’ components are not connected by a linking morpheme;

Now let’s go through this list one by one: the first entry of the list is quite self-explanatory, however I will still give examples of this. One-word SVCs can be observed e.g. in Mamaindê, a Nambiquara language of Amazonia, as can be seen in example (5); in contrast, example (6) from Hapi shows the same meaning, but with multiple grammatical and phonological words.

- (5) tu -ʔnĩu -ten -lat^ha -∅ -wa [Mamaindê]
get -return -DESID -3SG -PRS -DECL
 “He will bring it” (Eberhard, 2009, pp385-8, in Aikhenvald 2012)

²More research has to be conducted on the characteristics of prosodic units in Hapi.

³As I mentioned above, this section is heavily inspired by the aforementioned reddit post.

- (6) kó hóhi -a -o póói -a -o =kóá [Hapi]
 3M.SG.S *take* -2/3 -FUT *come* -2/3 -FUT =DECL
 “He will bring (it)⁴”

Next up, I will discuss the contiguity of SVCs. An example for non-contiguous SVCs both in the natural language Akan and in Hapi can be seen in (7a) and (7b). (8) exemplifies contiguous SVCs in Hapi. As can be seen in these examples, in a contiguous SVC, the verbs are right next to each other, with no lexical material in between, but in a discontinuous one, other words can come between them, e.g. verb objects, as in (7a) and (7b).

- (7) a. mede aburow migu msum [Akan]
 1SG.*take* *corn* 1SG.*flow* *water.in*
 “I pour corn into water (lit. [I pour (corn)]-[I flow (in water)])”
 (Schachter, 1974, p258, in Aikhenvald & Dixon 2006)
- b. tà hóhi -h xoh potohí -h =kóá pàah -hóo [Hapi]
 1SG.A *take* -1 *corn.ABS* *pour* -1 =DECL *water* -LOC
 “I pour corn into water (lit. [I take corn]-[I pour into water])”
- (8) tàhopí xíxí -h h - ákiih -h =kóá [Hapi]
 1.INCL.S *go.away* -1 ANTIP - *see* -1 =DECL
 “We will go away and see”

Now, you may ask, what do you mean by symmetrical SVCs? Well, to put it simply, symmetrical SVCs are constructions in which all verbal parts come from a relatively open, unrestricted class, while asymmetrical SVCs may have one ‘major’ (coming from an open class) and one or several ‘minor’ (coming from a closed class) verbs. An example for asymmetrical SVCs with a modal meaning comes from Warekena, as shown in (9):

- (9) ya =mia wa - be -pia wa - wenita [Warekena]
 NEG =PERF 1PL - *can* -NEG 1PL - *buy*
 “We cannot buy anything any more” (Aikhenvald, 2012, p306)

In this example, the major verb **wenita** is preceded by the minor verb **be**. Since **wenita** is from an open class (namely, a large set of lexical verbs), and **be** is a closed class verb (namely, one from a small set of modal verbs), the SVC may be classified as asymmetrical. In Hapi, there are no asymmetrical SVCs, so every single one of them contains at least two verbs from a relatively open⁵, unrestricted class. Nevertheless, auxiliary verb constructions are very similar to asymmetrical SVCs: they are composed of a lexical verb which comes from a relatively open class, and a closed class auxiliary verb which encodes grammatical categories such as negation or aspect.

⁴Some information on the different morphemic juncture markers that are used in this article: ‘-’ marks conjunct affixes, ‘=’ marks disjunct affixes and ‘==’ marks clitics. The distinction of these lies in the different morphophonological processes that apply to them. I will not expand on these processes here.

⁵I deliberately say that the major verbs come from a ‘relatively’ open class, as such open sets *can* be restricted. For example, there are SVCs which combine a path verb (*i.e.* verbs that show where you’re going, like ‘*approach*’ or ‘*return*’) and a manner verb (like ‘*fly*’, ‘*walk*’, ‘*scurry*’, *etc.*), where the manner verb still belongs to an open class, even though that class is smaller than the set of all verbs.

Another property of SVCs in Hapi is same-subject concordant marking; this means that in such a predicate, person is marked concordantly (*i.e.* the same marker is attached to all SVC components) on all verbs in the SVC. Cross-linguistically, there are several types of person marking: there is (i) concordant marking of the same subject, *e.g.* in (6), (ii) concordant marking of different underlying subjects as in (7a)⁶, (iii) truncated same subject marking, where one verb takes the normal person marker while the other one takes a truncated variant⁷, (iv) optional concordant subject marking, where the subject may be marked on both components, or just on one.⁸ However, some other grammatical categories are only marked once per SVC. Those include, but are not limited to: most aspectual disjunct affixes, the interrogative and imperative modes and the declarative disjunct;⁹ Tense exhibits optional concordant marking, *i.e.* it can be marked once or on each component. An example for those types of SVCs can be found in (10) and (11). In (10), the jussive mode is marked on each component individually, while the intermediate past suffix **-hi** is only marked on the first element of the SVC. In (11), the recent past marker **-xí** appears on each constituent, while the declarative disjunct, as expected, is only attached to the last element.

(10) káakaa -hi =kóa kóó háá-áa -hi háá-xíhaxi háá- [Hapi]
hope -INT.PST=DECL C JUSS-*say* -INT.PST JUSS-*tell.a.story* JUSS-
 títo
listen

“I myself was hoping you would tell me a story (before dinner)”

(11) tà xíxí -xí kókihíki -xí kàah -xí koíháa [Hapi]
 1SG.S *go.away* -REC.PST *to.fish* -REC.PST *kill* -REC.PST *go.home*
 -xí =kóa
 -REC.PST=DECL

“[...] I went (with Atah) to go fishing”

Moving onto the next item of our list, cross-linguistically it is most often the case that components of an SVC share at least one argument. While many serial verb constructions share subjects, there is a special sort of constructions where the O of the first verb is the same as the S of the second verb. Those are called ‘switch-function’ SVCs; a natlang example from Oro Win for them can be seen in (12a), while the corresponding Hapi example is showcased in (12b).

(12) a. awin pe’ pi’ n-an [Oro Win]
find sit completely 3SG.NFUT-3N
 “He set it down (lit. he found (it_o it_s) sat)” (Birchall, 2014, p122)

b. kó sapíí -a kòà aáxo -a =kóa [Hapi]
 3M.SG.A *put* -2/3 3INAN.SG.O *sit* -2/3=DECL
 “He set it down (lit. he put (it_o it_s) sits down)”

⁶Here, the two components have different underlying subjects but both receive the same surface subject marker.

⁷This appears in Dravidian languages, such as Koṇḍa (cf. Aikhenvald & Dixon, 2006, p41).

⁸This type of subject marking can be observed in the Taba and Baule languages (Bowden, 2001, pp300-3 and N’Guessan, 2000, p78 respectively).

⁹Note that *e.g.* the valency-modifying prefixes in slot -1 may encode their semantics separately; therefore, the scope of these markers is limited to the verb on which they are attached to.

Finally, the last property of SVCs in Hapi is that their components are linked *asyndetically*. This means that there is no linking particle connecting the SVCs' constituents. In contrast, *syndetic* verb constructions are characterized by the linking clitic **==ó**, which attaches to every verb in the construction.

Semantics of Serial Verb Constructions

Serial verb constructions in Hapi yield a wide range of semantics which I will consider in this section. Firstly, an SVC might express a sequence of actions or concomitant actions related together; in that case, the order of constituents is *iconic*, i.e. it follows the temporal sequence of the subevents. However, the predicate must describe subevents that are regularly or habitually connected with each other. Compare the well-formedness of (13a) and (13b). Since (13b) describes a habitual event, namely, the event of cooking a meal and consuming it subsequently, the SVC is acceptable. (13a) on the other hand does not describe a usual sequence of events, and is therefore *infelicitous*: its meaning may be described by a sequential verb construction as in (13c), but not by an SVC.

- (13) a. #kí -h katí -h =kóá =tíó [Hapi]
cook -1 dance -1 =DECL =INCH
Intended: "I started cooking and dancing"
- b. kí -h kaxá -h =kóá =tíó [Hapi]
cook -1 eat -1 =DECL =INCH
"I started cooking and eating"
- c. kí -h =kóá =tíó ==ó katí -h =kóá ==ó [Hapi]
cook -1 =DECL =INCH ==SEQ dance -1 =DECL ==SEQ
"I started cooking and dancing"

The next type of SVCs in the Hapi language is the *cause-effect* SVC. Once again, the component order is *iconic*, meaning that the verb of causation precedes the verb referring to the effect. This construction is showcased in example (14):

- (14) páó káhixa -xí kóòxáo xa -xí =kóá [Hapi]
 2SG.A *hit -REC.PST broom break -REC.PST =DECL*
"You broke the broom (lit.: [you hit it]-[it broke])"

The final type of SVCs in Hapi is the *synonymous verb serializing* SVC. In this construction, all constituents are synonymous with each other, and express a special intensity or repetition of the same action. While this is characteristic of Khwe languages, it also appears in Hapi. (15) exemplifies this process:

- (15) tópoi -a kaxá -a sáá -a =kóá =tì [Hapi]
chew -2/3 eat.meat -2/3 eat.fruits -2/3 =DECL =AGAIN
"(He) is eating very much, over and over again (even though he's full)"

There is another type of SVCs which does not appear in Hapi; nevertheless I will give a brief summary of it, since this article is also meant to elucidate the nature of serial verb constructions to you. *Manner* serial verb constructions can be found, among others, in

Toqabaqita, Ewe and Khwe; in those constructions, one verb may describe the way in which the action of the other verb was performed. An example for this can be found in (16), from Toqabaqita:

- (16) Wela e qiliano -na taqaa baqu [Toqabaqita]
child 3SG:NFUT *pile.soil.around* -3:O *be.bad* *banana*
 “The child piled the soil around the banana tree badly” (Aikhenvald, 2006, p29)

SVC Lexicalization

Lexicalization is the process in which a grammatical construction is ‘standardized’ and included into the language’s vocabulary as a set phrase or expression.¹⁰ (17) is an example from Tariana. The construction ‘he sleeps-he eats-he walks around’ refers to going on a longish hunting trip. In (18) from Hapi, the production of manioc beer is described by the sequence ‘she sits down-she spits-she waits-she make bad’.

- (17) dima di- hña di- emhani [Tariana]
 3NFEM.SG + *sleep* 3NFEM.SG - *eat* 3NFEM.SG - *walk.around*
 -pidana
 -REM.PST.REP

“He went on a hunting or fishing trip for several days” (Aikhenvald, 2012, p310)

- (18) akaxá -hi hãhi -hi kakí -hi kaai -hi [Hapi]
sit.down -INT.PST *spit* -INT.PST *wait* -INT.PST *be.bad* -INT.PST
 -áh =kóa
 -CAUS:NTR =DECL

“Last week, she made manioc beer”

So that’s about it for SVCs in Hapi. Now let’s move onto the second type of MVC in my conlang, namely, auxiliary verb constructions.

Auxiliary Verb Constructions

Properties of Auxiliary Verb Constructions

Similarly to SVCs, auxiliary verb constructions (hereafter AVCs) vary in their shape and functioning cross-linguistically. I have already mentioned asymmetrical SVCs above, and AVCs are very similar to them. Basically, an AVC is composed of a lexical verb (corresponding to the major verb in asymmetrical SVCs) and an auxiliary verb, which is “[...] an item on the lexical verb-functional affix continuum, which tends to be at least somewhat semantically bleached, and grammaticalized to express one or more of a range of salient verbal categories” (Anderson, 2006, p4). Now that’s quite a dense passage, as is often the case in linguistics.¹¹ An auxiliary verb is a word which often doesn’t bear that much lexical meaning anymore (*i.e.* it’s semantically bleached) and is used to convey the grammatical meaning of a verbal category, such as aspect or mood.

¹⁰Another important aspect of lexicalization is that the lexicalized construction gains a meaning that isn’t compositionally predictable from its part.

¹¹The reason behind this is that authors try to be as concise as possible, which yields such sentences.

AVCs in Hapi

Now that we have defined what an AVC is typologically, let's take a look at such constructions in Hapi. As I mentioned before, an AVC consists of two parts, a lexical part, and the part that encodes grammatical information; in Hapi, it works that way too: there is a lexical verb which carries the meaning and receives the dependent marker **-i** DEP, and there is an auxiliary verb, which absorbs all the inflection that would normally go onto the main verb. In (19), the basic structure of an AVC is exemplified.

- (19) hó -h kì- kahoó hóika -i tóó -xí -∅ [Hapi]
man's.name -ERG 3SG.POSS- *boat* *build* -DEP PROG -REC.PST -2/3
 =kóa
 =DECL

“Joe was constructing his boat [...]”

In this example, **hóika** is the lexical verb — as it carries the meaning — and **tóó** is the auxiliary, which expresses grammatical information, in this case the progressive aspect. As expected, **hóika** takes the dependent marker **-i** and **tóó** absorbs all the inflection.

Now, there are two types of auxiliaries in the Hapi language. There are non-prefixing auxiliaries (like you've just seen in example (19)), and prefixing auxiliaries. Prefixing auxiliaries work very differently from regular, non-prefixing auxiliaries. In a construction with a prefixing auxiliary, the lexical verb is attached to the auxiliary, and all the inflection is taken up by another auxiliary. This second auxiliary verb has a fixed form; it is always **tàa**. Example (20) shows how prefixing auxiliaries work:

- (20) páó híí kaxá= hákoo tàa -a =ka [Hapi]
 2SG:A *meal* *eat*= OBLIG AUX -2/3 =DECL

“You must eat your meal (or else you will be hungry later)”

In this example, the lexical verb **kaxá** is prefixed to the modal auxiliary **hákoo**, while the fixed auxiliary **tàa** takes up all the other inflection. To negate an auxiliary, the prefix **kaí=** is used.¹² An example for a negated prefixing auxiliary is given in (21); negating non-prefixing auxiliaries works accordingly.

- (21) kóíhi -hóo ahá háa= kaí= hákoo a- tàa [Hapi]
 forest -LOC *alone* *go*= NEG= OBLIG PSV- AUX

“One shouldn't go into the forest alone”

Now let's move onto the semantics of AVCs.

AVC Semantics

In Hapi, AVCs can express a range of different meanings, most of them belonging to the grammatical category of aspect; however there are also negation and modality auxiliaries. So far there are six auxiliaries documented in the main corpus;¹³ this data might vary from

¹²This form is derived from the negation auxiliary **kaíhao**, which I mention below.

¹³Therefore I will only focus on them in this study.

author to author, and more research has to be conducted in this field. In this section I will present the semantics of AVCs in Hapi, as well as give an overview of what AVCs may express cross-linguistically.

Probably the most widely used auxiliaries in Hapi are the two negating auxiliaries. While both of them negate the verb they are affecting, they differ in that one of them is used in past clauses, while the other one is used in non-past contexts. The form of the former is **kaíhao**, while the non-past auxiliary verb is **pí**. Examples (22a) and (22b) showcase the functioning of these auxiliaries.

- (22) a. *tàahopí ==áki pàah póhi táahi -i pí =kóa* [Hapi]
 1.INCL.A ==PERM *water sacred drink* -DEP NEG.NPST =DECL
 “We aren’t allowed to drink the holy water”
- b. *póxihoo sóoha -i sói -i í-kaíhao -tóhi =kóa* [Hapi]
 2 *do.like.this* -NTR *dream* -DEP Q -NEG.PST -DIS.PST =DECL
 “Haven’t you ever dreamt like this?”

In colloquial speech, the negative auxiliaries are often dropped, leaving the lexical verb with its suffix marker **-i**. The result of this process may be analyzed as insubordination.¹⁴ An example for this is given in (23).

- (23) *patía -h xòih -iìh hói -hi =kóa tapáxi hái* [Hapi]
woman’s.name -ERG *brother* -DAT *give* -INT.PST =DECL *candy therefore*
ài -i
do -DEP
 “Maria gave my brother a sweet so that I wouldn’t have to”

The whole construction using negative auxiliaries with a subordination marker might seem familiar to some of you, especially to those of you who have dealt with Uralic languages. This is because in some Uralic languages, negative polarity may also be expressed by an auxiliary verb, which then forces the lexical verb to take the so-called co(n)negative, a kind of dependent form; this construction inspired me to create a similar negation strategy in Hapi. An example for this from the Samoyedic language Kamass is given in (24).

- (24) *e -m nere -?* [Kamass]
 NEG -1 *be.frightened* -CONNeg
 “I am not, will not be frightened” (Künnap, 1999b, p25, in Anderson 2012)

Now back to AVCs in Hapi. Some aspects are also marked by auxiliaries; those are the progressive/habitual and the perfective aspect, marked by **tóó** and **kii** respectively. An example for an aspectual AVC is given in (25).

- (25) *tàah kohaíkoa -i kii -hi -∅ =kóa há tàsóo* [Hapi]
 1SG.A *dig.a.hole* -DEP PERF -INT.PST -2/3 =DECL EGO 1SG.INSTR
 “I dug a hole all by myself”

¹⁴This syntactic phenomenon describes a case where morphology that normally marks subordinate clauses appears in independent clauses. If you want to know more about this check out [this paper](#).

Other features marked by auxiliaries in the Hapi language include obligative modality (cf. (21)) and the verbal diminutive. For the sake of brevity I shall not expand on these here.

Cross-linguistically, aspect, negation and modality are not the only grammatical categories marked by AVCs. Other such categories include tense (26), voice (27) and ‘adverbial’ functions (28).

- (26) i -te a-pupun [Canela-Krahô]
 1 -PST 2- see
 “I saw you” (Popjes & Popjes, 1986, p130, in Anderson 2012)
- (27) bebí déh- w’a ‘ah-lá [Slave]
baby 3- burp 1 -CAUS
 “I burped the baby” (Rice, 2000, p209, in Anderson 2012)
- (28) ð- ʔɔtɔ tʃá -î épó [Eleme]
 2- AUX run -2PL afraid
 “you became very afraid” (Anderson, 2012, p37)

Inflection and Headedness

Now let’s take a closer look at the typology of AVCs, especially the inflection and headedness of these constructions. As I’ve stated above, all the inflection of a verb gets moved onto the auxiliary verb in non-prefixing AVCs, and onto *tàa* in prefixing ones. Cross-linguistically, there are different patterns a language’s AVC may fall into. Those are the **AUX-headed** pattern, the **doubled** pattern, the **LEX-headed** pattern and the **split** pattern.¹⁵ In an AUX-headed construction, the auxiliary verb is the inflectional head, like in Hapi. In a doubled pattern, both the auxiliary and the lexical verb are co-heads and share the inflection, while with a LEX-headed pattern, the lexical verb is the sole inflectional head. A split pattern may be observed when the inflection is split between the lexical verb and the auxiliary according to certain criteria. In (29) a AUX-headed pattern is exemplified, (30) showcases LEX-headed constructions; example (31) presents the functioning of a doubled pattern and (32) does so with a split pattern.

- (29) klə-kə li -kə -wɪn [Iatmul]
get -DEP AUX -PRS -1SG
 “I am getting it” (Foley, 1986, p144, in Anderson 2012)
- (30) nga- ion -i koho [Kaulong]
 1R- know -TR PRF
 “I already know it” (Ross, 2002, p401, in Anderson 2012)
- (31) miŋ ne- gaʔ -ru ne- laʔ -ru [Gorum]
I 1- eat -PST 1- AUX -PST
 “I ate vigorously” (Aze, 1973, p279, in Anderson 2012)
- (32) šk -ach w- ila [Jacaltec]
 CMPL -ABS.2 ERG.1 - see
 “I saw you” (Craig 1977, p60, in Anderson 2012)

¹⁵There’s also an additional pattern called the split/doubled pattern, but for brevity’s sake I won’t consider that here.

In (29), the similarities to Hapi are uncanny: the lexical verb takes the dependent form, while the auxiliary is the inflectional head (cf. the example from Hapi in (25)). In example (30), the lexical verb takes up all the inflectional markers, while the auxiliary *koho* PRF remains morphologically unmodified. The doubled pattern in (31) is pretty straight-forward: both the auxiliary and the lexical verb take the same inflectional markers. The example in (32) is a bit more complex. Here, the O is marked on the auxiliary, while the A is marked on the lexical verb, making this example follow the split pattern.

This concludes my presentation of AVCs. Next up, I'll consider the third and last type of MVCs, syndetic verb constructions.

Syndetic Verb Constructions

The main characteristic of this type of MVC is the presence of an overt linking clitic, ==**ó**, which is glossed as ==LINK or more commonly, ==SEQ. This is where the most prominent morphosyntactic distinction between SynVCs and other MVCs lies: there is a coordinating morpheme connecting the MVC's constituents. This is why I named this type of construction 'syndetic'; there is a coordinator, just like in usual coordinating constructions.

So how do SynVCs work? It's pretty simple. Since the sequential linker ==**ó** is a clitic, it attaches to the predicate on the phrase-level. This may sound complicated, but it really isn't. In most cases, it means that clitics appears directly after the verb, *or*, when there's a core argument coming after it, they attach to that. An example for this is given in (33), where the visual evidential clitic is attached to the postverbal argument, which is, in this case, the object. In (34) there is only a peripheral argument, and the clitic attaches to the verb itself.¹⁶

(33) *tàhòhí -h kàah -xí =kóa síiti ==to* [Hapi]
poison -ERG kill -REC.PST =DECL monkey.species ==VIS

"I saw that earlier today, the poison (of a dart) killed an uakari monkey"

(34) *hoó a -sáá -hàò =kóa ==pò xáoh -aóh -tah* [Hapi]
3F.SG.O PSV -eat -DIS.PST =DECL ==INFER crab -AUG -PERL

"She was eaten by a huge crab, they told me"

In a SynVC, ==**ó** is attached to every component of the construction. This is exemplified in (35). Here, there are two verbal components, and each of them receives the coordinator.

(35) *tà hóíka -tah háa -h -o ==ó xóati -h -o háiho -soa* [Hapi]
1SG.S big.tree -PERL go -1 -FUT ==SEQ search.for -1 -FUT berry -PL

==ó há
==SEQ EGO

"I'll be going via the big tree, and then search for berries (there)"

In a marginal case, a SynVC may only consist of a single verb phrase. This case, showcased in example (36), is very rare and is only seldomly used by the elderly. The meaning associated with that is to establish a causal relationship with a previously introduced topic.

¹⁶I shall not expand on Hapi syntax here, as it would go beyond the scope of this article.

- (36) hóaxáko taíí kohaa toih -a =ka ==ó [Hapi]
 3 glass hole open -2/3 =DECL ==SEQ
 “That’s because it is him/her who is opening the window”

Next up, I’ll give a brief overview of the semantics associated with SynVCs in Hapi.

The Semantics of SynVCs

The semantics of SynVCs in Hapi are quite straight-forward and you might have already inferred it from previous examples in this article. Basically, SynVCs are used to convey a **sequential**, **iconic** reading of the predicates that the construction is composed of. ‘**Sequential**’ means that the actions expressed by the predicates are happening one after another, while ‘**iconic**’ means that the actions happen in the same order as they appear in speech.¹⁷ (37) is another example for SynVCs in Hapi.

- (37) xóíi kipá sóh tãhokó hó-xóati -hi =kóa [Hapi]
 FRUST.NTR woman’s.name with 1.EXCL.S ANTIP-search-INT.PST=DECL
 ==ó tapí -h ohá -hi -áh =kóa tohípi
 ==SEQ man’s.name -ERG run -INT.PST -CAUS.NTR =DECL willingness
 -sáahi ==ó híó káhxi -hi =kóa =kah
 -PRIV ==SEQ but.DS catch -INT.PST =DECL =PUNCT

“I went in vain to search (it) with Kipá and Tapí let (it) escape but I caught it¹⁸”

As can be seen in (37), the different constituents of a SynVC need not have an argument in common and may be fully independent regarding their argument-structure. This concludes the discussion of SynVCs in Hapi.¹⁹

Coda

In what has preceded I have discussed the various types of multiverb constructions, including serial verb constructions (SVCs), auxiliary verb constructions (AVCs) and finally syndetic verb constructions (SynVCs). However there’s another marginal member on the MVC spectrum: switch-reference constructions. I didn’t include these because I could’ve easily written a whole nother article about that topic alone. Special thanks to miacomet, Nake, Astianthus, mareck and Meadow for inspiring me to write this article, as well as to Lichen for helping me condense my introduction.

Got any questions regarding MVCs in Hapi or the process behind constructing them? Did you find a typo or mistake I made? Have you got similar constructions in your own conlang? Reach out to me on Reddit at [u/tryddle](#) or on Discord at [tryddle#9377](#) and I’ll be glad to respond to you! Anyways, I hope you enjoyed this article! *Fiat Lingua!*

¹⁷An example for a construction that is not iconic might be some converbal constructions. If you’re not familiar with these, you can check out Haspelmath & König’s 1995 *Converbs in cross-linguistic perspective*.

¹⁸You might be confused on why the sequential linker here comes after **tohípisáahi**, a non-core argument. This is because in recent years, a construction using **tohípisáahi** in combination with a causative has grammaticalized to express the meaning that the action has been conducted without further involvement of the A, cf. the English ‘let’-construction.

¹⁹You might’ve noticed how there aren’t any examples from other natlangs in this section. That is because while such constructions may exist in some other languages, they’re often very distinct in their typological characteristics; while some of these similar constructions have been mentioned in Aikhenvald & Dixon 2006, the authors did not expand on that topic.

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²⁰I have included primary sources as well, in case you want to dive deeper into the presented languages.



05

Lexical Aspect in Yajéé

by P. A. Lewis (u/ratsawn)

Telicity and Its Applications

One of the Yajéé language's most interesting features is its way of dealing with verb phrase telicity. This is a feature that a speaker must consider when constructing any clause, because the telicity of a verb phrase alters the semantics of the grammatical aspects, and it can sometimes even change the uses of case markers.

What is Telicity?

In case a definition is needed, **telicity** is the state of completeness that a verb phrase is in. A verb phrase is considered to be **telic** if it has a clearly defined end point, and **atelic** if it has no such end point defined. In English this can most easily be tested for using the phrase *'for an hour'*. If you can add this phrase to a clause, it is most often atelic. A telic clause would require this phrase to be modified to *'in an hour'*. For example, *'John ate apples in ten minutes'* sounds funky, but *'John ate apples for ten minutes'* sounds much more natural. This distinction is heavily present in Yajéé and grammaticalized to a significant extent.

Inherent Telicity

In Yajéé, every verb has a number of features inherent to it. Many are familiar to us and are used in most languages, such as argument structure and transitivity.¹ However, in Yajéé an additional parameter is needed: inherent telicity. I specify "inherent" here because this can be changed through derivation, as we'll see in later sections.

The telicity of a verb or verb phrase can be defined as one of three choices: **stative**, **atelic**, or **telic**.² Luckily for the learner, and for our analysis, the inherent telicity of a verb is

¹Though this is barely a factor in Yajéé, as pronoun dropping in subject, object, and even oblique positions makes transitivity nearly irrelevant.

²While a stative verb is always technically atelic, stative verbs have no formal relation to atelic ones. Think of the split as a two way split between active and stative, with a further distinction made within the active group.

often what your intuition would guide you to. For example, the verb **na** ‘to believe’ is inherently stative, **resas** ‘to dig’ is inherently atelic, and **rajem** ‘to fall, to kill’ is inherently telic. However, this distinction is just something that has to be memorized most of the time.

(1) **Ni tá ɬayár is chínár chega.**

ni tá ɬayár is chínár chega
believe.PFV 1.SG exist.IPFV PROX.DEM king SUB

“I believe that he is the king.”

(2) **Resas ɣebída.**

resas ɣebída
dig.IPFV yesterday

“I was digging yesterday.”

(3) **Rajimbiba ɣa is wagwomodosómá’.**

rajim -iba ɣa is wagwómo -somá’
kill -INC day PROX.DEM moa -PTV

“I almost killed a moa today.”

Changing the Telicity

A close look at the above examples reveals that inherent telicity is fragile. The introduction of only a word or two can change the telicity of the clause. For instance, if example 2 was changed to something like ‘*I dug up a body yesterday*,’ the verb phrase becomes telic. Yajéé handles this with four **derivational** verbal prefixes:

Telic to Atelic	ii-/in-
Stative to Atelic	kwümah(e)-
To Telic	ɭ(a)-
To Stative	kwún(a)-

Table 1: Telicity Derivations

These derivations are transparently related to independent lexemes in the language, as this system was only developed around 120 years before the current state of the language.³ These lexemes are:

- **ii** ‘about, along, around’
- **kwümiṇah** ‘to grow, to develop’
- **ɭa** ‘one, once’
- **kwúna** ‘to sit’

Perhaps an in-depth discussion of the semantic motivations behind these words being used here is in order, but that would do little to explain their uses. Why don’t we start with that sentence above?

³In fact, this entire article would be meaningless in the **Hegwüü** dialect, which does not use this system.

(4) **İaresesimár şebída resasamuurogáš par.**

İa - reses - imár şebída resasamuur - gáš par
TEL- *dig* -CESS *yesterday* *dead.man* -ACC *into*

“I dug up a body yesterday.”

Example 4 shows the verb **resas** ‘to dig’ being used with the telic derivational prefix, forming the word **İaresas** ‘to unearth, to bury.’⁴ This is accompanied by an **aspect shift**, which will be discussed in the next section.

The pattern of derivations changing semantics extends to various lexemes. While most of the time the prefixes are used to accomplish grammatical alterations or accommodate adverbs which change the telicity of a clause, some, like **İaresas** above, change the semantics of a verb in a much more pure sense. For example, consider the following pairs⁵:

kaᅇnow	‘to be strong’	İagaᅇnow	‘to lift’
kwúna	‘to sit’	kwümahegwúna	‘to ride’
em	‘to pull’	inem	‘to suck’
lür	‘to give’	kwúnalür	‘to be generous’

These word pairs illustrate the rich derivational capacity of the Yajée system, making several lexemes from small numbers of roots. A few patterns jump out: Statives generally become actions characterized by the state when active; active verbs most often have a habitual meaning or become an adjective associated with the action; and while telic and atelic mostly overlap semantically, telic verbs generally describe less time-intensive tasks than atelic ones (such as ‘come’ versus ‘arrive’ or something similar).

Effects on Other Morphology

Grammatical Aspect

Yajée’s verbal inflection in finite clauses is limited to only four aspectual distinctions, using two main verb stems: the **imperfective stem** (S_i) and the **perfective stem** (S_p).

Perfective	S _p
Imperfective	S _i
Inceptive	S _p -iba
Cessative	S _p -imár

Table 2: Grammatical Aspects

This is clearly not very expressive without periphrastic or lexical constructions, and this is one of the reasons the Hegwüü dialect uses several auxiliary verbs to encode more specific aspects. However, in the standard language this is heavily mitigated by the way telicity alters the semantics of the four grammatical aspects.

⁴Despite being semantically its own antonym, this word would never be ambiguous due to the differing argument structures between its two meanings.

⁵These definitions are often misleading, as many words do not map to a single English word or idea very well. For example, the atelic verb **inem** is defined here as ‘to suck’, but obviously a sentence like ‘I sucked out every drop’ is telic again. This would use the telic form **em**, possibly with an adverbial or oblique to confirm the intended meaning.

	Stative	Atelic	Telic
Perfective	Stative	Perfective	N/A
Imperfective	Gnomic	Imperfective	
Inceptive	Inchoative	Inceptive	Defective
Cessative	N/A	Cessative	Perfective

Table 3: Aspect + Telicity Realizations

This makes the range of expression much more free for a Yajéé speaker. Important to note is that the telicity referenced here is the verb phrase telicity (*i.e.* the telicity after derivation), not necessarily the inherent telicity. This means that expressing the same idea with a verb root versus a derived form can often be expressed with a different affix. For example, ‘pulled’ is **imbimár** (the perfective stem of **em** with the **cessative** suffix) and ‘sucked’ is **inim** (the perfective stem of **em** with the Telic > Atelic prefix), despite both coming from the same root.

To define, **stative** refers to describing a temporary state, while **gnomic** refers to a permanent state or quality. **Inchoative** is the entering into a state, while **inceptive** is entering into an action. **Perfective** describes an action from the view of the whole action, while **imperfective** describes an action from a perspective of the action as ongoing, or within the action. **Cessative** describes the conclusion of an action. **Defective** describes an action that is nearly, or almost, completed.

A major caveat to this analysis is the state of the **inceptive** and **cessative** aspect markers. By the semantic nature of these affixes, all clauses formed with them are telic, and so no derivations will be used unless for semantic purposes. This means that the realizations of the suffixes semantically (*i.e.* whether the inceptive suffix encodes an inceptive, inchoative, or defective meaning) is determined by the inherent telicity of the verb.

(5) **Chíbádériba Hamaragáš.**

chíbádér -iba Hamar -gáš
go.PFV -INC NAME -ACC

“He started to go to Hamar.”

Note that adding the telic prefix to form the sentence **Ḷachíbádériba Hamaragáš** would change the meaning of the verb, not to mention place it in the wrong aspect. This sentence would sound a bit clunky to a native speaker, but would probably be understood as ‘*He almost took a trip to Hamar.*’

Nominal Semantics

Consider the phrases ‘*I hit a tree*’ and ‘*I hit trees.*’ If you run the telicity test from the beginning, you’ll find that the first is telic, while the second is atelic. The simple act of changing the number of the object changed the telicity of the entire phrase, altering the verb from describing a single action to describing a series of them. In Yajéé, this distinction is accomplished not by number, but by telicity derivations.

(6) **Imbimár wayegáš.**

im -imár way -gáš
steal -CESS fish -ACC

“I stole a fish.”

(7) **Inim wayegáš**

in - im way -gáš
A - steal.PFV fish -ACC

“I stole fish.”

By changing the telicity of this type of clause, **ii-** serves to make the object, **mo**, plural. While this is not ubiquitous as a plural marker,⁶ it can often function as one in atelic clauses that describe a repeated action acting on multiple patients.

In addition to creating new distinctions, this specific derivation can also resolve ambiguity in the noun case system. The **partitive case** has three main uses: it describes an indefinite amount or portion of a noun (*i.e.* some of X), it marks animate direct objects, and in **Mainland Yajéé**, it is used to reintroduce the agent in a passive construction. We’ll be focusing on the first two.

(8) **Rajimbimár kwongwosomá’ simëš.**

rajim -imár kwon -somá’ si -mëš
kill -CESS pig -PTV 1.PL -DAT

“He killed us a pig.”

(9) **Iirajim kwongwosomá’ simëš.**

ii - rajim kwon -somá’ si -mëš
A - kill pig -PTV 1.PL -DAT

“He killed us some pigs.”

These examples are more or less in the same vein as the previous two, as the plurality of the object is encoded more so in the derivation than in the case. In example 9, the noun phrase **kwongwosomá’** must be analyzed as ‘*some pigs.*’ This is because, in order for the phrase to still mean ‘*a pig,*’ the atelic derivation would have to be removed. The prefix in this example solidifies the meaning of the partitive case.

While this only works with **ii-**, it is worth noting the alterations these affixes can cause. Yajéé has a large amount of argument dropping, especially in discourse, and often these prefixes are the only way of discerning the intended arguments from the supply of potential referents.

Effect on Discourse

For example, if a discourse was a story about two friends taking turns attempting to ride a moa⁷, the speaker may say **Hedqsoo tá kwúnejiba** ‘*I started to sit on the ground as I watched*

⁶Yajéé has daughter languages which have grammaticalized this distinction into all clauses as an obligate plural marker of the object.

⁷very unsafe, would not recommend

him,’ omitting the arguments ‘*the ground*’ and ‘*him,*’ but both are perfectly understandable in the discourse.

However, the speaker could have said **Hedqsoo tá kwümahegwúnejiba** ‘*I started to ride the moa as I watched him.*’ This omits arguments in all the same places as the previous statement, but because the derivation disallows ‘*the ground*’ from being its object, ‘*the moa*’ is the only appropriate object for the verb in this simple discourse.

(10) **Hedqsoo tá kwúnejiba.**

hed -qsoo tá kwúne -iba
see -IPFV.CVB 1.SG sit -INC

“I started to sit (on the ground) as I watched (him).”

(11) **Hedqsoo tá kwümahegwúnejiba.**

hed -qsoo tá kwümahe- kwúne -iba
see -IPFV.CVB 1.SG A- sit -INC

“I started to ride (the moa) as I watched (him).”

Examples like these are incredibly common in discourse, and we are only just scratching the surface of the argument dropping that makes Yajée such a pain for foreign learners. Often a single pronoun can cover several different grammatical roles with only one mention depending on the nature of the various clauses.

I hope this has given the reader a good look at how telicity invades every clause in Yajée, and how it makes constructing sentences both an immense challenge and a beautiful art form.

Thank you for reading.

by Steve Gustafson (u/IHCOYC)

Verbal Constructions

Tengkolaku, a language isolate spoken by people who call themselves *Iwi* on *Palau Tengkorak*, or *Skull Island*, has a strongly analytic grammar with few derivational or morphological processes that occur within the boundaries of a word. Instead, the grammatical heavy lifting is done entirely by particles, bound but separate morphemes that at least in theory can be attached to any lexical word. These particles indicate the grammatical role of the words that precede them.

The basics of Tengkolaku syntax

The concept of ‘parts of speech’ is different in Tengkolaku than it is for many other languages. ‘Nouns’ are not differentiated from ‘verbs’ by their external form, endings, or any other difference in form. Rather, the chief division between Tengkolaku words is between ‘lexical’ or ‘content words’, that refer to persons, things, or actions; and ‘function words’, the particles that specify grammatical relations.

Among the function words, the primary distinction is between ‘phrase builders’, which include things like conjunctions and possessive markers; and ‘final’ or ‘top’ particles, that place the foregoing word or words in a specific grammatical relation. Phrases marked with top particles function as independent grammatical units. Pragmatics, rather than any formal requirements, determine where they appear in a sentence.

Lack of a copula, and its consequences

Tengkolaku is a zero copula language; there is no word that fulfils the office of the English verb ‘to be’. In its place, the default and unmarked ‘mode’ or ‘tense’ in Tengkolaku is the ‘gnomic’, for statements that do not require other marking for *tense, aspect, mode, or evidentiality (TAME)*. The default and unmarked ‘case’ in Tengkolaku could be called the ‘equative’, or ‘appositional’, ‘similiative’ or ‘definitional’ case, which describes one word in terms of another. Since there is no independent verb ‘to be’ to bear the burden of TAME, when those things are needed the lexical words must carry them.

An apparently ‘noun’-like Tengkolaku word like 𐄂𐄂𐄂𐄂𐄂 **nenebe** ‘house’ can also be interpreted as a verb (‘to be a house’, ‘it’s a house’, ‘they are houses’) and can be marked for categories like tense. Similarly, an apparently ‘verb’ like Tengkolaku word like 𐄂𐄂𐄂 **ngia** ‘go’ can also serve as a noun (‘going, travel, journey’).

The finite verb complex

Statements in which one participant experiences something or acts on another usually contain **finite verb phrases** in Tengkolaku. A finite verb clause in Tengkolaku takes any of three arguments, each of which has a distinctive set of particles:

- a **patient** or experiencer, always indicated by 𐄂𐄂 **an**;
- a **benefactive** or dative, always indicated by 𐄂𐄂𐄂 **nel**; and
- an **agent**, indicated by 𐄂𐄂𐄂 **kel** (animate beings with agency) or 𐄂𐄂𐄂 **kam** (inanimate beings without agency).

Finite verbs must have at least one verbal particle that specifies an aspect of TAME. The phrase defined by that particle is a finite verb phrase.

These particles that supply arguments to the finite verb do not differ in syntax or appearance from locative and other particles that supply descriptive data to a sentence. Thus 𐄂𐄂𐄂𐄂𐄂 𐄂𐄂 **nenebe an** ‘house *P*’ indicating that a house was a patient or ‘experiencer’ of some action, is not formally different from 𐄂𐄂𐄂𐄂𐄂 𐄂𐄂𐄂 **nenebe lā** ‘house *LOC*’, ‘at (the/a) house’.

The role of topic marking

Strong **topic marking** is another basic feature of Tengkolaku syntax. Topics in Tengkolaku can be marked pragmatically, by appearing in the conspicuous first or last positions in a sentence. More importantly, they can be marked explicitly, using the particle 𐄂𐄂 **yi**, the topic marker. **Yi** also contrasts with 𐄂𐄂𐄂 **men**, the ‘**antitopic**’ marker, usually glossed as ‘obviative’, that indicates a second participant. In any Tengkolaku narrative of any length with multiple participants, marked topics and antitopics are very likely.

The topic marker and antitopic marker are then available to use as pronouns, referring back to the participants they referred to when they were introduced. This is also a handy feature since the canonical personal pronouns, especially first and second person, are considered impolite in conversation. The marked topic, but not the antitopic, also serves as a default argument that should be supplied when needed; ‘missing’ arguments are about the topic.

The interplay between topic marking, obviative marking, equative statements, and finite verb statements can be illustrated by the following passage.

- (1) 𐄂𐄂𐄂𐄂 𐄂𐄂 :: 𐄂𐄂𐄂𐄂 𐄂𐄂 |
 𐄂𐄂𐄂𐄂 𐄂𐄂 𐄂𐄂𐄂𐄂 𐄂𐄂𐄂 :: 𐄂𐄂 𐄂𐄂𐄂𐄂 𐄂𐄂𐄂 :: 𐄂𐄂 𐄂𐄂𐄂𐄂 𐄂𐄂𐄂 𐄂𐄂 𐄂𐄂𐄂 𐄂𐄂 ::
 𐄂𐄂𐄂 𐄂𐄂 𐄂𐄂𐄂𐄂 𐄂𐄂 𐄂𐄂 |

Watu em, kawlu yi. Kawlu te impa nay, wa dūi gau, wa neba men an muo us, men te nawi no yi.

watu em kawlu yi kawlu te impa nay wa dūi gau
beginning BEFORE turtle TOP turtle AND alone ADV NEXT look IPFV

The second clause of this sentence is a finite verb clause with a pragmatically marked topic as agent; it's obvious the speaker is still talking about the cat.

So long as the basic equative, existential, or appositional character of the sentence is maintained, aspects and modes can be added, including those suggesting that the topic is an experiencer or patient of some process:

- (10) ከጳጳስ ጠቃላትክጳጳላዊ ከላይሰጋ ፤
 tolō baniatōnis tinde
tree green become
 “A tree is turning green.”
 Or: “Trees are turning green.”

So also are equative statements which are phrased as exhortations or commands:

- (11) ኮኮላ ከህ ፤
 kokā tu!
ready JUSS
 “Get ready!”

- (12) ግረግረ ለገህኑ ከህ ፤
 Onsa siku tu!
tiger like JUSS
 “Be like a tiger!”

- (13) ጳጳሰግረ ህጋህ ጠቃላትግረ ፤
 ngodam wel, balana
sleep OPT child
 “Sleep, child.”
 Or: “Let the child sleep.”

So can statements reflecting personal experience; these, too, do not require patients or agents so long as the content of the sentence is identity, existence, description, or definition:

- (14) ገጠጋህኛ ግረ ሰጋግረ ረገህ ፤
 idemū ngis lango sau
rotten CHANGE PST.DIS EXP
 “I know it turned rotten a long time ago.”

- (15) ካግረ ግረ ኮግረ ገረ ግረ ፤
 ungi na kange yi nos
son POSS sky TOP 1P
 “I am the Son of Heaven.”

III. Doing: the finite verb

Consider, for a moment, the English sentence ‘*Cats eat mice.*’ English speakers will interpret this sentence as a general statement about the habits of cats. The ‘simple present’ in English is no longer a simple present, but is used to describe general tendencies and habits instead. Still, the English general truism about cats requires a grammatical subject, a finite verb, and a direct object. Tengkolaku here offers choices.

How would such a sentence be rendered in Tengkolaku? Probably the better notional translation would be to make it a statement of being:

(16) 𑄀𑄁𑄂 𑄃𑄄𑄅𑄆𑄇 𑄈𑄉 𑄊𑄋𑄌 𑄍

gipi wamingi na maung
mouse food POSS cat

“Mice (are) the food of cats.”

Since Tengkolaku does not obligately mark plurality, this sentence is a gnomic statement about the habits of cats; mice are things they eat. This translation does not follow the English syntax, and a more literal translation of the English that mirrors the English syntax would be:

(17) 𑄀𑄁𑄂 𑄃𑄄 𑄅𑄆𑄇𑄈𑄉 𑄊𑄋𑄌 𑄍𑄎𑄏𑄐 𑄑𑄒

gipi an wamingi gan maung kel
mouse P eat GNO cat A

This too means ‘*cats eat mice*’, but with a slightly different focus; the mice are pointed out as victims of the habits of cats, and the agency of the cat in eating the mouse is also highlighted. Its force is closer to ‘*(the) cats are always eating mice.*’

By using a marker that indicates TAME, statements in the gnomic mode and present imperfect tense may be made using agents and patients, even as perfectivity and other categories of mood and tense can be added to equative statements. And labelling a patient, agent, or benefactive may be omitted in at least some sentences in Tengkolaku that include a finite verb.

In Tengkolaku, the patient role applies to voluntary and intentional acts undertaken by human and animate actors:

(18) 𑄀𑄁𑄂𑄃𑄄 𑄅𑄆 𑄇𑄈𑄉𑄊 𑄋𑄌 𑄍𑄎𑄏 𑄐𑄑𑄒

enlilna an imemi win ngia gau
queen P town towards go PRS.IPFV

“(The/A) queen is going towards the town.”

When no second argument is possible, the sole argument is designated as patient or experiencer even if there is no actual experiencer or the only possible experiencer is an unidentified third party:

(19) ԼՍԻԴՅԱՆ ՉԷ ՇՈՐՏԻ ԿԼ :: ՊԱՅՅՈՒ ՉԷ ՏԱԿԵՏԱ ՉՈՇ Ի

lupai an ēliu us; ainga an imupim oye
shot P hear PF; servant P cry NEXT

“A shot rang out; the maid screamed.”

In sentences like these, the nominal constituents are their own patients because no participant in the action is available to be cast in the role of agent.

In the same light, consider the opening sentences of the Lord’s Prayer:

(20) ՈՅԱԿՅՈՒՄԱՆ ԷՅ ԵՅԼԿԱՇՅԱ :: ԵՅՅՅ ԿԱ ::
 ԵՅՈՒԿԵՑ ՈՒ ՈՅՈՒՅ ԷՅ ԼԿ Ի
 ԿՅԱ ՈՅՈՐԱՅԱՆ ԷՅ ԼԿ ՉԷ ՅԱՅՈՒ ՈՒ ::
 ՉՈՐՅ ԷՅ ԼԿ ՉԷ ԱՅՈՐՅ ՈՒ ::
 ՈՅՅՈՒ ԿԱ :: ԵՅՅՅ ԿԱ ԼՏԻՅՈՒ Ի

Dompawi no nosumengi, kange um,
father INAL 1.PL.INCL sky ADESS

katū tu tabo no su.
holy JUSS name INAL 2

Ungi baliwi no su an ngia tu,
king realm INAL 2 P come JUSS

alo no su an malo tu,
desire INAL 2 P make JUSS

doa um, kange um sika.
earth ADESS sky ADESS like

“Our Father in heaven,
 may Your name be holy.
 May Your kingdom come;
 may Your will be done,
 on earth, like in heaven.”

These two opening paragraphs contain exactly two finite verb phrases, parallel in form: *ԿՅԱ ՈՅՈՐԱՅԱՆ ԷՅ ԼԿ ՉԷ ՅԱՅՈՒ ՈՒ :: ՉՈՐՅ ԷՅ ԼԿ ՉԷ ԱՅՈՐՅ ՈՒ* **Ungi baliwi no su an ngia tu, alo no su an malo tu**. The kingdom of Heaven here experiences its arrival, and the will of God here experiences its being brought about, and as such these statements are translated with finite verb phrases.

By contrast, in *ԵՅՈՒԿԵՑ ՈՒ ՈՅՈՒՅ ԷՅ ԼԿ* **katū tu tabo no su** ‘*may your name be holy*,’ the name is asked to be or become something. Despite the use of a verb-making jussive particle, the name is not marked specifically as a patient; rather, it is being equated with the desired condition of being holy. If a specific person or group of people were being urged to hallow the name (*i.e.* *ԵՅՈՒԿԵՑ ՈՒ ՈՅՈՒՅ ԷՅ ԼԿ ՉԷ ԵՅԼԿԱՇՅԱ ԵՅՈՐ* **katū tu tabo no su an nosumengi kel**, ‘*let us hallow Your name*’) then the name would be marked as patient and the introduced agent marked as well. The remaining statements of the prayer, similarly, are a series of locative phrases that are equative in form and do not require patient marking.

Patient omission

In the following example, because a topic has been specified, the second sentence with a finite verb phrase does not require an explicit patient:

(21) ነጅገ ደገ ነጅጅጅ ስገ ደገጊ ፣ ገገኑ ደገጅጅ ደገጅ ገጅገኑ ገገገ ገገገገ ገገጊ ጊገገገ ገገጊ ጊገገገ ገገጊ ፣

Ungi na kange yi nos. Idu nogo nay ongau lā pado ēs seda
son POSS sky TOP 1. Morn even ADV chair LOC gold MAT sit

gau.
PRS.IPFV

“I am the Son of Heaven. In the morning and evening (I am) sitting on a golden chair.”

The words ስገ ገገ **yi an** (TOP P) or nos an nos an (1 P) could be added to the second sentence, but they are omitted because they add nothing. A topic has been marked formally for this discourse. Topic marking means that missing arguments are assumed to refer to the established topic.

Monovalent finite verb phrases will in the vast majority of cases have patients only, not agents. The exception to this rule is where ordinarily a finite verb phrase would be transitive and have two arguments, but the ‘patient’ role is either irrelevant or trivial:

(22) ጅጅጅጅ ጅጅጅ ጅጅጅጅ ነጅገ ፣

Ngeongo gan onsa kel
kill GNO tiger A

“Tigers kill things.”

As is the case for many gnomic statements, this could potentially be recast as an equative statement without a finite verb:

(23) ጅጅጅጅ ጅጅጅጅ ደገገ ፣

Ngeongo onsa nel
kill tiger BEN

“Killing (is) for tigers.”

However, the finite verb sentence:

(24) ገገጅጅ ጊጊገገገ ነጅገ ገገገገገገ ገገገ

Lenu semili kel wamingi oni
woman yonder A eat HORT

“That woman needs to eat (something).”

(33) ຂຶ້ນຂຶ້ນ ຈຶ່ງ ບຳນານ ບຳ ກັບ ບຳ ມີ

Nenebe an kondili us iki kel
house P build PF here A

““Here-by-me” built the house.”

Or: “I built the house.”

In Tengkolaku, you don’t take credit and you don’t assign blame without being somewhat offensive. The three way deixis of Tengkolaku (here-by-me, there-by-you, yonder) corresponds to the first, second, and third persons and makes the avoidance of the pronouns easier. Rude to the point of obscenity would be:

(34) ຂຶ້ນຂຶ້ນ ຈຶ່ງ ບຳນານ ບຳ ຂຶ້ນ ບຳ ມີ

Nenebe an kondili us nos kel
house P build PF 1 A

“I built the house.”

The pronoun ຂຶ້ນ **nos** is encountered in ritual and narrative contexts almost exclusively, where it is allowed because it is presumed that the person to whom it refers is a character and not someone present who can hear what is being said.

Because Tengkolaku lexical words have no inherent part of speech, and the TAME categories can be added to any word, this allows them to be used as verbal predicates despite their apparent notional force:

(35) ມັງຄົມ ຈຶ່ງ ຂຶ້ນຂຶ້ນ ຈຶ່ງ ມີ

Tōlo an nenebe gan
tree P house GNO

“A tree is being used as a house.”

An agent can be added to such a sentence, which makes the colloquial English rendition sound a bit less odd:

(36) ມັງຄົມ ຈຶ່ງ ຂຶ້ນຂຶ້ນ ຈຶ່ງ ລຳບຳ ບຳ ມີ

Tōlo an nenebe gan simi kel
tree P house GNO monkey A

“Monkeys use trees for houses.”

Or: “Monkeys live in trees.”

The same laconic preference means that any of the Tengkolaku verbal particles create a finite verb phrase. Tense markers (distant future: ຂຶ້ນຂຶ້ນ ຈຶ່ງ ບຳນານ ຈຶ່ງ, **Nenebe an kondili wang**, ‘Some day a house will be built’), modal markers (jussive: ຂຶ້ນຂຶ້ນ ຈຶ່ງ ບຳນານ ມີ, **Nenebe an kondili tu!** ‘Let a house be built / Build a house’), aspect markers (present imperfect: ຂຶ້ນຂຶ້ນ ຈຶ່ງ ບຳນານ ຈຶ່ງ, **Nenebe an kondili gau**, ‘(they) are building a house’), and even evidential markers (hearsay: ຂຶ້ນຂຶ້ນ ຈຶ່ງ ບຳນານ ມີ),

Nenebe an kondili ba, ‘*I hear a house (is getting) built*’) – all of these markers create finite verb phrases.

The particles are also stackable (ᑲᑲᑲᑲᑲᑲ ᑲᑲ ᑲᑲᑲᑲᑲᑲᑲ ᑲᑲᑲ ᑲᑲ), **Nenebe an kondili wang ba**, ‘*I hear that a house will be built some day*’). Just as number is an optional category for the Tengkolaku noun phrase, and a specified patient or agent is not a required argument for the finite verb phrase, so also the TAME categories need not all be specified in a finite verb phrase. The speaker may specify as many, or as few, of these properties as she feels appropriate.

Conclusion

Tengkolaku gets much of its flexibility from its options to use either equative statements or finite verb phrases. The finite verb phrase is obligately marked for at least one of the categories of tense, aspect, mode, or evidentiality. Where such marking is felt by the speaker to be unneeded, it is often possible to recast the statement in the equative form. But where there are multiple participants in a statement regarding some action, a finite verb phrase is necessary.

English sentences, with their obligate marking of noun categories like number, and mandatory inclusion of a finite head verb, will seem wordy and unidiomatic if all of these features are sought to be reproduced directly in Tengkolaku. Good Tengkolaku style requires the identification of those parts of a sentence that can be stripped out for being too obvious or implied, and using only those markers that actually convey new information.

07

Verbs In Qo Yah Alimecar

by RainbowMusician

An overview

There are three types of verbs in **qo yah alimecar**. The type of each verb is determined by its etymology in the proto-language. Sound changes have wreaked havoc upon the original system of umlaut, and as the various systems failed, different backups were made, leading to the varied ways tenses can be marked. In addition to these tense markers, there are no pronouns. Subject and object are marked exclusively on the verb, and verbal morphemes are often difficult to tell apart because they impact each other.

Verbal Structure

Verbs fall into the three types of **i**, **a**, and **u**, marked in the dictionary with diacritics identical to the root vowels, ergo ^a is used to mark a-types, ⁱ for i-types and ^u for u-types. The root letter is the final vowel in the word's default form in the proto-language. There was no regular vowel loss between the proto-language and the modern one so the theme vowel can be guessed, but it is hard to tell for sure from the modern word. Each of the three types of verbs mark tense in a different way, as **i**-types show tense through umlaut, **a**-types use prefixes and **u**-types use suffixes. Excluding tense, the structure of a basic verb in **QYA** is as shown below:

(1) Aspect Root Voice-Subject-Object

Sentence Structure

The structure of sentences is a very strict VSO. The particle **i** is used to fill the subject or object slot if all the necessary subject/object information is marked on the verb, as in *'they are good.'*

(2) **puca akoqāqe i kuce**

puca ak^r -aq^l -aqe i kuce
 COP.PRS.IMP ACT -3.NOM -3.ACC DUM *positive*
 “They are good.”

In a sentence such as ‘*frogs are good*,’ the dummy particle **i** is replaced with frogs, the subject of the sentence.

(3) **puca akoqāqe teceñal kuce**

puca ak^r -aq^l -aqe teceñal kuce
 COP.PRS.IMP ACT -3NOM -3ACC *frog.PL* *positive*
 “Frogs are good.”

Note that due to complicated sound changes and the reduplicative method used in the proto-language to mark plurality, the majority of plurals in **qo yah alimecar** are irregular. While a singular frog is **teñal**, many frogs are **teceñal**. Some speakers have begun prefixing the word for many, **per**, to words to indicate plurality, but any plurals used in this text will be the standard ones.

Mutation

The superscript **f**, **r**, and **l** represent mutation. In almost every case, this mutation is phonetic, not phonemic, and produces only a minor effect upon the following vowel. This mutation can occur within words via affixation and between words. It shows the history of the changes causing the loss of the traditional umlaut system and the growth of the new and more diverse verbal construction.

It is clear that in the proto-language, there were three modifiers that could be attached to consonants. It is unclear exactly what those modifiers were, or exactly which consonants they could be attached to, but it is certain that they could be attached to stops. The modifiers were eventually lost, affecting vowels and leading to the modern six-vowel system from the archaic three vowels. In most cases, the vowels will simply be written using their modern orthography, but historical word-final modifiers would impact vowels across word boundaries and therefore need a way to be written in the modern system. These are now written with the aforementioned **f**, **r**, and **l**, representing front, rounding and length mutation.

The effects of these mutations are shown in the below table, with the rows representing the vowel quality in the proto-language and the columns representing the modifier attached to it.

	+r	+f	+l
*a	o	e	ā
*i	ü	i	ī
*u	u	ü	ū

Example

- (4) **qo fetüh aūkurūpe, tai mecaü aliaq i ta leftuy uluqutē. ta peliñ ikür i, ta ohleftuy amecukü i.**

[qo fetyx au:kurype tai me[ʃay aliaq i ta leftuj uluqute: | ta peliñ ikyɫ i ta oxleftuj ame[ʃuky i]

qo fetüh a^l- uk^r - ur-üpe ta-i mecaü ali-aq^l i
 HAB *apologize* PRS-ACT-1NOM-2.ACC IMP-FUT *deteriorate* PSV-3NOM DUM
 ta leftuy uliuqutē
set.of.stairs

“Sorry sir, but the stairs have fallen through,”

ta peliñ ik^r-ir i, ta oh-leftuy a^l- mec- uk^r-ü^f
 IMP *recommend*.PRS ACT-1NOM DUM IMP NEG-*ascend* PRS-NOM-ACT-2NOM
 i
 DUM

“and I recommend you do not ascend.”

The differences in the verb types are shown quite well here. This excerpt features a, i, and u-type verbs, so it is a good example to explain the mechanics of each. Below are the four verbs in the above passage, with all optional morphemes removed, as well as all tense information. The optional morphemes will be explained in detail later in this article.

English	No.	Type	Aspect	Root	Voice	Subject	Object
<i>I apologize to you</i>	1	u-type	qo HAB	fetüh	uk^r ACT	ur 1NOM	üpe 2ACC
<i>It has deteriorated</i>	2	a-type	ta IMP	mecaü	ali PSV	aq^l 3NOM	
<i>I recommend</i>	3	i-type	ta IMP	peliñ	ik^r ACT	ir 1NOM	
<i>That you do not ascend</i>	4	u-type	ta IMP	leftuy	uk^r ACT	ü^f 2NOM	

Here, I'll use T to represent the theme vowel. Many of the morphemes here are quite similar or, in some cases, identical. The first particle, **ta**, marks verbs 2-4 as imperfective in aspect. The **qo** in no. 1 marks it as habitual. After that is the voice marker, **Tk^r**- or **Tli**-. **Tk^r**- marks it as active while **Tli**- marks passive. Following that in verbs 1 and 3 is the first-person marker **-Tr**-, marking a first-person subject. Verb 2 has a third-person subject and, therefore, is marked with **-Vq^l**-. Verb 4 has a second-person subject so takes the affix **-T^f**- (except is u-types where **ü** is used instead of **i** in the second person), and then verb 1 finishes with an second-person object suffix, **Tpe**.

In the fourth verb, there's another affix besides the required verbal morphology. This **-mec-** infix makes a verb into a noun. It can be used as a vocabulary-building tool, but it is often also used to simply nest a verbal clause into another, as seen in this example.

The u-types are in the present, marked with the prefix **a^l**-, and the a-type is in the future, resulting in the **-i** suffix after the initial aspect particle. The i-verb is marked via umlaut, but as it is in the present, the vowel surfaces as an **i**. However, in other tenses the final vowel is altered. This can lead to confusion in non-native speakers, as what may look like

a perfectly innocent a-type in the present tense might be a similar-sounding i-type verb in the past tense.

Conclusion

qo yah alimecar is messy, complicated, and terrifyingly ambiguous, often to the detriment of learners. Even looking only at the primary dialect, the one described in this article, the verbs have many morphemes, only some of which are required. The vowel mutation, almost omnipresent in the language, confuses endings further, and as related languages tend to have much more conservative verb systems there are few non-native speakers who do not have trouble with the verbs as they are learning them.

qo yah alimecar is a fascinating language to study and hypothesize about, and I look forward to the next time I am called to document it.

08

Bjark'ümii Verbs

by Lichen

Volition, Magnitude, and Plural (Dis)Agreements

Like most languages, Bjark'ümii has verbs. They have no morphology for tense, aspect nor mood, apart from a volitional~nonvolitional distinction. There is polypersonal agreement, albeit limited to two arguments, so applicatives and noun-incorporation are prevalent. They also exhibit a productive 'magnitude paradigm' to create augmented and diminished verbs of related meanings.

Introduction

After experiencing the monstrous verbal paradigms of the likes of Latin, Arabic, and some languages of North America, I wanted Bjark'ümii verbs to be minimal in their morphology, trying to hold true to my motto for this language of "less is more." They still ended up with a reasonable amount of morphology, with each verb maximally having 15 forms (not including the various combinations of subject and object agreement prefixes), with all notions of tense and aspect dealt with lexically, through context, or from periphrasis. In this article, we will be looking at:

1. verbs at a glance;
2. the volitional nonvolitional distinction;
3. the 'magnitude paradigm' of augmented, plain, and diminished verbs;
4. the relationships between transitive verbs, intransitive verbs, and adjectives;
5. some notes about the agreement prefixes;
6. noun incorporation;
7. applicatives; and
8. handling reflexivity and reciprocity.

Verbs at a Glance

The template for verbs is as follows:

A/S-(P)-root-(aug/dim)-verbaliser-(applicative/converb)

The root contains the main semantic information, and exists in two grades: a long grade for volitionals, and a short grade for nonvolitionals (more on that in the next section). Roots are by default 'plain' within the magnitude paradigm, but can be augmented or diminished with a suffix - though in the modern language, sound changes have made the surface realisation these suffixes quite varied and different from their former forms as **-ʔ* and **-h* for the augmentative and diminutive respectively.

The verbalizer suffix tells you whether the verb is transitive *-aa*; or an intransitive change of state *-ai~e*; or an intransitive steady state *-ii*. The intransitive steady state verbs are what Bjark'ümii uses as predicative adjectives, while attributive adjectives are nouns.

The agreement prefixes agree in noun class. Intransitives take only an S agreement prefix; and transitives take A and P prefixes, which can sometimes be dropped (more on that below).

Lastly, a final suffix can be added for applicatives or converbs. In fact the applicatives derive from old converbs themselves, which suggests why a verb cannot contain an applicative and a converb.

Volitional~Nonvolitional

Effectively all verbs in Bjark'ümii have two forms: the volitional form (VOL), and the nonvolitional form (NVL). The volitional form is used for actions that are intended or willed by the A or S argument, while the NVL form is used for actions that are not intended or willed by the A or S argument. These sorts of pairs normally appear in English with separate lexical entries. Here are a few examples:

Volitional		Nonvolitional	
zaakaa	Watch, look at	skaa	See, catch sight of
vaahaa	Listen to	uhaa	Hear
kvaata	Think	kvtaa	Feel
skwaime	Fly (of a bird)	skwimai	Fly (of an object)
zraüñe	Spit	zrüñai	Vomit
hvjauwe	Cry (on purpose)	hvjuwai	Cry
tkjaase	Go to sleep	tkisai	Fall asleep
fai'aa	Let fall	fi'aa	Drop (on accident)

It is worth noting that the noun classes in Bjark'ümii are ranked in an animacy hierarchy, such that nouns that do not belong to the human or animate classes can only be the subject of a nonvolitional verb, and never that of a volitional verb.

The Magnitude Paradigm

Essentially all verbs can be augmented or diminished with the addition onto the root of two historical suffixes **-ʔ* and **-h* respectively. This process of changing a verb's 'magnitude' will slightly change the meaning, and this meaning goes beyond what the labels 'augmented' and 'diminished' might imply. For augmented verbs, the implication is that

the action is somehow culturally undesirable, excessive, magnified, or occurring all at once; while diminished verbs imply a sense that the action is culturally desirable, done to a degree that is ‘just right’, or occurring iteratively. I think these examples will prove elucidating:

Plain		Augmented		Diminished	
baume	run	bombe	flee	bomme	sprint
kihii	one	kikíii	alone	kifíi	singular, exceptional
vukii	hot	vukkii	too hot	vuhii	warm
mauríaa	bite	morkíaa	chomp, crunch	mohríaa	nibble, peck
kaafaa	drink	kaapfaa	guzzle	kaffaa	sip
vilkii	hungry	vilkkii	starve	vilhi	peckish
tpaülaa	tie up	tpaüllaa	truss up	tpaühlaa	decorate w/ string, ribbon
njusii	dark	njusawii	pitch black	njussii	dim
t'nii	red	t'ntii	flushed, inflamed	t'nnii	rosy-cheeked

As you can see, the surface realisations of the augmented and diminished forms vary depending on the sounds in the verbal root, but are regular enough that the magnitude morphology is still productive, even with loanwords. For example, the word ‘surf’ with its connotations of ‘surfing the web’ was loaned into Bjark’ümi and reanalyzed as having the root **sw-rf** thus yielding the verb **swarfaa** ‘to surf the internet’, with its augmented form as **swarpfaa** meaning ‘to waste time, procrastinate on the internet’.

Occasionally the augmented or diminished form, if it conforms to the phonotactic constraints of verbal roots, will be reanalyzed as a plain form verb and be re-augmented or re-diminished for further derivation. An example would be **t'nii** ‘red’ being augmented to **t'ntii** ‘flushed’, and then rediminished to **t'nsii** ‘flustered’.

Transitives and Intransitives

Verbs can either be transitive, intransitive change of state, or intransitive steady state. The intransitive steady state verbs function as predicative adjectives, and can only occur in the nonvolitional short grade; while the intransitive change of state verbs and the transitive verbs can appear as volitional or nonvolitional. The total 5-way form can be seen as follows, using the root **í-m** which has to do with being underwater.

TR.VOL	TR.NVL	INT.VOL	INT.NVL	ADJ
íaamaa	ímaa	íaame	ímai	ímii
Put in water, drown	Drop something into water	Dive down	Sink	Underwater, submerged

Very few verbal roots will actually have all five forms available to them. One constraint on this is that only patient-like intransitives will yield transitives in this paradigm; or, in other words, whenever an intransitive is made into a transitive, the S argument must become the P argument.

(1) Len kírmái

Len ki- ím -ai
 Len H- in.water.NVL -NTR

“Len sank in the water.”

(2) **Biiter Lent kjaiřaamaa**

Biiter Len =t ki- je- řaam -aa
 Peter Len =ACC H- H.OBV- *put.in.water* -TR
 “Peter pushed Len under the water.”

(3) **Len kiřaame**

Len ki- řaam -ai
 Len H- *in.water*.VOL -NTR
 “Len dove into the water.”

(4) ***Biiter Lent kjaiřaamaa**

Biiter Len =t ki- je- řaam -aa
 Peter Len =ACC H- H.OBV- *put.in.water* -TR
 * “Peter made Len dive into the water.”

Biiter kibubaańaa ni Len jeřaame

Biiter ki- bu- baańaa ni Len je- řaam -ai
 Peter H- ABS- *make.happen* C Len H.OBV- *in.water*.VOL -NTR
 “Peter made Len dive into the water.”

The difference between (1) and (2) is simply that the verb has been made transitive, with Peter becoming the A argument with Len going from S to P. However, to transform (3) to (4), making the verb transitive cannot give the impression that Len dove into the water of his own volition, as the transitive verb confers a certain degree of ‘patientness’ to the P argument. As such, a periphrastic construction is used, broadly meaning “*Peter made it that Len dive*”.

Verbs of motion provide a counterpoint to this. Despite having highly agent-like S arguments, verbs of motion have a transitive form, and when transitivized the S argument will become the new A argument instead of P. Consider the intransitive transitive pair **maase~maasaa**, which means ‘*to walk*’. The intransitive form **maase** takes a single agreement prefix for its subject and a locative adjunct for the destination, while the transitive form **maasaa** will take two agreement prefixes, one for the (now) A argument, and one for the location which has been promoted to the P argument. If the location appears as an overt noun phrase, it will have an accusative clitic attached to it to show it is the direct object. Both verbs still mean ‘*to walk*’. When both have specified locations, **maase** implies that the destination has not yet been reached, while **maasaa** does. Furthermore, if **maase** has no locative adjunct, it takes an indeterminate reading like ‘*to wander around*.’ Because the ‘transitive’ form of verbs of motion implies completed endpoints, it is used extensively for past tense or future tense actions.

Agreement Prefixes

Verbs, if intransitive, must take an agreement prefix matching the subject, while transitive verbs take two prefixes: one for the A argument and one for the P argument. The prefixes can be found in the table below.

I have included the glossing abbreviations in the table. Nouns in Bjark'ümii have an inherent plurality, such that all humans, animate, and inanimates are either lexified as singular or plural, and can be thereafter pluralized or singularized respectively. Locations and abstractions are singular by default. Broadly speaking, plural entities are those that are either

composed of many identical or similar parts, or things that behave in a unified way: *council, team, flock, rain, leaves, hair*.

	Proximate	Obviate
Human singular	ki <H>	je <H.OBV>
Human dual	t'l <H.DU>	
Human plural	ru <H.PL>	m <H.PL.OBV>
Animate singular	va <AN>	
Animate plural	zü <AN.PL>	
Inanimate singular	ta <INAN>	
Inanimate plural	lu <INAN.PL>	
Locations	so <LCN>	
Abstractions	bu <ABST>	

Number Agreement and Disagreement

Normally a verbal prefix will agree with the plurality of the noun it refers to:

- (5) **Biiter santwités kitaśaataa**
 Biiter santwités ki- ta-śaataa
Peter sandwich H- INAN- eat
 “Peter ate the sandwich.”

- (6) **Ra'tul rubura'taa**
 ra'tul ru- bu- ra'taa
council H.PL- ABST- decide
 “The council made a decision.”

However, agreement is not so straightforward when the noun phrase is composed of more than one noun. Agreement can either be with the plural prefix, which gives a reading that the action is done all together; or with the singular prefix, with the reading that the action is done distributively.¹

- (7) **Biiter źaMari źaLen santwités rutaśaataa**
 Biiter źa= Mari źa= Len santwités ru- ta-śaataa
Peter CONJ= Mary CONJ= Len sandwich H.PL- INAN- eat
 “Peter, Mary, and Len ate a sandwich (together).”

- (8) **Biiter źaMari źaLen santwités kitaśaataa**
 Biiter źa= Mari źa= Len santwités ki- ta-śaataa
Peter CONJ= Mary CONJ= Len sandwich H- INAN- eat
 “Peter, Mary, and Len (each) ate a sandwich.”

Similarly, if the direct object is plural, using the plural agreement will suggest the objects were acted upon all at once, while a singular agreement will suggest the objects were acted on one at a time.

¹Note as well that if a noun phrase is composed of nouns of differing animacy, the verbal agreement prefix(es) will agree with whatever noun is highest in the animacy hierarchy.

(9) **Biiter santwitsle kiruśaataa**

Biiter santwits -le ki- ru-śaataa
Peter sandwich -PL H- INAN.PL- eat

“Peter ate the sandwiches (all at once).”

(10) **Biiter santwitsle kitaśaataa**

Biiter santwits -le ki- ta-śaataa
Peter sandwich -PL H- INAN- eat

“Peter ate the sandwiches (one at a time).”

Lastly, numerical (dis)agreement can be used to define the specificity of a statement, whether it is a gnomic truth that applies to multiple individuals, or a single instance. Note in these examples with inalienable possession constructions that any agreement structures will agree with the possessor; in this case, the tree.

(11) **Svani na nunaktub tat'nii**

Svani na nu- naktub ta- t'nii
leaves of PROX- tree INAN- red

“The leaves of this (individual) tree are red.”

(12) **Svani na nunaktub lut'nii**

Svani na nu- naktub lu- t'nii
leaves of PROX- tree INAN.PL- red

“The leaves of this (species of) tree are red.”

Saliency Tracking

You will notice that for humans, there is a proximate obviate distinction. Generally, the person most salient to the discourse will be marked as proximate with all others obviate, and this is exemplified when someone is telling a story (whether about themselves or another). In more back-and-forth conversation, the marking will swap according to the needs of the conversation. Usually, named people and first- or second-persons will be introduced into a discourse with the proximate prefixes, and it is common that for a few sentences two arguments will be marked as proximate and ‘jostle’ for position until one is marked as the obviate. Likewise, when two strangers are introduced, they will usually refer to themselves using the obviate form out of deference for the other person by not making themselves the focus of the discourse, and indeed will refer to the other party in the obviate form as well lest they come across as overbearing or interrogatory. However, once someone asks a substantive question, that will settle the asker as the proximate, though it swaps back and forth a lot. A whole article could be written about this, and is best illustrated with a series of dialogues, but I hope this explanation suffices to get across the main idea.

On the subject of questions, when answering a polar question, one can answer by merely saying the verbal prefixes without including the verb. Note that this means that each instance of saying ‘yes’ or ‘no’ will differ depending on the classes of the nouns in question.

(13) **Zni kitaśaataaśtii?**

z= ni ki- ta- śaataa -śtii
Q= CMP H- INAN- eat -eaten

“Have (you) eaten (it)?”

(14) **Kita.**

ki- ta
H- INAN

“Yes.”

For those who are curious, the verb agreement prefixes derive diachronically from obligatory noun classifiers that followed nouns. Given that word order **was** strictly SOV, the generic sentence would be S CL O CL V. Objects could then be dropped while their classifier remained, allowing S CL CL V, and eventually these classifiers became affixed onto the verb.

Noun Incorporation

As mentioned earlier, in an earlier stage of the language nouns had to be followed by classifiers. A generic sentence would be S CL O CL V. However, a classifier might be dropped off the object, resulting in the object being reanalysed as a preverbal modifier, and eventually merging phonologically in a straightforward process of noun incorporation.

Old Language	Modern Language
?ulauk ki q’aim ta laataa Ulok ki q’aim ta laataa Man CL stone CL knap <i>‘The man is knapping the stone.’</i>	ulok em kitalaataa ulok em ki- ta- laataa Man stone H- INAN- knap <i>‘The man is knapping the stone.’</i>
?ulauk ki q’aim laataa Ulok ki q’aim laataa Man CL stone knap <i>‘The man is stone-knapping.’</i>	ulok ki’eblaataa ulok ki- ‘em- laataa Man H- stone- knap <i>‘The man is stone-knapping.’</i>

You will notice that the verb retains the **-aa** transitive ending even though its valency has ostensibly decreased seeing as it now takes only one agreement prefix. You will also see the nasal dissimilation that has occurred when ***q’aim** was absorbed into the verb wherein the nasal /m/ underwent fortition into /b/ due to it preceding /l/. Only direct objects can be incorporated in this way, so if an instrument were to be incorporated, it would need to be applicativized first to promote it to direct object before it could be incorporated (more on that in the Applicatives section below). According to the classification set out in Mithun’s *The Evolution of Noun Incorporation* (1984), this type of noun incorporation falls into Type 1 to create ‘bound activities’ and into Type 2 when applicatives are involved.

One other thing of note is that inanimates in Bjark’üimii can take a range of shape-specifying prefixes. I will not write out the whole list here, but suffice to say that sometimes in the old language not only would an object’s classifier be absent to create bound activities, sometimes the noun itself would be dropped, leaving only the shape specifier. Some shape specifiers when prefixed onto verbs would happen to create surface forms that conformed to the phonotactic constraints that govern verbal roots, and would be reanalysed as a new verbal root. One example is the verb **twaatwaa** ‘to squeeze,’ which has the root **tw-tw**. Historically,

the shape-specifier for flat things **s-** was prefixed onto the verb, innovating the root **stw-tw** which now yields the verb **stwaatwa** ‘to squeeze flat.’²

Applicatives

In the old language, the word order was SOVX, where X represents oblique arguments like indirect objects, locations, and instruments etc. Because of this, the classifiers of those arguments never became affixes on the verb, thus limiting verbs to have two arguments it agreed with. Noun phrases in modern Bjark'ümii take certain clitics to elucidate their roles in a sentence: ergative, accusative, locative, or instrumental. Subjects of intransitives take no role clitic. Note that nouns in their ‘expected role’ will take a null clitic. Humans and animates take a null ergative; inanimates take a null accusative; locations take a null locative; and abstractions take a null instrumental.

The use, then, of applicatives is to promote either locative-marked items (which includes indirect objects) or instrumental-marked items to being accusative-marked direct objects. As such, there are two applicatives. The first **-kn** promotes locatives~goals~recipients to direct objects and is derived from the verbal root **k-n** ‘give;’ and the second **-ur** promotes instrumentals to direct objects and derives from the verbal root **w-r** ‘use.’ The verb **kaanaa** ‘to give’ by default marks its recipient with the accusative clitic, and the theme with the instrumental clitic.

(15) Biiter Marit kjaikaana emb

Biiter Mari =t ki- je- kaana em =b
Peter Mary =ACC H- H.OBV- give stone =INSTR

“Peter gave Mary a stone.”

lit. “Peter gifted Mary with a stone.”

Bjark'ümii is not by default secundative, however. It depends on the verb in question, and effectively asks “if the action must take place with another animate participant besides the agent, then that non-agent animate entity will be marked as the direct object.” Thus verbs like ‘help’ and ‘trade’ and ‘chat’ all take accusative marking which in English would be more oblique: trade **with** someone, chat **to** someone.

(16) Biiter Marit kjaikaana

Biiter Mari =t ki- je- kaana
Peter Mary =ACC H- H.OBV- give

“Peter gave Mary (something, a gift).”

Sentence (15) shows that the oblique argument can simply be dropped with no morphological or syntactic consequence to the rest of the sentence. But suppose someone had asked us ‘**What did Peter give?**’ and we wanted to say ‘*Peter gave a stone (to Mary).*’

²Sometimes this crops up as **stwaastwaa** due to the semi-onomatopoeic nature of this verb. When native speakers are asked about the difference between **stwaatwaa** and **stwaastwaa** they comment that the latter is somehow ‘more flat.’

(17) **Biiter em kitakaanor (Maris)**

Biiter em ki- ta- kaanaa -ur (Mari =s)
Peter stone H- INAN- give -APPL.1 (Mary =LOC)
“Peter gave a stone (to Mary).”

When the stone is promoted using the instrumental-to-accusative (APPL1) applicative suffix **-ur**, it causes Mary to be demoted and acquire the locative clitic, and causes the agreement of the verb to change from agreeing with Mary with H.OBV to agreeing with the stone with INAN.

Now, let us consider the situation where we wish to promote a locative argument to an accusative one. The verb **kaavaa** ‘write’ comes from a verb meaning ‘to notch into wood.’ It does not necessarily require a second animate participant, and as such will take a locative argument for the goal or beneficiary of the writing, as in the following:

(18) **Biiter kitakaavaa Maris**

Biiter ki- ta- kaavaa Mari =s
Peter H- INAN- write Mary =LOC
“Peter is writing (something) to Mary.”

Suppose, then, that we wanted to answer the question ‘Whom did he write to?’ This supposes dropping the argument of whatever is written, and promoting Mary in its stead, which we shall accomplish using the locative-to-accusative applicative (APPL2) **-kn**.

(19) **Biiter Marit jekikaavakn**

Biiter Mari =t je- ki- kaavaa -kn
Peter Mary =ACC H.OBV- H- write -APPL.2
“Peter wrote to Mary.”

Reflexivity and Reciprocity

In many languages readers will be familiar with, reflexivity is accomplished through the addition of a self-referential pronoun (such as in the French, **je me lave** ‘I wash myself’) or perhaps a suffix on the verb (such as Russian **одеваться** ‘to get dressed’). In Bjark’ümii, reflexivity is encoded with a particular verb **sükzai** meaning ‘to do to itself’ that takes an adjunct in the form of a nominalized verb to provide the main semantic information.

(20) **Biiter kisükzai tpülu**

Biiter ki- sükzai tpül -u =Ø
Peter H- REFL.NVL tie.NVL -NMLZ =INSTR
“Peter tied himself up (i.e. got tangled up).”

(21) **Ra’tul rusükzai sku**

ra’tul ru- sükzai sk -u =Ø
council H.PL- REFL.NVL see.NVL -NMLZ =INSTR
“The council saw itself.”

Reciprocity is achieved by combining the reflexive verb with a plurality prefix disagreement. In the first sentence there is normal agreement, with a reflexive sense; and in the second sentence there is plurality disagreement, with a reciprocal sense.

(22) **Biiter źaMari t'lsükzai sku**

Biiter źa- Mari t'1- sükzai sk -u =Ø
Peter CONJ- *Mari* H.DU- REFL.NVL *see*.NVL -NMLZ =INSTR

“Peter and Mary saw themselves.”

(23) **Biiter źaMari kisükzai sku**

Biiter źa- Mari ki- sükzai sk -u =Ø
Peter CONJ- *Mari* H- REFL.NVL *see*.NVL -NMLZ =INSTR

“Peter and Mary saw each other.”

Conclusion

I went into creating this language with a few constraints I wanted to stick to, and the results you see above are simply consequences of it. One constraint was that I wanted verbs to polypersonally agree with a maximum of two arguments, which I then evolved through guided evolution, and the applicatives and noun incorporation were a side effect of that. Another of my constraints had been having default singular and default plural nouns, and with a little antithetical thinking along the lines of “What if the numerical agreements *disagreed*?” the plurationality patterns arose outlined above. All in all, I think the system is coherent, and most importantly, pleasing.

09

Roots in gan Minhó

by mareck

And their morphology

The category of **roots** is the backbone of **gan Minhó**, being the only open class¹ of lexemes in the language. Thus, they take a variety of inflectional morphology that corresponds to both nominal and verbal usages in other languages with such a distinction.

Introduction

Initially (and canonically), roots in **gan Minhó** were intended to explore **omninominativity**, a proposed counterpart to **omnipredicativity** in which roots are underlyingly predicates (or, more simply, verbs). Omninominativity instead designates roots as underlyingly being nominal, or nouns. I think there is some analysis of Tagalog having primarily nominal roots, from which verbs are derived via voice affixes, but the terminology isn't standard and I don't know if that was just a crackpot theory or a legitimate concept. Either way, I latched onto the idea and decided to explore the idea.

Despite this, it is probably better to analyze **gan Minhó** roots as being **precategorical**, wherein roots have neither nominal nor verbal properties until words with such characteristics are derived from them (although there is some reasoning for the omninominative interpretation). It is a moot point in my opinion, and I don't let deep, arbitrary analyses get in the way of my enjoyment.

In this article I will explore the morphology and related phenomena regarding roots in **gan Minhó**. First, I will define what roots are and how they are used. Then, I will describe the various morphological processes that roots may undergo. I will not be discussing in detail secondary phenomena, those being applicatives and evidentiality proper.

In glosses, the first line will be in the romanization rather than the native script; this romanization is phonetic, and reflects such processes as obstruent voicing, sonorant denasalization, and high vowel sonority alternations.

¹An open class being a class of words that readily accepts new members.

The root

As prefaced, the **root** is the sole open class of words in **gan Minhó**. As such, they take the role of both verb and noun, predicate and argument (I treat these, respectively, as being equivalent in **gan Minhó**). The distinction is primarily syntactic, and is related to information structure (as syntax and information structure interact intimately in the language)².

By default, a given, bare root takes the reading of a mass noun, referring to an indistinct amount of something or to a class of things. Generally, more “nouny” roots will simply be given nominal readings, while more “verby” roots will have readings akin to an entity characterized by a state (*‘that which is...’*). For example:

- **gót, ktv-, -kkódv**³ /kót, ktu, kkótu/ [gót, kt̪β, kkód̪β] ‘food, flatbread’
- **bathà, pt̪ha** /pathà, pt̪ha/ [bā̃th̃, pt̪yã] ‘mallard duck’
- **aná** /aná/ [ʔãṅá] ‘(that which is) tall’

Roots and their stems will be explained later.

From this, they are freely derived into predicative (verbal) and argumentative (nominal) uses. Predicative uses are derived via **mode affixes**, while argumentative ones are derived using **determiners**. In both instances, roots also take morphology for the categories of **state** and **number**, each of which has varying interpretations depending on the resultant predicative or argumentative derivation of the root.

The inflectional morphology of roots may thus be described as being **macrofunctional**, a concept that I enjoy exploring in my conlangs. I define it as the unification of more specific categories into larger, more overarching ones; wherein many seemingly disparate usages of a morpheme may be described as a single underlying function.

State and number are generally expressed via stem changes, affixation, or a combination thereof.

The stems

Roots come in two classes, which are then subdivided into subclasses and/or stem classes, which are determined by the phonological shape of the final foot of the root. A foot in **gan Minhó** is defined as a bimoraic unit, such as CVCV, CVV, CVC, and so on.

Mutable roots take at least two stems, which are formed via root-internal changes. **Immutable** roots have a single stem. Both classes have two subclasses.

Mutable roots come in **strong** and **weak** subclasses, although there are additionally three types of strong roots: **strong I**, **strong II**, and **strong III** roots.

Strong roots take two stems: the **alpha** (α) and **beta** (β) stems. Strong I alpha stems end in a -VCV pattern, and regularly take systemic vowel alternations to derive the beta stem from the alpha stem. There is often some sort of tone movement (if tone is present in the root), and there may also be other irregularities or even suppletion at play.

Regular vowel alternations of strong I roots are as follows:

²The details of this relationship is beyond the scope of this article, but in short the predicate of a clause is focal, and the primary argument (“subject”) of a clause is topical.

³This root takes an additional third stem, which is not relevant to this article.

→	i	u	u	e	a	o
i	e-i	i-a	i-o	i-i	i-u	i-u
u	u-e	a-u	u-o	u-i	u-u	u-u
u	u-e	u-a	o-u	u-i	u-u	u-u
e	i-i	e-a	e-o	i-e	i-a	e-u
a	a-e	u-u	a-o	a-i	u-a	a-u
o	o-e	o-a	u-u	o-i	u-a	u-o

Wherein the left column is the first vowel and the top row is the second vowel of the final -VCV shape.

- **ugi** /uki/ [ʔugɪ] → **uge** /uke/ [ʔugɛ] ‘*drink*’ (regular vowel alternation)
- **nówi** /nómi/ [nóβɪ] → **nowé** /nomé/ [noβɛ́] ‘*lumber*’ (regular vowel alternation, tone movement)
- **mewi** /memi/ [mɛβɪ] → **mawi** /mami/ [mãβɪ] ‘*animal food*’ (irregular vowel alternation; expected /e-i/ → /i-i/)
- **gowo** /komo/ [goβo] → **gàn** /kàn/ [gãŋ] ‘*ear of corn*’ (completely irregular)
- **míri** /míni/ [míɾɪ] → **svgì** /sukì/ [zβgì] ‘*bobcat*’ (suppletion)

Strong II roots end in a -C₁C₂VCV pattern, and strong III roots in a -C₁C₂V(C) pattern. They insert a vowel between the C₁ and C₂ to derive the beta stem from the alpha stem. There is often some sort of truncation of some segments.

Regular vowel alternations of strong II/III roots are as follows:

base vowel	i	u	u	e	a	o
alternate vowel	e	a	o	i	u	u

Wherein the top row of base vowels alternate with the corresponding vowel in the bottom row of alternate vowels.

- (II) **thìma** /thìma/ [tʰimã] → **dèhma** /tèhma/ [dɛ̀ymã] ‘*foreign food*’ (regular vowel insertion, segment truncation, tone movement)
- (III) **áppa** /áppa/ [ʔãppã] → **bźba** /púpa/ [bźbã] ‘*attitude, manners*’ (regular vowel insertion, segment truncation, tone movement)
- (III) **mánsa** /mánsa/ [mãŋzã] → **móna** /móna/ [mónã] ‘*point*’ (completely irregular)

Weak roots, like strong roots, also take two stems: the **complete** (σ) and **incomplete** (ç) stems; unlike strong roots, weak roots have no subtypes. They end in a -CVC pattern, and regularly truncate and/or metathesize the final consonant of the complete stem to form the incomplete stem. More specifically, the final -C₁VC₂ shape is metathesized to -C₁C₂V, and the vowel often undergoes alternation similar to strong II and III roots. Suppletion and truncation of segments also occur.

- **mìt** /mìt/ [mìt] → **mdè-** /mtè/ [mdɛ̀] ‘*hand(s), finger(s)*’ (regular metathesis and vowel alternation)

- **ibok** /ipok/ [ʔibok] → **ipko** /ipko/ [ʔipko] ‘be slow’ (regular metathesis, no vowel alternation)
- **gòn** /kòn/ [gòŋ] → **gnà-** /knà/ [gnà] ‘be fried’ (regular metathesis, irregular vowel alternation; expected /o/ → /u/)
- **nmás** /nmás/ [ŋmáʂ] → **nmsz-** /nusú/ [nmsz] ‘bear jerky’ (regular metathesis and vowel alternation, irregular transformation of /*nms/ to /nus/)
- **usyt** /usut/ [ʔuzut] → **asto-** /asto/ [ʔãʂto] ‘be full’ (suppletion and/or irregular vowel insertion)

Immutable roots come in **open** and **closed** subclasses. Compared to mutable roots, these are fairly straightforward: open roots end in a vowel /i u u e a o/, while closed roots end in a consonant /p t s k h m n/. Each subclass only has a single stem.

- (open) **horo** /hono/ [ʔofo] ‘rotten, moldy, bad (of food)’
- (closed) **sunbes** /sunpes/ [ʂunbɛʂ] ‘field’

Determiners

Determiners are used to instantiate and describe roots semantically and syntactically.

		MIN				AUG
		DIS	PROX	2ND	1ST	
ABS	F	te	sa	tuu	nos	kos
	M	tas	su			
	E		kan	si	ne	hon
DIR	F	hos	hu	ti	no	ko
	M		mi			
	E		men	tan	ni	ha

The primary use of determiners is to derive count roots from (default) mass roots, although they may also be used pronominally (to replace or refer to an argument-like root).

State and number on determiners are (mostly) identical to those of roots; however, determiners also take their own additional categories: **class** and **person**.

Class is a semantic division of three groups: **feminine**, **masculine**, and **edible**; these are mostly lexically-determined, in which a given root is assigned one class.

Person describes proximity and identity, and there are four grades: **first**, **second**, **proximal**, and **distal**. The first and second persons describe speech act participants, while the proximal and distal ones describe third-person referents.

State and number

State and **number** are mandatory categories for which roots must inflect. State describes the role and/or function of a root, and is a macrofunctional unification of (verb) voice and (noun) case. Number describes an amount regarding a root, and is a macrofunctional unification of (verb) valency/transitivity and (noun) number.

State and number are expressed fusionally via root/stem alternations as well as affixation.

	MIN	AUG
ABS	α	$\alpha/\beta\text{-}\langle:\rangle$
DIR	$\alpha\text{-n}$	
CON		β

Table 1: Strong

	MIN	AUG
ABS	σ	$\sigma\text{-:e}$
DIR	$\zeta\text{-na}$	
CON		$\zeta\sim\mu_1$

Table 2: Weak

	MIN	AUG
ABS	\emptyset	-t(e)
DIR		-n
CON		-s

Table 3: Open

	MIN	AUG
ABS	\emptyset	-i
DIR		-a
CON		-u

Table 4: Closed

Wherein strong I and II roots take the α -stem in the non-construct augmented inflection ($|\alpha/\beta\text{-}\langle:\rangle|$), and strong III roots take the β -stem. This inflection surfaces as gemination (or infix lengthening) of the medial consonant in the final foot of the stem ($\text{VCV} \rightarrow \text{VC:V}$).

Additionally, the non-construct augmented inflection on open roots surfaces as $|\text{-t}|$ after single vowels, and as $|\text{-te}|$ after vowel sequences.

In the inflection $|\zeta\sim\mu_1|$, the weak root takes the incomplete stem suffixed with a reduplicated mora μ_1 , which is reduplicated from the first mora complex (V or CV sequence) of the final foot of the σ -stem. Additionally, tone (if present on the μ_1 of the σ -stem) moves with the reduplicated mora. For instance, the weak root **gót**, **ktív-** takes the construct state **ktvgó** (and not **ktvgo*, *ktvdv*, etc.).

Also notable is that, in the mutable classes (strong and weak), the augmented number merges the absolute and direct states; conversely, in the immutable classes (open and closed), the absolute and direct states are merged in the minimal number.

State

State modulates the patientivity/agentivity and alignment of a root.

Absolute

The **absolute** state is associated with patientivity.

On predicates, it indicates that the subject is the patient and the object is the agent. It triggers ergative alignment, aligning the subject as the topical argument.

- (1) **gótka gan gére**
 kótka kan kéne
be eaten:ABS DET *fish*
 “as for the fish, it was eaten”

- (2) **góttek gan géne hos gmèsan**
 kóttek kan kéne hos kmèsan
eat:ABS DET *fish* DET *bear*
 “as for the fish, the bear ate it”

On arguments, it marks the S and O of ergative clauses, and the O of accusative clauses.

- (3) **gótka gan gére**
 kótka kan kéne
be eaten DET *fish:ABS*
 “the fish was eaten”

- (4) **góttek gan géne hos gmèsan**
 kóttek kan kéne hos kmèsan
eat DET *fish:ABS* DET *bear*
 “the fish was eaten by the bear”

- (5) **góttek hz gmèsan gan gére**
 kóttek hu kmèsan kan kéne
eat DET *bear* DET *fish:ABS*
 “the bear ate the fish”

It is used to mark the composition or origin of another root, as well as when a numeral or ideophone modifies another root.

- (6) **sz sunbesz das gowo**
 sui sunpesu tas komo
 DET *field* DET *maize:ABS*
 “the field of maize”

- (7) **sa nmós nen**
 sa nmós nen
 DET *person* *two:ABS*
 “the two people”
 “the pair of people”

Direct

The **direct** state is associated with agentivity.

On predicates, it indicates that the subject is the agent and the object is the patient, or that the agent and patient are similar or the same (having a reflexive/reciprocal meaning). It triggers accusative alignment, aligning the subject as the topical agent.

- (8) **ktúnga hz gmèsan**
 ktú-ka -n hu kmèsan
eat -DIR DET *bear*
 “as for the bear, it ate (itself)”

On transitive predicates, it may also have a simple causative meaning (much like the transitive absolute, except designating the agent as the topic). It may also indicate accompaniment, akin to ‘*join in doing...*’, or comparison, ‘*be as...as*’.

- (9) **góttek hz gmèsan gan gére**
 kót-k -te hu kmèsan kan kéne
eat -DIR DET bear DET fish
 “as for the bear, it ate the fish”
 “the bear and the fish ate each other”
 “the bear joined the fish in being eaten”
 “the bear is as eaten as the fish”

On arguments, it marks the S and A of accusative clauses, and the A of ergative clauses.

- | | |
|---|---|
| <p>(10) ktúnga hz gmèsan
 ktúnka hu kmèsa -n
 <i>eat DET bear -DIR</i>
 “the bear ate”</p> | <p>(11) góttek hz gmèsan gan gére
 kóttek hu kmèsa -n kan kéne
 <i>eat DET bear -DIR DET fish</i>
 “the bear ate the fish”</p> |
|---|---|

- (12) **góttek gan gére hos gmèsan**
 kóttek kan kéne hos kmèsa -n
eat DET fish DET bear -DIR
 “the fish was eaten by the bear”

It is also used to mark the possessor or descriptor of another root.

- | | |
|---|---|
| <p>(13) gan gíre hz gmèsan
 kan kíne hu kmèsa -n
 <i>DET fish DET bear -DIR</i>
 “the bear’s fish”</p> | <p>(14) sa gimes síman
 sa kimes síma -n
 <i>DET bear brown -DIR</i>
 “the brown bear”</p> |
|---|---|

Construct

The **construct** state is associated with modification.

On predicates, it indicates that the predicate is dependent. Its alignment is inherited from its superordinate referent, but defaults to ergative if none is present (when insubordinated).

(15) **ktugók gan gére hos gmèsan**
 ktu-k ~kó kan kéne hos
 eat ~CON DET fish DET
 kmèsan
 bear

“that the fish was eaten by the bear”

(16) **gan gére ktugók gan hos gmèsan**
 kan kéne ktu-k ~kó kan hos
 DET fish eat ~CON DET DET
 kmèsan
 bear

“the fish that was eaten by the bear”

(17) **gan gére ktugók hos gmèsan**
 kan kéne ktu-k ~kó hos kmèsan
 DET fish eat ~CON DET bear
 “the fish, which was eaten by the bear”

On arguments, it is used when a root is directly modified by another root, such as in denoting possession, description, composition, and origin.

(18) **gan gíre hz gmèsan**
 kan kíne hu kmèsan
 DET fish:CON DET bear
 “the bear’s fish”

(19) **sa gìwes síman**
 sa kimes síman
 DET bear:CON brown
 “the brown bear”

(20) **sz sunbesz das gowo**
 swi sunpes -u tas komo
 DET field -CON DET maize
 “the field of maize”

(21) **sa nmós de @tseri**
 sa nmós te @tseni
 DET person:CON DET Tseri
 “the person from Tseri”

The construct state is special in that it may “overwrite” the absolute and direct states. Thus, the choice of determiner for a construct-state root is determined by the root’s expected role; that is, if the root would have been marked as absolute, it still takes an absolute determiner, and similarly with a direct determiner.

(22) **góttek hz gìwes síman gan gére**
 kóttek hu kimes síman kan kéne
 eat DET bear:CON brown DET fish:ABS
 “the brown bear ate the fish”

Number

Number describes an amount regarding the root.

Minimal

The **minimal** number describes the minimal expected amount or minimal contextually-relevant amount of an argument.

(23) **a gmèsa**

sa kmèsa
DET *bear*:MIN

“a bear”

(24) **sa nàre**

sa nàne
DET *eye*:MIN

“two eyes”

“a pair of eyes”

Generally, when modified by a numeral or quantifier, the minimal number is used.

(25) **sa gmèsa nen**

sa kmèsa nen
DET *bear*:MIN *two*

“two bears”

It indicates that a predicate is intransitive, or that it takes a single core argument, S.

(26) **genga sa gmèsa**

kenka sa kmèsa
be hit:MIN DET *bear*

“the bear was hit”

Augmented

The **augmented** number describes a greater-than-expected amount of an argument.

(27) **gos gmèssa**

kos kmèsa -<:>
DET *bear* -AUG

“bears”

(28) **gos nàne**

kos nàne -<:>
DET *eye* -AUG

“eyes”

It indicates that a predicate is transitive, or that it takes two core arguments, A and O.

(29) **gerik sa gmèsa hos náman**

ken-k-i sa kmèsa hos náman
hit -AUG DET *bear* DET *person*

“the bear was hit by the person”

Mode affixes

Mode affixes indicate **aspect** and **form**. They are primarily used to derive predicates from roots.

	PRF	IMP	INS
PER	-k(a)	-ti	-hi
NPR	-m(o)	-s(e)	-pu
HON	-ni	-t(a)	-h(o)

Table 5: Mode affixes

Wherein the noted mode suffixes surface as $|-k, -m, -s, -t, -h|$ after a vowel, and as $|-ka, -mo, -se, -ta, -ho|$ after a consonant.

Form

Form is a vague mixture of mood/evidentiality and agreement centered around a **primary referent**.

The primary referent is usually the speaker, but switches to the listener in imperative and interrogative clauses.

Personal

The **personal** form is associated with realis events and a high degree of relevancy to the primary referent. Realis events may be quantified as occurring in all possible worlds ($\forall n$).

A high degree of relevancy is associated with direct experience. This includes directly witnessing an event as well as strong sensory evidence (visual/auditory). It is also used extensively in elicited speech (as a “default” form), which is why most example sentences are given in the personal form.

- | | |
|---|---|
| <p>(30) no góttek gan gére
 no kótte-k kan kéne
 DET eat -PER DET fish
 “I ate the fish”</p> | <p>(31) góttek gan gére hos gmèsan
 kótte-k kan kéne hos kmèsan
 eat -PER DET fish DET bear
 “the bear ate the fish”</p> |
|---|---|

- (32) **ktugók gan gére hos kmèsan**
ktukó-k kan kéne hos kmèsan
eat -PER DET fish DET bear
“the bear ate the fish”
Context: I witnessed it directly

It is important to note that the personal form is never used when describing the psychological states of other people (e.g., mental/emotional states, but also states of perception such as temperature); the impersonal or honorific must be used. Compare the following:

- (33) **sa sénnik gasak**
sa sénni-k kasak
DET cover -PER joy
“they feel joyful”

(34) **sa sénnim gasak**

sa sénni -m kasak
DET cover -NPR joy

“they feel joyful”

(35) **sa sénniri gasak**

sa sénni -ni kasak
DET cover -HON joy

“they (my superior) feel joyful”

Context: speaking of a matriarch

Impersonal

The **impersonal** form is associated with irrealis events and a low degree of relevancy to the primary referent. Irrealis events may be quantified as occurring in at least one possible world ($\exists n$).

A low degree of relevancy is associated with indirect experience. This includes all kinds of inference, reasonable assumption, and weak sensory evidence (taste, smell, and touch).

(36) **di góttém gan gére**

ti kótte -m kan kéne
DET eat -NPR DET fish

“you ate the fish”

(37) **góttém hz gmèsan gan gére**

kótte -m hu kmèsan kan kéne
eat -NPR DET bear DET fish

“the bear might/may have eaten the fish”

(38) **ktugóm hz gmèsan gan gére**

ktukó -m hu kmèsan kan kéne
eat -NPR DET bear DET fish

“the bear ate the fish”

Context: I inferred from fish scraps

It may also be used to indicate a low degree of agency from the primary referent, or a lack of volition/control over the event.

(39) **no góttém gan gére**

no kótte -m kan kéne
DET eat -NPR DET fish

“I accidentally ate the fish”

Honorific

The **honorific** form is similar to the impersonal form in that it divorces the speaker from event relevancy. It is used primarily in conversations in which one participant wishes to issue respect toward the other, or in clauses that involve someone toward which the speaker wishes to issue respect.

(40) **no gótti gan gére**

no kótte -ni kan kéne
DET eat -HON DET fish

“I ate the fish”

Context: spoken to a person of respect

(41) **sa gótti gan gére**

sa kótte -ni kan kéne
DET eat -HON DET fish

“they ate the fish”

Context: spoken about a person of respect

Because of its rather limited “canonical” use, it has been repurposed outside of formal and artistic speech. It is used for gnomic or generic statements, declarations of fact and *a priori* knowledge.

(42) **gótti hz gmèsan gan gére**

kótte -ni hu kmèsan kan kéne
eat -HON DET bear DET fish

“the bear ate the fish”

“bears eat fish”

It is also used as an indicator of evidentiality, for reported or hearsay information, or information acquired second-hand.

(43) **ktugóri hz gmèsan gan gére**

ktukó -ni hu kmèsan kan kéne
eat -HON DET bear DET fish

“the bear ate the fish, so I heard”

Both these functions combine into another usage, in which the construction is used narratively. It divorces the speaker from the event, emphasizing the non-participancy of the speaker. For this reason, it is often used when speaking of historical/mythical events and fictitious stories.

Aspect

Aspect describes the flow and structure of time regarding an event.

Perfective

The **perfective** aspect describes events that are completely bound; they are viewed in their entirety, or as being (temporally) complete, without regard to their internal structure.

With telic events, or events that tend toward a goal, the perfective generally entails culmination.

It may also be used to bring attention to the result of a completed event, to express that the event has occurred before (and that it is repeatable), and/or to indicate that the event was recently completed (focusing the end of the event).

In narratives, is often used to establish the setting and/or background.

(44) **góttek gan gére hos gmèsan**

kótte -k kan kéne hos kmèsan
eat -PRF DET *fish* DET *bear*

“the bear ate up the fish”
“the bear has (just) eaten the fish”

Imperfective

The **imperfective** aspect describes events that are unbound; they are viewed as having internal structure, or as being incomplete/ongoing. It may also indicate that the timeframe of the event extends past its expected duration.

It is broadly associated with incomplete events or events that continue beyond an expected point/duration (events that started in the past and continue into or continue to have relevance in the present), and is the aspect most commonly associated with future-like meanings. Without a future modal (of which there are two), any meanings relating to the future are usually near-future. This generally ranges from very soon/imminent to a few days, but may extend further depending on context.

It is often used to describe ongoing events within a narrative, or to express the “body” of a narrative.

(45) **góttedi gan gére hos gmèsan**

kótte -ti kan kéne hos kmèsan
eat -PRF DET *fish* DET *bear*

“the bear eats the fish”
“the bear is eating the fish”
“the bear is still/kept on eating the fish”
“the bear is going to eat the fish”

Instantive

The **instantive** aspect describes point-like events, changes of state, and event instances. It is used to bring attention to the anticipation of an event, and/or to focus the beginning of an event.

It is broadly associated with events that actually ongoing at or around the time of speaking. It is used to drive a narrative forward, emphasizing important moments and points of change.

(46) **góttehi gan gére hos gmèsan**

kótte -hi kan kéne hos kmèsan
eat -INS DET fish DET bear

“the bear is eating the fish, right now”

“the bear bit/bites (into) the fish”

“the bear started/starts to eat the fish”

“the bear is/was about to eat the fish”

With telic events, it may be used for perfective-like events without the entailment of culmination, but still entailing termination.

(47) **góttehi gan gére hos gmèsan dis mit gótka**

kótte -hi kan kéne hos kmèsan tis mit kótka
eat -INS DET fish DET bear but not be eaten

“the fish was eaten by the bear, but it (the fish) was not eaten”

“the bear started to eat the fish, but did not complete the task”

Conclusion

The root is the powerhouse of **gan Minhó**. This article is basically a wholesale copy of the respective sections of the grammar document proper of **gan Minhó**, which I am hesitant to release publicly (not in small part due to its perpetually-unfinished state), although some parts were removed or edited to varying degrees due to irrelevance. This article serves as a brief overview of the root morphology of **gan Minhó**, with additional background and meta information.

Thank you for reading!

10

Encoding modernity in a lexicon's organisation

by Aidan Aannestad

Motion and location verb classes in Mirja

Mirja is a personal language I've been working on for a number of years now. It has several artistic goals, but one of these is that it's meant to be a language fully immersed in the modern world—in effect, its lexicon should be a direct reflection of my own personal daily life and worldview. All natlangs in the modern era still carry with them a significant amount of historical baggage from their pre-modern use—baggage which is perfectly understandable and reasonable, but something I wanted to try getting rid of. As a result, Mirja's vocabulary takes as basic some things which we as natlang speakers are used to accessing through metaphors, such as the semantic space of interacting with digital information; and on the flipside, Mirja can struggle with things that most natlangs have little issue with, such as riding animals.

This modern perspective is much more pervasive in Mirja than it might be even in other languages with a similar modern perspective, though. Mirja's lexicon has a typological profile such that in any situation involving motion, location, or possession, the speaker has to include information about the objects involved in the situation. In Leonard Talmy's terms,¹ Mirja's verbs of motion, location, and possession (henceforth 'MLP') are **figure-conflation** verbs, where the verb lexically contains information about the object being moved or located, rather than the manner of the motion or location (as English does) or the path the motion is along (as Spanish does). As a result, an English verb like **have** has a huge number of potential Mirja translations, but those translations tell you quite a lot about what it is that is being had.

Overview of the system

I use the term 'MLP verbs' in this paper since motion, location, and possession verbs all group together in a number of ways in Mirja; and most importantly, verbs whose primary use is one of those types of meaning automatically have some derivational means of getting at the other two types. For example, **kata** 'for a train to move' has a derived form **katassa**

¹See e.g. Talmy's article in *Language Typology and Syntactic Description*, vol. 3, ed. Timothy Shopen, 2007.

‘for a train to be located’, and **ryky** ‘for a book to be located’ has a derived form **rykymava** ‘for a book to move’. Location and possession are more closely connected, in that possession is handled by simply using a location verb with an altered argument structure.²

(1) **Lijeere Rhakamappa rykykée**

lijere - ** rhakama - ppa ryky -ku -e
ring -COL ruler -POSS book.is.located -there.visible -INV

“There’s (a physical copy of) *The Lord of the Rings* there.”

(2) **norho Lijeere Rhakamappa ryky**

no -rV -* lijere - ** rhakama - ppa ryky
1SG -OBL -TOP ring -COL ruler -POSS book.is.located

“I have (a physical copy of) *The Lord of the Rings*.”

Excluding possession, there are three basic meanings which all MLP verbs have access to: being located, moving, and causing to move, as well as some additional derivations for specific subclasses of verbs. Different types of verbs typically take one of those three meanings as their most basic, and get at the other two via various types of derivation. For example, **ryky** ‘for a book to be located’ is a low-mobility object verb, and takes ‘is located’ as its base form; ‘cause a book to move’ is the derived form **rykyma**, and ‘for a book to move’ is the further derived **rykymava**. In contrast, a high-mobility object verb like **ussa** ‘for a leaf to move’ takes the ‘move’ meaning as basic, and has derived forms **ussattha** ‘for a leaf to be there’ and **ussala** ‘cause a leaf to move’. Some classes of verbs have somewhat different derivational morphology from other classes that take the same basic meaning—for example, a vehicle verb such as **kata** ‘for a train to move’ becomes **katami** ‘cause a train to move’ (i.e. ‘drive a train’) rather than **?katala**.³

MLP verbs together form something of a group, to the exclusion of verbs such as **ulhu** ‘cook’ or **maro** ‘be dead’—the derivational patterns in this article hold true for MLP verbs alone. Note that there should very much be words that are mostly in these categories but exceptional in some way, or words in unexpected categories, or any of a number of other kinds of irregularity; but as Mirja’s lexicon isn’t really developed very well yet, I haven’t found any exceptional words so far.

As a note, while MLP verbs have access to derivational patterns that imply causation, Mirja also has an inflectional causative **-sn**. Use of the inflectional causative usually implies a type of causation that’s much less semantically ‘bound into’ the action, for lack of a better word—a difference that in English can sort of be gotten at by comparing **roll a ball** versus **make a ball roll**. The exact differences still need some working out, though.

Categories of MLP verbs

There are so far seven separate categories of MLP verbs, each of which is discussed in no particular order below.

²I use two unusual symbols for glossing nonconcatenative morphology in Mirja—one asterisk represents the floating feature bundle that is a topic marker, and two represents the (C)VVCV# template that marks collective plurality.

³**Katala** does have a potential reading ‘cause a train to move by some other means besides driving it, e.g. pushing on it’, but this is odd and marked.

Static object verbs

This category primarily contains verbs describing the location or motion of objects that do not commonly move without human agency—e.g. stones, books, electronics, furniture, and so on. These take as basic the ‘be located’ meaning (e.g. **ikke** ‘for a laptop or other medium-sized portable electronic device to be there’), must be derived into ‘cause to move’ (**ikkema** ‘move a laptop’), and that form must be further derived into ‘move’ (**ikkemava** ‘for a laptop to move’). The last of these categories is fairly rare, and usually has to do with accidents and other sorts of not only unintended but also undesirable motion:

(3) no mallappa ikkemavapiketonasiite

no malla -ppa ikkemava -pike -tona -sii -t -e
1SG laptop -POSS for.laptop.to.move -off.of -table -fall -PST -INV

“My laptop moved as a laptop off of (whatever) table by falling.”

Or: “My laptop fell off the table.”

Static object verbs and mobile object verbs also share a special derivational form for carrying objects, **-so**: **ikkeso** ‘carry as one carries a laptop’.

Mobile object verbs

This category contains objects which are fairly likely to move without any human agency, such as balls and sheets of paper and so on. These verbs take the ‘move’ meaning as most basic (**xallhe** ‘for a liquid to flow’), and can be derived into ‘be located’ (**xalhessa** ‘for a liquid to be located’) and ‘cause to move’ (**xallhere** ‘pour or pump a liquid’).⁴

Vehicle verbs

Verbs relating to motion involving a vehicle are somewhat more complex than other verbs, as they have an additional possible derived form. These verbs usually take the ‘move’ meaning as basic (e.g. **sima** ‘for a car to move’), but alongside derivations for ‘be located’ (**simassa** ‘for a car to be located’) and ‘cause to move’ (or rather ‘drive/pilot’; **simami** ‘drive a car’), there is also a derivation for ‘take as transit’ (**simaane** ‘ride in a car’). The difference between the last two revolves around the agency of the subject—the subject of **simami** is actively directing where the car is going, while the subject of **simaane** is merely in the car and allowing some other person or force to direct the car towards whatever the subject’s destination is.

This results in something of an odd problem when attempting to handle situations where a human is riding on an animal, which has some independent volition but is being guided towards a destination nonetheless. There is no truly appropriate derivation—for e.g. **okko** ‘for a horse or other hoofed animal to move’, **okkomi** sounds as if the subject has replaced the horse’s brain with a computer to allow direct control, while **okkoone** sounds as if the horse needs little more guidance than a taxi driver might. Mirja speakers rarely ride animals, so this isn’t a particularly problematic gap for daily life; but it isn’t quite clear how one might handle historical situations!

⁴In the case of liquids in particular, it’s usually much more natural to describe interactions like carrying in terms of whatever container is being used. A phrase like **eno xalheso** ‘carry tea’ basically implies it’s being carried in cupped hands or some other similar very direct means; usually something like **eno kojaso** ‘carry [a bottle of] tea’ (from **koja** ‘for a bottle or other tallish cylindrical container to be there’) is more natural.

Human motion/location verbs

Human motion verbs are unusual in Mirja, in that they also contain information about the manner of motion—something lacking in most other verbs. These verbs specify not only that what is moving is a human, but also how that human is moving or being located: there are thus separate verbs for ‘walk’ (**su**) and ‘run’ (**tesse**). As a result, most of these don’t have derived forms like other motion verbs—rather than e.g. deriving **su** ‘for a human to walk’ into **?sutthy** (‘for a human to walk without moving?’), there is simply an entirely separate verb root: **deka** ‘for a human to stand’. Occasionally it’s necessary to use a human location verb in a situation where the literal state of the person is largely irrelevant, e.g. ‘leaving’ someone in a relationship sense; in these situations often the person’s current state is what’s used—so ‘don’t leave me’ is usually **no dekarhisili** ‘don’t leave me standing [here]’ when the speaker is standing and **no wejerhisili** ‘don’t leave me sitting [here]’ when the speaker is sitting down.

Note that these verbs are specific to humans, and are not commonly used with animals—‘for a horse to run’ is **okkopasa**, from **okko** ‘for a horse to move’ plus **-pasa** ‘hurriedly, quickly’. Using human verbs for animals implies a human-like quality to the movement—for example, one might jokingly use **su** to describe those videos of cats shuffling around on their back legs.

Digital objects

The digital world is treated as a basic semantic space in Mirja, unlike in natlangs, which usually get at digital concepts via metaphors based in physical reality. For example, while in English we must ‘send’ a text message, conjuring up the image of a physical parcel being physically conveyed from one location to another, the Mirja verb **jepa** ‘send text as a digital message’ is a simple, dedicated verb with no such metaphoric basis. In fact, Mirja instead builds some relatively basic metaphors on digital reality, rather than the other way around—the English verb ‘know’ (a fact) is usually translated using a possession construction involving the verb **tirha**, which literally means ‘for digital text data to be there’. This metaphor ABSTRACT CONCEPTS ARE DIGITAL INFORMATION is found throughout Mirja.

Digital static objects

Digital objects which are primarily stored and accessed rather than sent from place to place fall into this category. These take ‘be located’ as their basic form, and has one derived form for both ‘copy’ (the digital analogue of ‘move’) and ‘be copied’: **nega** ‘for digital audio(visual) data to be located’, **negaga** ‘for digital audio(visual) data to be copied; to copy digital audio(visual) data’. Unlike in the case of the physical ‘move’ analogue, the semantics of these ‘copy’ derivations do not imply that the copied object no longer occupies its original location—**ma negagallhago** ‘[I]’ll send it (a video) to you’ does not imply that you will cease to possess the video yourself. There is a separate derivation for that, which is effectively ‘cut and paste’: **negarilu** ‘copy digital audio(visual) data and then delete the copy in the original location’.

Digital sent objects

This category is for digital objects whose primary purpose is to be sent between people or devices rather than to be stored and accessed. There is so far exactly one verb in this category, **jepa** ‘send text as a digital message’, and I’m not sure there will ever be more—it seems to me that almost everything that’s more basically ‘sent’ than ‘stored’ is text data. Perhaps those young people who use Snapchat, though, would want an additional one for ‘send video as a digital message’! **Jepa** can be derived into **jepja** ‘for a digital text message to be located’; the equivalent to ‘move’ or ‘copy’ is simply implied by obfuscating the subject

via marking the object as a topic and pro-dropping the subject.

MLP verbs and other (semi)derivational affixes

Most MLP verbs can take other kinds of affixes that either derive yet other types of verbs or supply the kinds of information English speakers might expect to be included in the verb root. The first category involves affixes that derive verbs of obtaining, such as **-gat** “purchase” or **-raeva** ‘steal’, creating verbs such as **simagata** ‘purchase a car’ or **tirhalhaeva** ‘steal digital text information’. Most of these can be used with most kinds of MLP verbs except human verbs. This category also includes affixes relating to putting things in certain states, which can be used with human location verbs as well as a few motion verbs—e.g. **dekarhisi** ‘leave [a person] standing there’, or **kataanerhisi** ‘leave [a person] to take the train’. Some non-MLP verbs can take some of these affixes, though; **-rhisi** for example is valid with any sort of state or activity: **janarhisi** ‘leave [someone] while they’re singing’; **marolhisi** ‘leave for dead’.

The second includes Mirja’s wide range of manner affixes, which are productive enough to be somewhere on the line between derivation and inflection—allowing you to create verbs such as **xallheresii** ‘pour a liquid’, literally ‘cause a liquid to flow by falling’, or **simamiiny** ‘drive a car back to where you were / it was before’. Some non-MLP verbs can take some of these manner affixes—e.g. **ulhuvije** ‘cook easily or carelessly’—but many combinations are nonsensical or extremely odd (for example, when would one ever use **ulhusii** ‘cook by falling’?)

MLP verbs can obviously also take any of Mirja’s dizzying range of applicatives; see (3) for an example of a motion verb plus an applicative with an incorporated generic object. Applicative affixes usually have both a motion and a location interpretation; e.g. **-pike** in the above example means ‘in a trajectory off of’, but can also mean ‘below and over a bit from’ (e.g. **tona rykypike** ‘it [a book] is on the ground next to the table’).

Despite the amount of time Mirja has been in the works, it is still very much in the initial stages of development—this article represents pretty much the entirety of what I’ve done with motion verbs so far. Its set of derivational affixes in particular is badly in need of expansion! Still, I’m quite happy with what I’ve got so far—the system seems to be working quite well despite its extreme difference from everything I’ve ever gotten used to, and I think it’s accomplishing its goals well. I hope to be able to share more about Mirja in the future—especially some of the other fun things it does that are wholly unrelated to verb semantics!



11

South Aeranid Alignment

by as Avridán

Synchronic and diachronic approaches

- (1) **Yo veo guinas querizas eu los sanos co los astros, tan ziem** Southern Tevrés
vehel yo.

[ʃo 'vejo 'uɰinas ke'riðaz ewlo'sanos kolo'zɑstros | tãn 'ðjẽm be'el 'jo]

yo	ve	-o	guin	-as	queriz	-as	eu	l
1SG.DIR.EMPH	<i>know</i>	-1SG.A	NEG	-CYC.IND.PL	<i>mind</i>	-IND.PL	<i>from</i>	DEF
-os	san	-os	co	l	-os	astr	-os	tan
-TEM.DIR.PL	<i>god</i>	-DIR.PL	<i>and</i>	DEF	-TEM.DIR.PL	<i>spirit</i>	-DIR.PL	<i>but</i>
ziem	veh	-el	yo					
<i>they</i> .TEM.IND.PL	<i>know</i>	-1SG.P	1SG.DIR.EMPH					

“I do not know the minds of the gods and the spirits, but they know me.”

As John Muir once wrote, ‘[w]hen we try to pick out anything by itself, we find it hitched to everything else in the Universe.’ This quote should by no doubt resonate with conlangers, who frequently attempt to delve into one aspect or another of language, be it syntax, semantics, phonetics, *etc.*, and find themselves entwined in a web of connections to every other field of linguistics. One cannot approach morphology without an understanding of syntax, nor syntax without an understanding of semantics, and so on and so forth. In the same vein, in this article, I will attempt to explain the odd behavior of verbs in a number of my related naturalistic artlangs, however in doing so I am forced to examine other areas of the grammar, especially nominal morphology. I hope that his article may be a lesson on how the categories we like to think of as discrete—noun and verb, morphology and syntax—are actually a part of an intricately intertwined web, which cannot be disentangled.

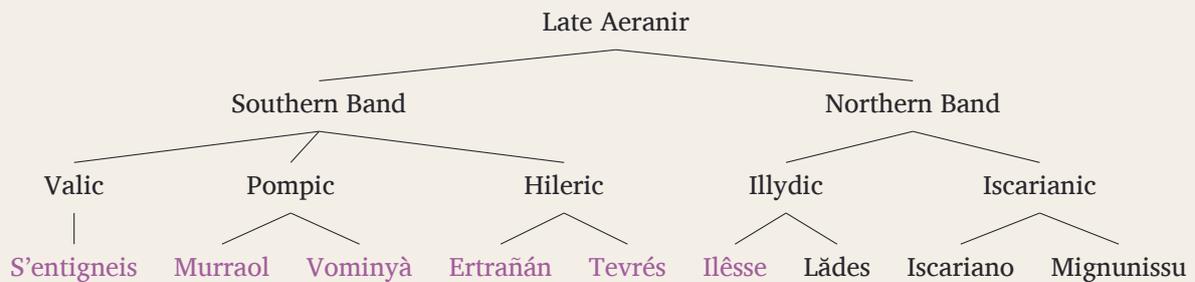


Figure 1: The Aeranid language family. Members of the SAS are highlighted in purple.

Note: the following article is written from the perspective on an ‘in-world’ linguist. Luckily, in the canon of this conworld, they have access to all of our world’s linguistic literature, and draw heavily upon it.

Introduction

The **South Aeranid Sprachbund** (SAS) is an areal language grouping which covers much of south and west Ephenia, roughly coinciding with the kingdoms of Tevrén and S’entin, and the Fásr province of Upper Kális, in the Primary Material Plane of System 12093031α (hereforth called ‘Avríd’). The majority of its members are part of the Southern Band Aeranid language family, descending from Late Aeranir, of the Iscaric branch of the Maro-Ephenian family. In the past, this has lead scholars to believe that their shared characteristics were genetic rather than areal, however the presence of a single Northern Band language, Ilêsse, which shares many key SAS features, has lead scholars to revise this and arrive at the current conclusion, that SAS is indeed an areal grouping not a purely genetic one. One of the characteristic features of SAS languages, and the focus of this paper, is a peculiar system of morphosyntactic agreement and alignment, which is unusual to Avríd, even amongst Maro-Ephenian languages, which in turn already feature a system which is unattested in our own world.

A great deal of writing has been dedicated to describing this system, referred to as **South Aeranid Alignment** (SAA), from a functional, synchronic perspective. Note that here, ‘Alignment’ refers to two discrete but related phenomena. The first is **transitive coding** (Creissels, 2018); the coding of agents and patients via case in uses of **core transitive verbs**. These are bivalent verbs which include among their arguments a typical agent (*i.e.* a sapient participant consciously and willingly controlling an activity oriented towards the other participant) and a typical patient (*i.e.* a participant undergoing a change of state or position triggered by the activity of an agent).

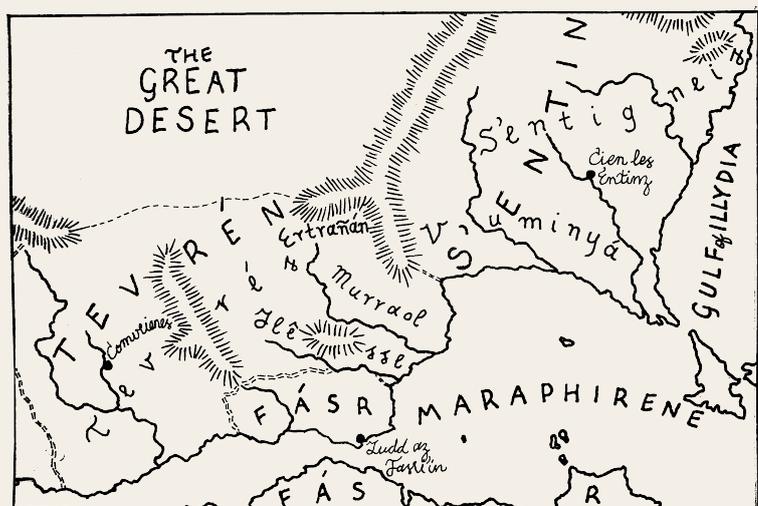


Figure 2: South Aeranid Sprachbund

They are often typified by the verb **break**. However, all languages extend transitive coding past the small set of core transitive verbs. Murraol **uir** ‘see,’ **batar** ‘hit,’ and **cànyer** ‘eat,’ for example, are

not core transitive verbs, because they do not have typical agents or patients, however they are bivalent, and assign coding to their two participants identically to core transitive verbs. Thus, they are said to be **transitive verbs**. The more agent-like argument of a transitive verb is referred to as A, whereas the more patient-like argument is referred to as P. Languages wherein A is coded the same as S, the single argument of an intransitive verb, and different marking is assigned to P, are identified as having **accusative alignment**, whereas those which do the opposite; group P and S and mark A differently, are said to have **ergative alignment**. Here, S, A, and P are referred to as **syntactic roles**.

The second phenomenon encompassed by SAA is **argument indexing** (Haspelmath, 2013). Often called agreement, **indices** are mandatory bound person forms which attach to the verb and refer to one of its core arguments; usually either the subject or object. These indices carry information related to the argument they index, often referred to as **ϕ -features**. In SAS languages, the relevant ϕ -features are **person** (first, second, or third), **number** (singular or plural), and **gender** (temporary or cyclical¹). The syntactic role of some arguments, whether A or P, is sometimes also indexed on the verb, and the conditions under which such indexing is motivated shall be one of the primary objects of exploration for this paper. Often, a full, independent noun or determiner will appear alongside its index in the sentence, in which case we may say that said argument is **coindexed**. In some languages, multiple core participants are indexed on the verb,² however SAS languages tend to only index a single argument. The selection mechanism for the indexed argument shall also be a major focus of this paper.

In all languages with SAA, there are at least three core inflectional nominal cases, which here shall be referred to as **direct**, **accusative**, and **indirect**. The direct case is used to code S, A in sentences lacking **Speech-Act-Participants** (SAPs; the first and second person; the speaker or addressee), and SAP arguments regardless of their role within the predicate. The accusative case encodes P in sentences lacking SAPs, and the indirect case marks the non-SAP argument of sentences with an SAP argument, likewise regardless of role³. This gives rise to three distinct patterns of transitive coding for $\langle A, P \rangle$. With predicates lacking an SAP, the coding frame is $\langle \text{DIR}, \text{ACC} \rangle$. When A is an SAP, the frame is $\langle \text{DIR}, \text{IND} \rangle$, and when P is an SAP, it is $\langle \text{IND}, \text{DIR} \rangle$. When both A and P are SAPs, first person arguments take precedent over second person arguments in taking the direct case⁴. Because DIR also encodes S, the first two of these coding strategies may be labelled as **accusative** ($A = S \neq P$), whereas the final one is considered **ergative** ($A \neq S = P$).

It is not uncommon for languages to display this kind of split ergativity. SAPs are considered highly animate (or salient, sympathetic, *etc.*), and animacy is a very cross-linguistically common trigger for ergative splits. What is peculiar, however, is the differential P marking between the two ‘accusative’ coding frames. But the peculiarities do not end there. Typi-

¹The terms ‘temporary’ and ‘cyclical’ come to us from Aeranid theological, philosophical, and historical tradition. Under more usual typologies, they may be classified as ‘common’ and ‘abstract,’ however in reality they are incredibly semantically hollow, and nouns of all sorts may appear in either category.

²This sort of indexing, usually referred to as polypersonal agreement, is present in some branches of ME, most notably Modern Talothic. In Golden Age Aeranir, multiple arguments could be indexed on the verb via a combination of inflectional affixes and clitic pronouns, however the latter were lost in all daughter languages.

³Each of these cases has other, non core uses as well. The direct case is very commonly used in SAS languages for adnominal modification, and various prepositions used to form adjunct phrases govern specific cases. For example, in (1), **eu los sanos** appears in the direct case to modify **querizas** in a genitive construction, not because it is a core argument

⁴At the surface level, core participant SAPs rarely ever actually marked for case, as SAS languages tend towards excessive pro-dropping (especially in Hileric Languages), however they may be retained, and coded as described above, for emphatic purposes, the exact nature of which differ between languages, but in generally include phenomena such as contrasting focus.

P. Thus, perspectivization of the event may be wholly reversed simply by altering a bit of verbal morphology. In this respect, SAA bears similarity to direct/inverse systems, where marking (often order) is fixed due to some semantic property, with role assigned by verbal morphology, as well as Philippine-type voice systems, which privilege a certain participant regardless of role. Finally, note that in (2c), although A is coded by DIR, P is indexed, whereas indexing aligns with DIR in all other examples. Furthermore, there is no special marking on the verb to indicate the role of the indexed argument, and the verbs in (2c) and (3) are marked identically.⁵

It is the goal of this article to examine this system, to offer both a descriptive, synchronic explanation regarding its mechanics, to analyse its underlying motivating factors, and to explore how such a system came to be in the first place through a diachronic lens. This paper shall also touch on the consequences of the formation of this system outside of the prototypical transitive sentence, including how it has shaped intransitive and ditransitive constructions. We will draw predominantly from three languages: the Capitoline dialect of S'entigneis (henceforth simply 'S'entigneis'), the southern dialect of Tevrés (likewise 'Tevrés'), and Ilêsse, as these are the among the most well documented languages displaying SAA, and are otherwise structurally diverse enough to highlight their shared features.

A synchronic view

Before delving into the synchronic workings of SAA, it is useful to establish a few preliminaries. At the heart of SAA are two fundamental hierarchies; the **animacy hierarchy** and the **obliqueness hierarchy**. The animacy hierarchy is based off the semantic properties of an argument, *i.e.* its meaning, with more animate arguments appearing higher in the hierarchy, and less animate arguments appearing lower. At the top of the animacy hierarchy are first and second person pronouns, *i.e.* SAPs. This is represented in (4), adapted from Kiparsky (2008:9). The obliqueness hierarchy, however, relates to syntax, ranking arguments according to their **grammatical function** *vis à vis* the verb. More oblique arguments, those which are more similar to the eject (also called the indirect object) rank higher in the hierarchy, whereas those less so, which are more similar to the subject, rank lower. Low-ranking functions may also be called **nuclear**, as opposed to oblique. These are laid out in (5).

(4) The animacy hierarchy



(5) The obliqueness hierarchy



'Grammatical function' here is used to refer to a grouping of syntactic roles. In addition to S, A, and P, here we include the syntactic roles associated with ditransitive, or so called

⁵Intransitive verbs always index S, naturally, although the way in which SAA languages index SAP S is a matter of some variation. The most common pattern, found in Tevrés, is to simply use the A-aligned endings, however in Murraol, a system of split-intransitive alignment is found, wherein more agent-like S is indexed with A-aligned endings, and more patient-like S is indexed by P-aligned endings. In S'entigneis, however, unique SAP endings are present which appear only on intransitive verbs; compare Tev. **migo** / Mur. **meguel** / Sen. **miut** 'I die.'

‘three-place’ predicates: D⁶ (the most donor or agent-like argument), T (the most theme-like argument), and R (the most recipient or goal-like argument). The **subject** comprises of S, A, and D, whereas the **object** includes of P and T, and the **eject**⁷ lone R. An even more oblique grammatical function, the **extended eject**, is only present when the valency of a ditransitive verb is increased by a **valency-changing-operation** (VCO), such as a causative or applicative, however the syntactic and thematic role of the extended eject is somewhat murky, as the latter varies greatly depending on the exact construction used, and the former is difficult to propose based on the lack of a prototypical class of ‘tritransitive’ verbs. Thus the first of these three grammatical functions are given in (6).

(6) SAA grammatical functions

Subject	S A D	Object	P T	Eject	R
---------	-------	--------	-----	-------	---

The system described in the previous section may seem a touch arbitrary, but in fact it follows quite naturally from the hierarchies described above, along with a few other simple rules. The way these rules contribute to produce the coding and indexing patterns which we observe may be best described as a coherent whole using **Optimality Theory** (OT). OT is a way of mapping inputs and outputs. It is often used in phonology to describe the phonetic rules which lead from the underlying form of a word to the realised surface form, however it has also been applied to other linguistic fields, including syntax (Legendre, 2001; Legendre & Sorace, 2003). For any given input, the grammar generates an infinite number of potential outputs, or **candidates**, which are evaluated based on a number of hierarchically ranked **markedness constraints**. Often in OT, all candidates will violate some restraints, however, the candidate which violates the lowest level of constraints will be selected by the grammar as the **output**, or observed form.

In the case of SAA, there are three main inputs which are of concern to this paper: $\langle A^{SAP}, P \rangle$, $\langle A, P^{SAP} \rangle$, and $\langle A, P \rangle$. These are the three inputs behind the A-oriented, P-oriented, and split-systems respectively. We may also call these A-SAP, P-SAP, and NOSAP. Because there are a finite number of cases which may encode an argument (3), a limited amount of arguments (2), and the verb can only index one argument, considering all possible combinations of coding and indexing, there are eighteen possible candidates. Many of these, however, may be immediately disqualified by the simplest, highest ranking constraints. For example, we may postulate a constraint that requires one and only one argument to be coded DIR, which may be called ONEDIR. As DIR is the least marked case (or the zero case, as framed in Creissels, 2018), this is a fairly unremarkable rule, and all outputs have precisely one direct argument. Furthermore, we may stipulate a constraint NOACCSUB, which eliminates any candidate which codes the subject with ACC, as it is quite common, cross-linguistically, for there to be a marked case which only marks P (often called ‘accusative’), as well as another, perhaps even more marked case which may mark either A or P, depending on the circumstances (often called ‘dative’ or ‘oblique,’ here called ‘indirect’). Finally, the constraint NOINDEX disallows indexing of arguments coded IND, in keeping with Bobaljik’s observation that some m-cases are not accessible to indexation. These constraints alone narrow down the field of candidates significantly, from eighteen to only four, which are listed in (7).

⁶In much of the literature on ditransitives, A is used for both transitive and ditransitive predicates, as both are thought to involve agent-like arguments. Some authors, in order to differentiate the two and three-place predicates, use A₁ for transitives and A₂ for ditransitives (Haspelmath, 2011:553), however here, for the sake of clarity, we use D for the latter.

⁷In other literature, this often corresponds to the indirect object, secondary object, or extended core argument.

or if the new ditransitive constraints contradict the transitive ones, this may be grounds for reanalysis of either or both systems.

As noted earlier, the coding frame for ditransitive verbs may be represented as $\langle D, T, R \rangle$. Cross-linguistically speaking, D is generally coded identically to transitive A, *i.e.* in an accusative system, it takes the zero-case in both transitive and ditransitive predicates, whereas in ergative systems it takes the more marked case (Haspelmath, 2011). However, there is a three way split between coding methods for T and R, which somewhat mirrors the three way split in A and P coding. In **indirective alignment**, T is coded identically to transitive P, with R marked differently, mirroring accusative alignment ($T = P \neq R :: A = S \neq P$), while in **secundative alignment**, R is coded the same as P, and T is marked differently, mirroring ergative alignment ($T \neq P = R :: A \neq S = P$). Finally, in **neutral alignment**, T and R are both coded identically to P, just as A and P are coded identically to S in transitive neutral alignment ($T = P = R :: A = S = P$). Languages with SAA display both neutral and secundative alignment. Secundative alignment is used when D or R is an SAP (D-SAP and R-SAP), whereas neutral alignment is used for NOSAP. As with transitive verbs, SAP arguments are always indexed on the verb. As for NOSAP, despite showing neutral marking, there is a degree of secundativity, as R, like P, is the argument selected for verbal indexation.

- (8) a. **Yo zoy peño las harinas.** Tevrés
 [ʃo ʔoj ʔepeno lazaʔrinas]
 yo z -oy peñ -o l -as harin -as
 1SG.DIR.EMPH give - 1SG.A bread -ACC.SG DEF -TEM.IND.PL priest -IND.PL
 “I’m giving bread to the priests.” < DIR, ACC, IND >
- b. **Ariñe-e êu çao penu.** Ilêsse
 [eʔriɲej ʔew ʔtsəɔ ʔpinʷ]
 ariñ -e =e êu ç -ao pen -u
 priest -IND.PL =DEF.TEM.IND.PL 1SG.DIR give - 1SG.P bread -ACC.SG
 “The priests are giving me bread.” < IND, ACC, DIR >
- c. **Les harins cie pan la cele.** S’entigneis
 [lèzàkè zĩ pã làzél]
 l -es harin -s ci -e pan -Ø l
 DEF -TEM.DIR.SG priest -DIR.SG give -CYC3SG bread -ACC.SG DEF
 -a cel -e
 -CYC.ACC.SG cat:CYC -ACC.SG
 “The priests are giving the cat bread.” < DIR, ACC, ACC >

Because D-SAP encodes D identically to A (using DIR) in the A-oriented system, and the same indices are used, sentences like (8a) are considered to fall under the extended A-oriented system, and likewise R-SAP, as given in (8b), falls under the P-oriented system, as P and R are coded the same (DIR), and P-indexing endings are used. Because here, NOSAP (8c) shows neutral coding but secundative indexing (that is, the verb indexes the least marked argument under secundative alignment—the ‘primitive argument’ R (Haspelmath, 2011)—not that it indexes the secundative argument itself), it is also considered to be a part of the split-system. Note that the two clauses with SAPs both mark the secundative argument, T, with the accusative. In the split-system, the only verbal indexing signals which accusative argument is T and which is R. Of course, in the A-aligned and P-oriented systems, the roles of DIR and IND are likewise only signalled on the the verb.

We may now begin to evaluate whether or not the constraints applied to transitive verbs are also applicable to ditransitive ones. There are a great deal more initial candidates for three-place verbs than for two-place ones, given three arguments, coded with three possible cases, with one of three indexed by the verb, yielding eighty-one possibilities. However, using the first four constraints set forth in this paper, LEASTONEDIR, JUSTONEDIR, NOACCSUB, and NOINDEX, eighty-one may be narrowed down to merely sixteen. In addition, because there are no observed outputs with multiple IND coded arguments, we may also stipulate a high-level constraint ONEIND, similar to ONEDIR in content and rank, which forbids coding frames with multiple IND arguments. However, unlike ONEDIR, it does not mandate an indirect argument be present; rather it sets a maximum at one. There are pragmatic reasons for this constraint as well; as IND cannot be indexed by the verb, there would be no means of distinguishing multiple IND coded arguments. This subtracts a further five candidates, bringing the pool to a more manageable eleven. To these eleven, we may apply the four other constraints applied to transitive verbs, and observe if they produce the correct outputs.

D-SAP	SAPDEX	SAPDIR	PRIOBL	NODUB
< DIR, ACC, ACC >			*!	*
→ < DIR, ACC, IND >				*
< DIR, IND, ACC >			*!	*
< DIR, ACC, ACC >	*!		*	
< DIR, ACC, IND >	*!			
< IND, DIR, ACC >	*!	*	*	*
< IND, ACC, DIR >	*!	*		
< DIR, ACC, ACC >	*!			
< DIR, IND, ACC >	*!			
< IND, DIR, ACC >	*!	*		
< IND, ACC, DIR >	*!	*		*

Table 4: D-SAP input-output: A-oriented system

R-SAP	SAPDEX	SAPDIR	PRIOBL	NODUB
< DIR, ACC, ACC >	*!	*	*	*
< DIR, ACC, IND >	*!	*		*
< DIR, IND, ACC >	*!	*	*	*
< DIR, ACC, ACC >	*!	*	*	
< DIR, ACC, IND >	*!	*		
< IND, DIR, ACC >	*!	*	*	*
< IND, ACC, DIR >	*!			
< DIR, ACC, ACC >		*!		
< DIR, IND, ACC >		*!		
< IND, DIR, ACC >		*!		
→ < IND, ACC, DIR >				*

Table 5: R-SAP input-output: P-oriented system

As we can see in Tables 4 and 5, these rules are able to accurately predict the correct coding and indexing frames for D-SAP and R-SAP, but not for NOSAP (Table 6), which yields five tied candidates. Because the correct output, < DIR, ACC, ACC > is among these candidates, we may infer that the constraints proposed so far are not fallacious, but rather, insufficient. Additional constraints are necessary to generate the correct output. Looking at all five candidates, we may observe that the common thread between all non-outputs is privileged marking of T, be it through indexing or coding. Thus, we may be tempted to postulate a simple constraint which disallows privileged marking of T. Whilst this may

NOSAP	SAPDEX	SAPDIR	PRIOBL	NODUB
< DIR , ACC, ACC >			*!	*
< DIR , ACC, IND >				!*
< DIR , IND, ACC >			*!	*
< DIR, ACC , ACC >			*!	
?? < DIR, ACC , IND >				
< IND, DIR , ACC >			*!	*
?? < IND, ACC , DIR >				
?? < DIR, ACC, ACC >				
?? < DIR, IND, ACC >				
?? < IND, DIR, ACC >				
< IND, ACC, DIR >				!*

Table 6: NOSAP input-output: split-system (inconclusive)

appear an elegant solution, and does indeed generate the correct output, it may also feel a tad arbitrary. In opposition to this, we postulate a constraint that acts as a sort of balance to PRIOBL, NOPRIMID, which forbids arguments of middling obliqueness, that is, those which are neither most or least oblique, from taking any privileged marking. This achieves the same end as a restriction on privileged T, however it has the benefit of universality⁸. Table 7 is able to fully predict the output found in examples like (8c).

NO-SAP	NOPRIMID	PRIOBL	NODUB
< DIR, ACC , IND >	*!		
< IND, ACC , DIR >	*!		
→ < DIR, ACC, ACC >			
< DIR, IND, ACC >	*!		
< IND, DIR, ACC >	*!		

Table 7: NOSAP input-output: split-system (conclusive)

T-SAP, infinitives, and clefting

At this point, the attentive reader may have noticed a gap in our analysis. Whilst coding and indexing for <D^{SAP}, T, R> and <D, T, R^{SAP}>, also called D-SAP and R-SAP, has been examined, there has been no mention of the logical third member to this group, <D, T^{SAP}, R>, or T-SAP. That omission, until this point, has been deliberate, as it provides yet another wrinkle in the system of SAA. T-SAP presents an immediate challenge to the system of transitive coding. According to the constraints detailed thus far, the ideal coding and indexing frame for T-SAP should be <IND, **DIR**, ACC>, however this is immediately problematic; violating NOPRIMID and PRIOBL. Whilst constraint violation under OT is acceptable, the fact that (to get slightly ahead of ourselves) there are no outputs which violated these constraints, suggests that, although thus-far they have been presented as fairly low ranking rules, they may in fact be much higher ranking, above the SAP restrictions, around the same level as PRINUC. Furthermore, <IND, **DIR**, ACC> is pragmatically problematic. Although we have presented <D, T, R> in a consistent linear order, ordering in SAA languages is often pragmatically and/or semantically motivated, and thus any order is acceptable, depending on the context. Because there is no specific T-indexing verbal morphology, it would thus be

⁸This rule may apply to all predicate types, regardless of transitivity. It accurately accounts for coding and indexing with quadransitive predicates, without the need for additional constraints. Although, for the sake of brevity, this paper does not explicitly test all three-hundred-and-twenty-four possible quadransitive candidates, the enthusiastic reader may take their own time to lay out the OT tables, and observe that they agree with the attested outputs.

impossible to differentiate <IND, **DIR**, ACC>, <IND, ACC, **DIR**>, and <**DIR**, ACC, IND>. However, before making a reassessment, it may be wise to examine the actual output of coding and indexing for T-SAP, as well as another, similar construction.

- (9) a. **Poesina vadiólam yos a lo cuerço an avros.** Tevrés
 [pøe'zina va'ðjolâm 'joz alo'kwerθo a'navros]
 poesin -a vad -iolam yos a=l -o cuerç -o
 cook -IND.SG send -1PL.P 1PL.DIR to= DEF -TEM.ACC.SG market -ACC.SG
 a= avr -OS
 to= fish -DIR.PL
 “The cook sent us to the fish market.” <???
- b. **Tluyr vades harenan muñer.** Tevrés
 [l'ɕujr 'vaðeʒ a'renãm mu'ner]
 tluyr-Ø vad-es haren-an muñer-Ø
 younger_sibling -DIR.SG send-TEM3SG letter-ACC.PL mother:TEM-ACC.PL
 “(Our) younger sibling is sending letters to mother.” <DIR, ACC, ACC>

(9a) demonstrates prototypical T-SAP. The Tevrés verb **vadir** ‘to send, to make go’ is ditransitive, the subject being the sender, the object the person or thing sent, and the eject the destination or goal of the sending, as we can see in (9b). At first glance, the coding and indexing frame for (9a) appears to be <IND, **DIR**, a ACC>, with R, *i.e.* the eject, coded with the preposition **a**, and the accusative case. This analysis is tempting for a number of reasons. If we take preposition marking to qualify as a type of privileged marking, then <IND, **DIR**, a ACC> passes SAP constraints as well as PRINUC and PRIOBL, violating only NOPRIMID and NODUB. However, such a high ranking violation is still somewhat undesirable. Furthermore, the possibility of preposition-coded arguments greatly expands the field of possible candidates, requiring additional constraints to limit them only to T-SAP formations.

- (10) a. **J’ampai ve Tersine.** S’entigneis
 [zãpê vtèsín]
 j’= ampai -Ø v -e Tersin -e
 1SG.DIR= know -1SG.A PROP -TEM.IND.SG NAME -IND.SG
 “I know Tersin.” <DIR, IND>
- b. **A tu ampaie vi Tersin l’amaiz traver.**
 [átsqãpé vitésê làmè tsvàvéɕ]
 a= t -u ampai -e [CP v -i Tersin -Ø l’=
 to= 1SG -IND know -CYC3SG PROP -TEM.DIR.SG NAME -DIR.SG DEF=
 amaiz-Ø trav -er]
 market-ACC.SG go -INF
 “I know [that Tersin is going to the market].” <???

Putting a lampshade on that for now, we may examine the difference in frames between (10a) and (10b). The former shows an instance of unremarkable, canonical transitive coding, under the A-aligned system. The latter, however, presents further issues. First of all, a complement phrase (CP), formed using the infinitive, fulfils the role of P, *i.e.* the object, rather than a determiner phrase (DP) coded IND. On top of that, A is coded IND, additionally

marked by the preposition **a**, which is especially odd, considering that SAPs are never coded IND elsewhere. Finally, verbal indexing is somewhat ambiguous. There is not agreement with the SAP, which is another major oddity. The verb appears to index a third person singular cyclical argument, however no such arguments are present (**Tersin** and **amaiz** are both temporary nouns). That last conundrum is the most easily solved; the main verb in fact agrees with the infinitive, **traver**, or rather, the CP created using the infinitive, which behaves like a third person singular cyclical argument. The phenomenon of mandatory verbal infinitive indexation is well observed in Aeranid languages, and is known as the **law of infinite gravity**. This gives us a coding frame that superficially appears as < **a** IND, INF >.

- (11) a. ?**Ti joñcha empaca.** Tevrés
 [ʔiʔiʔjoñtʃa ẽmʔpaka]
 t -i joñch -a empac -a
 1SG -DIR leg:CYC -DIR.SG hurt -CYC3SG
Intended: “My leg hurts.”
- b. **A tu la joñcha empaca.**
 [aʔtu laʔjoñtʃa ẽmʔpaka]
 a=t -u l -a joñch -a empac -a
 to= 1SG -IND DEF -CYC.DIR.SG leg:CYC -DIR.SG hurt -CYC3SG
 “My leg hurts.”
lit. “To me the leg hurts.”
- c. **La joñcha empaca n te.**
 [laʔjoñtʃa ẽmʔpakã nʔte]
 l -a joñch -a empac -a a=t -e
 DEF -CYC.DIR.SG leg:CYC -DIR.SG hurt -CYC3SG to= 1SG -ACC
 “It’s me whose leg hurts.”
lit. “The leg hurts to me.”

Finally, let us turn to (11), which presents different types of pragmatically motivated **possessor-raising**. In many SAS languages, highly salient possessors like personal pronouns, especially in intransitive clauses, are very commonly promoted to the topic of the sentence. (11a) is not wrong per se, and a possessor may not be promoted if another topic or controller is present, however most speakers naturally produce utterances like (11b). The topic is marked by the preposition **a** and the indirect case, and appears in the sentence-initial position. There is also a focus construction which may be used similarly to promote possessors, as detailed in (11c). In such situations, the focus is also marked by the preposition **a**, however it is coded with the accusative case, and moved to sentence-final position.

What is the connection then, between (9a), (10), and (11)? A number of outwardly common structures may be observed; (9a) and (11c) share a phrase coded ACC and preceded by **a**, whilst (10b) and (11c) share a sentence-initial phrase coded IND, also preceded by **a**. However, these similar structures perform quite different functions. In (9a) and (10b), they mark unambiguous arguments of the verb, whereas in (11) they mark promoted possessors. Topic and focus are generally thought appear at a higher level in the sentence structure than ordinary arguments, as the specifiers of C⁹ and I’ respectively (Aissen, 1992:47), however in (9a) and (10b), there are no signs of raising out of the verb phrase (VP), i.e. there is no sign that they are topicalised or focalised, and additional true topics/foci may be added,

⁹This is the case for what Aissen terms ‘internal topics,’ although ‘external topics’ behave slightly differently. However, they too appear higher in the syntactic structure than arguments.

where this is impossible for (11); e.g. [_{TOP} a l'amaize] a tu ampaie vi Tersin traver “[as for the market] I know Tersin is going (there),” **yos vadiólam a lo cuerço an avros** [_{FOC} la poesina]¹⁰ “[It’s the cook] who sent us to the fish market,” but not * [_{TOP} a la joñcha] [_{TOP} a tu] **empaca** nor ***empaca** [_{FOC} a te] [_{FOC} a la joñcha]. Therefore, these cannot be functionally identical structures, even if they are identical on a surface level.

However, there is evidence of raising in (9a), but not of the preposition phrase (PP) **an avros**, representing R. Rather, it is **yos**, T, which is raised. This demonstrates what has been called a **dative shift**; the promotion of T and the backgrounding of R, usually via a PP, e.g. “John sent Mary a letter” → “John sent a letter to Mary” (Larson, 1988). This is essentially a change in alignment; in the example of John and Mary, the first sentence shows neutral alignment (T = P = R), whereas the second shows indirective; (T = P ≠ R), with the P-aligned argument is an unmarked DP (sans preposition) appearing directly after the verb. In the SAA examples, we see that (8b) shows secundative alignment (T ≠ P = R), whilst (9a) shows indirective alignment, with P-aligned arguments coded **DIR** and indexed on the verb. This may also be likened to a change in voice; a sort of passive, which demotes the P-aligned argument (R) to a non-core function, and promotes the uniquely-aligned argument (T) to P-aligned status. The only evidence of this change in voice is the coding of arguments; there is no overt morphological signalling on the verb, nor any sort of periphrasis. In the same vein, (10b) may be viewed as an unmarked voice shift, with A ejected from the core coding frame, and P (here the CP/infinite) being promoted to the S-aligned function.

But how does this square with our OT model? In order to answer that question, it is necessary that we first examine a core principle of OT, which until this point has been irrelevant. In OT, broadly speaking, there are two types of constraints. Until this point, we have only examined **markedness constraints** which demand or prohibit certain features. In order to understand (9a) and (10b), we must turn our attention to **faithfulness constraints**, which prioritise resemblance between input and output. Up until now, there has been no clear metric by which different candidates may be judged against one another in terms of faithfulness; <IND, ACC, **DIR**> is no more or less ‘faithful’ to <D, T, R> than <**DIR**, ACC, ACC>, or any other configuration. To understand what a faithfulness violation might look like, we must switch our focus from the arguments which lie between the angle brackets, the coding and indexing frame, to those brackets themselves.

As mentioned above, changes in voice are often accompanied by the demotion of an argument to a function which bears some similarities to an argument, but some to an adjunct. For example, in some languages, a dropped core argument is always interpreted as having an anaphoric reading; that is, a structure analogous to “I eat” is always interpreted as “I eat (it),” whereas in others it is indeterminate; “I eat (something)” (SAA languages tend to belong to the former group). However, when the passive is used, languages with anaphoric interpretation may allow a dropped demoted argument to yield an indeterminate reading; “it was eaten (by someone)” instead of “it was eaten (by them).” The demoted phrase’s role and function are still defined by the verb, like an argument, but it is structurally unnecessary and may be dropped, like an adjunct. For the sake of this paper, we shall categorise non-demoted arguments as **core arguments**, and demoted arguments, which are still semantically and structurally a part of the predicate, but at a less privileged level, **non-core arguments**. Thus, in (9a) and (10b), R and A respectively are non-core arguments. Although they cannot be dropped giving an indeterminate reading, they bear other adjunct-like qualities, such as being PPs, and being ineligible for verbal indexing. To reflect this, we may represent the

¹⁰Although a different focalising strategy—SAS languages tend to have many—is used here than in (11c), the principle remains the same; a sentence may only have a single focus, and thus both **an avros** and **la poesina** cannot both be foci.

coding and indexing frames of these examples not as $\langle \text{IND}, \text{DIR}, \text{a ACC} \rangle$ and $\langle \text{a IND}, \text{INF} \rangle$, but as $|\langle \text{IND}, \text{DIR} \rangle, \text{a ACC}|$ and $|\text{a IND}, \langle \text{INF} \rangle|$, with angle brackets representing the **core-argument coding and indexing frame**, from which non-core arguments are ejected. In these, we may postulate a faithfulness constraint, on the basis that $|\langle \text{D}, \text{T} \rangle, \text{R}|$ and $|\text{A}, \langle \text{P} \rangle|$ represent a transformation from $\langle \text{D}, \text{T}, \text{R} \rangle$ and $\langle \text{A}, \text{P} \rangle$, which we may call FAITH. This eliminates candidates with clefting from the previously discussed frames (A-SAP, P-SAP, NOSAP, R-SAP, etc.), as demonstrated in table 8. Taking this and the law of infinite gravity (INFGRAV) into account, we may finally accurately predict the coding and indexing outputs of ditransitive clauses, and clauses with infinitives, as demonstrated in tables 9 and 10:

	T-SAP	FAITH	NODUB
→	$\langle \text{DIR}, \text{IND} \rangle$		*
	$\langle \text{DIR} \rangle \text{ a ACC}$!*	*

Table 8: A-SAP input-output: no cleft

	T-SAP	NOPRIMID	FAITH
	$\langle \text{IND}, \text{DIR}, \text{ACC} \rangle$!*	
→	$\langle \text{IND}, \text{DIR} \rangle \text{ a ACC}$		*

Table 9: T-SAP input-output: P-oriented system with cleft

A-SAP P-INF	INFGRAV	SAPDEX	SAPDIR	FAITH
$\langle \text{DIR}, \text{INF} \rangle$!*			
$\langle \text{DIR}, \text{INF} \rangle$!*		
$\langle \text{IND}, \text{INF} \rangle$!*	*	
→ $\text{a IND} \langle \text{INF} \rangle$				*

Table 10: A-SAP P-INF input-output: intransitive with cleft

Note that markedness constraints only apply to arguments within the core frame. That means that arguments outside of the angle brackets are not evaluated in regards to SAP or obliqueness constraints; although R in table 9 is semantically the most oblique argument, because it is removed from the core frame, T is treated as the semantically most oblique argument. Likewise, by removing the SAP from the core frame in table 10, it no longer violates SAPDEX, nor SAPDIR. Because successful candidates (outputs) for the other formations violate either no constraints, or only NODUB, FAITH may be constituted at a relatively low level without affecting what was covered before. Contrary to this, INFGRAV must be a high level constraint, as it overrides the SAP constraints. Alternatively, INFGRAV may be reanalysed as an extension of PRIOBL, as infinitives always act as the most oblique argument of a verb, and, being unable to take case marking, can only be privileged by indexing. If this is the case, than PRIOBL (and likely all constraints related to the obliqueness hierarchy) must be raised above the SAP constraints. This does not alter the output for any of the formations examined thus far, and provides a slightly more tidy, elegant explanation to the oddities of SAA.

As a final note, the very astute reader may have noticed that, if A is not an SAP in infinitive sentences, then there are no SAP constraint violations. Thus, there is no need for clefting, and the frame $\langle \text{DIR}, \text{INF} \rangle$ may be used, as demonstrated in (12):

(12) **Uy poesín llaga tin tiedre.**

Tevrés

[ujpɔe'zĩŋ 'ʌaʊa 'tĩŋ 'tjeðre]

uy poesín-Ø llag-a [_{CP} tin-Ø tied-re]
DEF.TEM.DIR.SG cook-DIR.SG want-CYC3SG tea-ACC.SG drink-INF

“The cook wants to drink tea.”

A diachronic view

Thus, we may understand the underlying semantic and syntactic motivations behind South Aeranid Alignment. It is essentially the interaction between co-occurring hierarchies. The odd coding and indexing frame found in the split-system, accusative alignment but ergative agreement, which is present in no languages in our own planar system, is a consequence of the bipolar nature of the obliqueness hierarchy, which seeks to assign privileged status to both ends of the spectrum. And yet, a question remains; even if we may understand the structural and functional motivations for SAA, how did such a strange system come into being in the first place? Whilst SAA is not simply an ‘epiphenomenon of change’ (Kiparsky, 2008) it does have a concrete diachronic foundation, which converges around these grammatical categories. In this section, we shall seek to elucidate that process, and explain the historical evolution of SAA. To this end, we must begin with the ancestor of all SAA languages; **Aeranir**.

Aeranir was the language of the first Aerans, who settled in the city of Telhramir in upper Iscaria c. 2600 BCA, and subsequently of the Aeranid Empire, which spanned across nearly all of Ephenia, west Eubora, and north Seroea. It served as the official language of the Empire for over a thousand years, until the Collapse in 1266 BCA, and continued to be used in the petty Aeranid kingdoms which arose in its wake, where it splintered into the many Aeranid languages seen today. Having been in use for such a long span of time, Aeranir naturally went through multiple stages of development, shifting and changing as time went on. To this day, a literary variety of the language, often called Clerical Aeranir, is still used for religious, scientific, and formal purposes. To understand the evolution of SAA, we may examine two of these stages; **Golden Age Aeranir** (GAA), the standard prestige language of the height of the Aeranid Empire (c. 2200-1800 BCA), and **Late Aeranir** (LA), the vernacular lingua franca of the Empire towards the end of its reign (c. 1400-1000 BCA).

Although one may assume that the split-system, the most typologically unusual feature of SAA, is a historical innovation, and that the more normative A-oriented or P-oriented systems represent the original coding and indexing system, the truth is actually the opposite. The split-system is the more ancient of the three, being present not only in Aeranir, but also its ancestor, Proto-Maró-Ephenian, and all other Maró-Ephenian languages, such as Talothic, whilst the other two represent innovations. In GAA, the subject is coded using the nominative case, the object the accusative case, and the eject the dative case. The verb always indexes the most oblique argument, regardless of where it falls within any animacy hierarchy. As such, there is a single series of personal endings, which do not convey any information about the indexed arguments syntactic role. This is demonstrated in (13).

(13) a. **Juva Calimius salvan.**

Golden Age Aeranir

[ˈjuva kaˈlɪmjʊs ˈsʌlvã]

juv -a Calimi -us salv -an
write-CYC3SG NAME -NOM.SG book:CYC-ACC.SG

“Calimius is writing a book.”

b. **Zavunt jūca altan zillāni.**

[ʔsəvũnt̪ ʔju:kə ʔaʔt̪āŋ tsilʔla:nɪ]

za -v -unt jūc -a alt -an zill -āni
give -PFV -3PL *scribe* -NOM.SG *water* -ACC.SG *cat*:CYC -DAT.PL

“The scribe gave the cats water.”

c. **Serua callitantus tē Boezymiō.**

[ʔsɛrwa kallɪʔt̪ānt̪us ʔt̪e: bøʔdzɪmjøʔ]

ser -u -a callitant -us t -ē **Boezymi** -ō
order -PFV -CYC3SG *commander* -NOM.SG 1SG -ACC PLACE:CYC -DAT.SG

“The commander ordered me to (go to) Boezymia.”

And thus the question becomes; where did the A-oriented and P-oriented systems come from? The first clue becomes apparent upon an examination of morphology. Aeranir had a robust system of morphological voice/valency-changing-operations, including a **passive voice**, used to demote/delete the most nuclear argument of a verb (*i.e.* the subject), and a **middle voice**, used to demote/delete the most oblique argument (the object or eject, depending on the transitivity of the verb). In contrast to this, languages with SAA lack inflectional voice, and instead demote/delete arguments using paraphrases. Compare the following:

(14) a. **Tīn taetuēlāre (jūcēs).**

Golden Age Aeranir

[ʔti:ĩŋ ʔt̪ɛʔt̪owɛʔʔa:rɛ ʔju:kɛʔs]

tīn -Ø taet -u -ēlāre jūc -ēs
tea -NOM.SG *drink* -PFV -PSV.3SG *scribe* -ABL.PL

b. **Çiñe-l teuçi che (o juque-e).**

Ilêsse

[ʔtsɪnɪl ʔt̪ɛwtsʔ ʔʔi ʔʔjuke]

çiñ -e =l teuç -i che o juqu -e
tea -NOM.SG =DEF.TEM.DIR.SG *drink*.PFV -3SG REFL *by* *scribe* -IND.PL

=e.

=DEF.CYC.IND.PL

c. **Ul ttine (ille g-giughe t)tiètàvelai.**

Quarenzi Iscariano

[ult̪ʔti:ne ʔjl:ed:ʔʔu:geʔ ʔt̪ɛʔʔa:ve,laj]

ul tin -e il = l-e^x giuch -e^x tiet
 DEF.TEM.NOM.SG *tea* -NOM.SG *by* =DEF -CYC.ABL.PL *scribe* -ABL.PL *drink*

-^xàv -elai

-PFV -PSV.TEM.3SG

“The tea was drunk (by the scribes).”

As we can see, voice is marked directly on the verb in Aeranir, however in Ilêsse, it is marked by the addition of the reflexive pronoun. Other SAA languages use different methods, for instance auxiliary verbs, however the point stands; SAA languages do not have morphological voice. Contrast this with Iscariano, a Northern Band Aeranid language closely related to Ilêsse, which preserves the Aeranir passive voice. Furthermore, in all examples, the demoted A may be reintroduced as a non-core argument, either through an oblique case (the ablative in Aeranir), or as a PP (as in Ilêsse). This argument may be dropped without generating an anaphoric reading; instead it is indeterminate, as mentioned earlier. In a kind of symmetry with the passive, Aeranir also had a middle voice (which in these situations behaved more like a traditional antipassive voice), which could be used to delete the most

oblique argument (the object or eject). But unlike the passive, the deleted argument of a verb in the middle voice could not normally be reintroduced, especially in Classical Aeranir. One common construction emerged in GAA which ‘reintroduced’ this non-core argument, however it was somewhat semantically limited. It could only with verbs of sensation, perception, or cognition, and implied that that sensation or perception was non-volitional or non-intentional; similar to the difference between ‘to look at’ and ‘to see,’ as exemplified in (15). The ablative is also used here to reintroduce the non-core argument.

- (15) a. **Ȳrēvat’ jūlian.** Golden Age Aeranir
 [yˈrɛ:vɑt̚ ˈju:lɪjãː]
 ȳr -ēv -a =te **jūli** -an
listen -PFV -CYC3SG = 1SG *song*:CYC -ACC.SG
 “I listened to a song”
- b. **Ȳrēvō (īcuc) jūliā**
 [yˈrɛ:vɔː ˈi:kɔk ˈju:lɪjɑː]
 ȳr -ēv -ō **īcuc** jūli -ā
listen -PFV -MID.1SG 1SG.NOM *song* -ABL.SG
 “I heard a song”

Note that, because **jūliā** is no longer a core argument in (15b), it is no longer able to licence indexation from the verb. Instead, the subject, in this case **īcuc**, is indexed, as though it were the subject of an intransitive clause, and as such, in the case of personal pronouns, it is often dropped. If the reader is looking closely, they may begin to notice the emergence of the SAA systems. One m-case, the nominative, is used to code the single core argument, which is also indexed by the verb. Another m-case, the ablative, is used to mark the single non-core argument, and is never indexed by the verb. This mirrors our direct and indirect cases nicely. On top of that, one may observe morphological similarities between older voice markers and the A/P-oriented systems. The suffix **-l-** found in (14a) and (14c) mirrors the name phoneme found in the P-oriented system of many SAA languages; cf. Aeranir **taetēlō** [t̚ɛːˈt̚ɛ:lɔː] ‘I am drunk’ (literally, not inebriated) with Tevrés/Murraol/Vominyà **tedel** [t̚ɛːˈd̚ɛl/t̚ɛːˈd̚ɛl/t̚ɛːˈd̚ɛl], Ertrañán **tedelo** [t̚ɛːˈd̚ɛlɔ], S’entigneis **toyil** [t̚ɛːwɛjɪl], Ilêsse **tetèu** [t̚ɛːˈt̚ɛw] (with regular /-l-/ → /-Ø-/) ‘(they) drink me;’ Lădes **teter** [t̚ɛːˈt̚ɛr] (with regular /-l-/ → /-r-/), Iscariano **tettelo** [t̚ɛːˈt̚ɛ:lɔ] ‘I am drunk.’ Observe also the similarities between the middle first person singular ending and **-ō** and the A-oriented first person singular marker in SAA languages; Late Aeranir **ȳrio** [ˈyɾjo] (← GAA **ȳreor** [ˈyːrɛ.ɔɾ]) ‘I hear’ with Tev./Ert. **irgo** [ˈirɔɔ/ˈirɔʊ], Mur. **irc** [ˈirk], Vom. **ir** [ˈir], Sen. **yr** [ˈír] (in Vom. and Sen., final **-o** is lost), Ile. **zero** [ˈdzirɔ] ‘I hear it;’ Lad. **zâr** [ˈzâr], Isc. **ggiro** [dˈdʒi:ro] ‘I hear.’

Indeed, these voices do appear to be the origin of the A/P-oriented systems; the middle voice corresponds to the A-oriented system, and the passive voice with the P-oriented system. The indirect case arises directly from the Aeranir ablative; cf. GAA **harinā** [haˈri:naː] ‘priest-ABL.SG’ with Tev. **harina** [aˈrina], Ert./Mor./Vom. **arina** [aˈrina/əˈrinə/aˈrinɔ], Sen. **harine** [àˈbín], Ile. **ariña** [ɐˈriɲɐ] ‘priest-IND.SG;’ vs. Lad. **ărină** [əˈrinə], Isc. **arrina** [arˈri:na] ‘priest-ABL.SG.’ The direct-case of most nouns comes from the Aeranir genitive case, however some come from the nominative; these two cases had complementary functions in GAA, the former marking the subject in embedded clauses, and the later marking the subject in matrix clauses, and were interchangeable in LA; GAA **harinī** [haˈri:niː] ‘priest-GEN.SG’ with Tev. **harín** [aˈrín], Ert. **arine** [aˈriɲi], Mor./Vom. **arì** [əˈri/aˈri], Sen. **harin** [àˈbê] ‘priest-DIR.SG;’ vs. Lad. **ării** [əˈrij], Isc. **arrini** [arˈri:ni] ‘priest-GEN.SG.’ The accusative case in SAA languages has two sources as well, the Aeranir accusative and dative cases. However, unlike

with the direct case, these two cases did not merge due to overlapping use. Instead, their merger is purely a consequence of convergent phonological change; GAA **harīnun** ‘priest-ACC.SG.’ **harīnō** ‘priest-DAT.SG.’ vs. Tev. **harino** [a'ri^o], Ert. **arine** [a'ri^u], Mor./Vom. **arī** [ə'ri/a'ri], Sen. **harin** [à'ḫê] ‘priest-ACC.SG.’ This explains the difference in ditransitive coding between Aeranir and the SAA split-system; whilst in Aeranir T and R were marked differently, the two merged in daughter languages. These pathways are laid out more plainly in (16)¹¹.

(16) Grammaticalisation pathways for the components of SAA

nominative	→ direct	active voice	→ split-system
genitive		middle voice	→ A-oriented system
accusative	→ accusative	passive voice	→ P-oriented system
dative			
ablative	→ indirect		

However, a few issues remain that prevent us from proposing a straightforward transition between Aeranir-style alignment and SAA. First of all, we must examine the expansion of argument reintroduction in the middle voice. How did objects come to be reintroduced in clauses not involving verbs of sensation? Secondly, we must establish some grammatical mechanism by which the transition may have occurred. We have identified the morphological basis for SAA, however, we cannot yet explain how it became dependent on an animacy hierarchy. Finally, we must explain the behavior of ditransitive verbs in SAA, which does not follow from Aeranir. As we can see in (17), in the Aeranir passive voice, former T is coded NOM, former R is coded ACC, former D is coded ABL, and the verb indexes R. This is at odds with what we see in the SAA P-oriented system, which supposedly arises from the passive voice, where T is coded ACC, R is coded DIR (← NOM), and D is coded IND (← ABL). T and R appear to have swapped cases. Thus, there must be some other developments at work.

(17) **Zavēlā alta zillae Oscā.** Golden Age Aeranir

[tsa'be:ɫa· 'aɫta 'tsille· 'ɔska·]

z -av -ēlā alt -a zill -ae Osc -ā
 give -PFV -PSV.3PL water -NOM.SG cat -ACC.PL NAME -ABL.SG

“The water was given to the cats by Oscus.”

In order to answer the first two questions, we may turn to LA, as well as early attestations of South Aeranid. By the end of the Empire, we can see that argument reintroduction in the middle voice had expanded past its original purview, modelled after reintroduction with verbs of sensation (18a). Such formations are generally found with animate subjects of high social status, and predominantly in official reports, with some samples in directly quoted speech. It is widely accepted that this represented a form of politeness, specifically referent-oriented negative politeness (Brown & Levinson, 1987; Brown, 2015). Breaking that down; referent politeness is polite language targeted not necessarily at the hearer or addressee, but rather to a third party who is mentioned in the sentence (although this may also be the addressee), and negative politeness is a kind of politeness which seeks to minimise imposition or assumption, as to not impede one’s freedom of action. We theorise that

¹¹The origin of the Ilêsse case system differ slightly, having early developments outside of the SAS, however it was later adapted to fit within the SAA model.

the original non-volitional sensation formation with the middle voice lowered the agency and involvement of the subject, and thus was adapted as a form of negative politeness to do the same towards high-status referents. Lower involvement here equates to less hindrance of the referent’s will or desire. This method of negative politeness persists into Iscariano (18b).

- (18) a. ...**ecce ūle zux praep̄erre lēctōs sartōs cī exūtīcārōvus.** Late Aeranir
 [ˈɛkke ulɛˈtsukʃ prepˈperre ˈlɛktoʃ ˈsartos ci ɛkʃutekaˈroːʃ]
 ecce ūl -e zuc -s praep̄er -re lēct
and DEF -TEM.NOM.SG *general* -NOM.SG *take*.PFV -MID.3SG *all*
 -ōs sart -ōs c -ī exūtīcār -ōvus
 -TEM.ABL.PL *sword* -ABL.PL REFL -GEN.SG *enemy* -GEN.PL
 “...and the general took all their enemies’ swords.”
- b. **La tuggia mmoma ucciangiara zucele ppertlagne.** Iscariano
 [la ˈtuddʒa mˈmoːma uttʃanˈdʒaːra tsuˈtʃɛːlep perˈtɫagne]
 l -a tuggi -a mmom -a ucciangi
 DEF -CYC.NOM.SG *my* -CYC.NOM.SG *mom*:CYC -NOM.SG *cook*
 -ara zucell -e^x pertlagn -e^x
 -MID.CYC3SG FOOD -ABL.PL *best* -CYC.ABL.PL
 “My mother makes the best *zucelle*.”

A similar yet somewhat inverted development may be observed in the evolution of the passive voice to the P-oriented system. It too came to be used to mark referent politeness, however applied to the object, not the subject. Furthermore, the passive was used to project *positive politeness*, instead of negative politeness. This type of politeness seeks to elevate and show interest in or reverence for the referent, and it appears the passive voice, centering high-status semantic objects, was able to achieve this. This also likely overlapped with trends towards topicalisation of high-status referents. Over time, the passive became the preferred polite form for addressing high-status semantic objects, and the same time, the semantic subject (the demoted non-core argument) began to ‘reassert’ its subjectivity, that is, its nature as an external argument (Kratzer, 1998), perhaps as a consequence of *imperfect learning* (Kiparsky, 2008), where aspects of the grammar are based on incomplete set of data, or different analysis of ambiguous output, at an early stage in acquisition, and carried over into the final system. There is evidence, as exemplified in (19)¹², that in the earliest stages of South Aeranid, this realignment was completed, and the former non-core argument A was reincorporated into the syntactic structure as the subject, as evidenced by its ability to command reflexives.

- (19) ***Reles irala jus ci monneros.** Early South Aeranid
 [ˈrɛːleʃ iˈraːla ˈdʒuʃ tsimoˈneːros]
 rel -es ir -ala jus c -i monner -os
child -ABL.PL *listen* -PSV.SBJV.3PL *well* REFL -GEN *parent* -GEN.PL
 “Children ought to listen well to their parents.”
 ?*lit.* “Their_i parents ought to be listened to by children_i.”

¹²An asterisk is placed before the pronunciation of 19, as the sentence is an attested inscription, but the pronunciation is properly unknown, and based on reconstruction.

As the semantic subject is reconstituted as the syntactic subject, we begin to see the ablative case in these situations behave more like an ergative case, and in turn, more like the indirect case. One key indicator of this is the suppletion of personal pronoun forms when ABL/IND encodes A. As Kiparsky observes (2008), ergative cases are generally applied to nouns/NPs, and not determiners/DPs. Therefore, in SAA, personal pronouns, which act as determiners, cannot be encoded IND in the P-oriented system, so suppletive forms derived from nouns and which function syntactically as nouns are used in their stead. For instance, in the open text of this paper (1), the subject of the second clause is **ziem** ‘they.TEM.IND.PL,’ rather than the usual indirect temporary third person pronoun **llos** (which does encode the object in the A-oriented system). The latter is derived from the Aeranir determiner **ūle**, whereas the former comes via the noun **ceмос** ‘people, population.’

Thus, we more closely begin to approach SAA. However, notably absent from the examples given so far are personal pronouns, or SAPs. Within the corpus available, we do find numerous examples of the middle and passive voices being used to show politeness towards second person arguments, which is somewhat expected, as speech partners are one of the primary targets of politeness, however, we never find the same treatment for first person arguments. This is also to be expected, as no form of politeness or respectful language involves promoting the importance of the speaker. Thus, we return to the problem of how the Aeranid voice system transitioned from a politeness marking strategy to the animacy based alignment system called SAA. It is possible that this represents a case of imperfect learning, as mentioned above. Because high-status referents, those towards whom politeness is most likely to be displayed, including the second person, are so high on the animacy hierarchy, learners may have confused the motivation behind the use of the passive and middle, believing them to be tied to animacy rather than politeness. Working under this assumption, they began to apply these voices to the first person above all others as a kind of analogical innovation. Over time, the type of arguments eligible for elevated marking began to dwindle, until only SAPs continued to trigger these voice changes. Finally, the passive and middle voices atrophied as productive inflectional devices elsewhere, and SAA was born.

The dative shift which occurs for T-SAP likewise appears to be an innovation, rather than inherited from the structure of Aeranir, likely motivated by the heightening of the SAP constraints and pragmatic marking issues discussed in the previous section. The demand that SAP arguments be coded DIR and indexed on the verb when in the role of A or P (or D or R, which are essentially extended A and P respectively), was extended by analogy to T, and the constraints present in the grammar produced a dative shift, which demoted R. The strange behavior exhibited around infinitives, however, is at least partially inherited; the law of infinite gravity was present in Aeranir. Aeranir verbs always agreed with the most oblique grammatical function available, and content clauses, which were viewed as maximally semantically oblique, yet somewhat thematically ambiguous, always occupied that spot. Like with T-SAP, this was not a problem, until SAP constraints became higher ranking. However, likely because the law of infinite gravity predated SAP constraints and was highly salient in the minds of SAS speakers, it was the subject that was removed, rather than the complement.

Conclusion

This paper by no means addresses all the complexity and oddity associated with SAA. Phenomena such as unergative and unaccusative verbs, as well as complex predicates, add further twists and developments to the system, which have been avoided here for the sake of brevity. However, it is our hope that this paper has laid out the core of what makes up SAA from a mechanical and synchronic standpoint, as well as a diachronic explanation for how

such an unusual system may have arisen. In short, SAA is the consequence of an animacy hierarchy which seeks to privilege SAP arguments over all others, using m-case marking and verbal indexation, as well as an obliqueness hierarchy, which seeks to privilege both nuclear and oblique arguments. Due to this, a three way split in transitive alignment can be observed, depending on the presence of SAPs and their roles. This peculiar system arose due to the collapse of the Aeranir voice system, through a middle stage focusing on politeness. Such a system, which is unattested at a fundamental level on our own plane, may offer special insights into the minute cognitive difference between the inhabitants of different planes (Lucretia, 5781). In closing, we provide a morphological overview of the evolution described thus far. Table 11 shows the middle, passive, and active personal endings in Aeranir, and how they have evolved into the A-oriented, P-oriented, and split-systems in Aeranir¹³. This table in a way acts as a reminder that morphological categories are not disconnected from each other. Although this article is ostensibly focused on verbs, an understanding of these endings cannot be achieved without an examination of nouns and the role of noun case. SAA demonstrates the interconnectedness and interdependence of grammar, in a way as elegant as it is complex.

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¹³Here, § represents the personal form used for intransitive predicates. Note that only S'entigneis has a full range of special endings for intransitive SAPs, other languages make use of some intransitive endings, but supplement them with A or P-oriented endings where unavailable; for example, Tevrés has intransitive **llavás** 'you laugh' with the A-oriented transitive ending, but **llavais** 'y'all laugh' with the intransitive ending.

GAA	LA	Sen.	Mur.	Vom.	Ert.	Tev.	Ile.	
-or [ɔr̄]	*[o]	∅	∅	∅	[ʊ]	[o]	[ʊ]	-1SG.A
-āsti ['a:st̄i]	*['ast̄i]	[é]	['ast̄]	['as]	['ast̄]	['as]	['a]t̄]	-2SG.A
-ālor ['a:l̄ɔr̄]	*['a:lo]	[él]	['aɫ]	['al]	['alʊ]	['al]	['aɔ]	-1SG.P
-ālāsti [a'la:st̄i]	*[a'la:st̄i]	[él]	['aɫəst̄]	['alɔs]	['alast̄]	['alas]	['e]t̄]	-2SG.P
-az [a:ts]	*[aɫ]	[ɫ]	—	—	—	—	—	-1SG.§
-an [ã]	*[a]	[ɫ]	—	—	—	—	—	-2SG.§
-ās [a:s]	*[as]	[ɫ]	[əs]	[ɔs]	[as]	[as]	[i]	-TEM3SG
-ā [a]	*[a]	[ɫ]	[ə]	[ɔ]	[a]	[a]	[e]	-CYC3SG
-āmur ['a:m̄ɔr̄]	*['a:m̄ɔ]	[ê]	['am]	['an]	['amʊ]	['ãm]	['im ^w]	-1PL.A
-ātur ['a:t̄ɔr̄]	*['a:t̄ɔ]	[ê]	['aɫ]	['ac]	['aðʊ]	['að]	['at ^w]	-2PL.A
-ālāmur [a'la:m̄ɔr̄]	*[a'la:m̄ɔ]	[ê]	['aɫəm]	['alɔn]	['alamʊ]	['alãm]	['em ^w]	-1PL.P
-ālātur [a'la:t̄ɔr̄]	*[a'la:t̄ɔ]	[ê]	['aɫəɫ]	['alɔc]	['alaðʊ]	['alað]	['et ^w]	-2PL.P
-āmus ['a:m̄ɔs]	*['a:m̄ɔs]	[ê]	—	—	['amos]	['amos]	['imi]	-1PL.§
-ātis ['a:t̄ɪs]	*['a:t̄ɪs]	[è]	['aw]	['ats]	['aðɪs]	['ajs]	['ats̄]	-2PL.§
-anz [ãnts]	*[ãnt̄]	[ɫ]	[ən]	[ɔn]	[an]	[ãn]	[ë]	-3PL

Table 11: Comparison of Aeranir verb endings in its descendants

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12

Verbal Agreement in Žskď

by Formor Immington

A unique gender-based system

Žskď, also romanized as **Zhisketh**, is a conlang I began following the 7th Language Creation Conference in 2017 that was originally meant to break some of the typological rules that most languages tend to follow. The best fleshed-out dialect, notable for lacking vowel phonemes, is spoken by a nomadic group dwelling throughout the Birch Forest. Another unique aspect, found in all lects of the language, is its verbal agreement system.

Noun Classes and Morphology

Žskď has two noun classes or grammatical genders, referred to as masculine and feminine since they reflect the natural sex or perceived gender of their human and animal referents. Mixed-gender groups are marked as morphologically masculine on the noun (see (1)). Grammatical gender of inanimates is generally random, though there are some trends, such as conifers being feminine and angiosperms being masculine, as well as feminine diminutives derived from masculine nouns (see (2)). All derived nouns except feminine substantive participles are masculine as well.

(1) **zžt kzc vžlt, kzcď štnz mr kzccď xŋz.**

zžt	kzc -s	-∅	vžl -t,	kzc -s	-ď	štn -z	mr	kzc
1.SG.ERG	<i>deer</i> -M.ABS -TRI		<i>see</i> -N.PST	<i>deer</i> -M.ABS -TRN		<i>two</i> -ABS	<i>and</i>	<i>deer</i>
	-c	-ď	xŋ -z					
	-F.ABS -TRN		<i>one</i> -ABS					

“I saw three deer: two bucks and one doe.”

(2) **zžt pfržď xrkčď mlkčď fkfr.**

zžt	pfrž -š	-ď	xrk -č	-ď	mlk -c	-ď	fkf -r
1.SG.ERG	<i>birch</i> -M.GEN -TRN		<i>wood</i> -F.GEN -TRN		<i>bowl</i> -F.ABS -TRN		<i>make</i> -F.PST

“I made a ladle (lit. ‘little bowl’) of birch wood.”

Prototypically, a feminine noun is formed by adding the suffix -t to the noun stem, but in practice this is often manifested as the case suffix turning from a fricative to an affricate.

Basic Verbal Morphology

Indicative verbs are conjugated for tense, past and present, and to agree with gender but not person. Periphrastic perfect and irrealis constructions use a copula inflected to agree in the same way (see (5)); the jussive aspect is the only TAM category that does not have different forms to agree with noun class. The suffixes consist of one consonant each and are quite regular, with manner of articulation indicating gender and place of articulation indicating tense.

	Masculine	Feminine	Neuter
Present	-ŋ	-R	-k
Past	-n	-r	-t

In the case of groups of inanimate nouns or same-gender groups, agreement is somewhat straightforward: the verb agrees with the gender of the absolutive argument (see (3)). However, there is a third agreement class of suffixes besides the masculine and feminine, called the neuter by convention, that does not correspond to any noun class, which complicates things somewhat.

(3) **ʔnč tɥtɥð znvčð mrðpðr.**

ʔnč tɥtɥ -∅ -ð znv -c -ð mrð -pð -r
 1.SG.GEN *father* -M.ERG -TRN *pine* -F.ABS -TRN *cut* -down -F.PST

“My father cut down pine trees.”

Uses of the Neuter Agreement Affixes

The neuter agreement affixes are used for: groups of mixed natural gender or noun class, as seen in example (1); for groups of three (in less formal language, a few) things without natural gender, marked with trial number, as seen in example (4); and for complement clauses: they are treated as an argument of the sentence, so when the complementizer is in the absolutive as seen in example (5), the agreement suffix is neuter. I also use the neuter to agree with real-world people who are not comfortable with being referred to using a morphological masculine nor feminine.

(4) **čvc ḳv xnc̣t.**

čv -c -∅ ḳv xnc -t
door -F.ABS -TRI 3.PL.DAT *open* -N.PST

“Three doors (were) open(ed) for them.”

(5) **vs ḳzt zr-krnvzr, ḳvt zžt ṭlžt.**

v -s ḳzt zr=krnvz -r, ḳvt zžt ṭlž -t
 C -ABS 3.SG.ABS *be.F.PST=elect* -F.PST 3.SG.DAT 1.SG.ERG *tell* -N.PST

“I told her that she’d been promoted.”

Discussion

Aside from the unique usage shown in example 6, the usage of the neuter agreement on the verb represents all usages that can be thought of as “default” or requiring “resolution,” as described in Corbett 2007. While most languages end up needing to use some existing noun class to refer to these anomalous cases, *Žskď* is unique in having a special agreement category for such cases that matches up to no particular class assigned to nouns.

However, it is much like other languages in that the least marked noun class, in its case the masculine, is used on nouns in such anomalous situations, as seen in example (1): *kzc-s-∅* in the first clause is morphologically masculine, even though we see in the next clause that it refers to two males and one female.

The origin of the “neuter” agreement, and by extension the noun class agreement system in general, is unclear. It is unlikely that the neuter suffixes ever corresponded to a specific noun class, as it would theoretically be overtly marked like the feminine. A more likely explanation is that the “neuter” originally indexed the trial number, while the other two indexed transnumeral number and noun class, resulting in a system described the chart below:

	Masculine	Feminine
Transnumeral	-ŋ, -n	-R, -r
Trial	-k, -t	

This would explain another oddity of *Žskď*: since the “neuter” suffixes can agree with mixed-gender groups of either grammatical number, none of the agreement suffixes specifically index number, violating Greenberg’s linguistic universal no. 32, which states that “Whenever the verb agrees with a nominal subject or nominal object in gender, it also agrees in number” (Greenberg 1963). A stage of the language preceding the stage analyzed, where the “neuter” suffixes were only used for trial nouns and not the other usages examined here, would explain how *Žskď* came to violate universal no. 32.

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13

Verbs and Verbal Constructions In Akhazad

by Anvelt Koidula

Verbs and converbs of the Akhazad

Introduction

Akhazad is the language of a paternalistic agricultural society still carrying the traces of a matriarchal era in its culture, the Khazud people. It is a widely spoken language with many dialects, but I will mainly focus on the written prestige dialect for the course of this article. Its notable features include a vowel harmony system between two front and two back vowels which are phonemically just the long and short (now that the short ones shifted to close vowels and long ones lost the length, are called plain and breve vowels respectively), a grammar depending heavily on agglutination mainly in the form of prefixes and transfixes which are superimposed on triconsonantal roots, a seximal number system and still visible traces of an isolational past. Each triconsonantal root is also tied in with a vowel harmony class, so these roots are expressed as V-CCC. For example **a-khzd** and **e-khzd** are different roots, with different meanings.

Verbal constructions, as expected, also use these methods heavily. The making of converbs and negation is expressed via prefixes. Triconsonantal roots take transfixes for expressing number, person, voice, tense, mood and aspect. These conjugated verbs in turn can be negated and made into converbs with prefixes. In this article, I want to look more into the rules and patterns behind these conjugations and their historical origin.

Use of transfixes

So I am aware these are very big tables which honestly do not tell a lot, but I'll clarify what they mean now. So a "B" stands for a breve vowel (/a e/ but surfaces as [u i]. u is also <u>.) and a "P" is a plain vowel (/a: e:/ but they surface as [a e]). A "C" is, as expected, a consonant. It shows where do the parts of triconsonantal roots show up in transfix. Other consonants are predetermined.

Origin of the actual transfixes, which is all of them barring the person indicators at the end

Realis Verbs			past perfect	past imperfect	habitual	present	future
1st	SG	active	PCCPCPs	PCCBCPs	PCCPCBs	PCCPCPn	PCCBCPn
		passive	PCCPCPsB	PCCBCPsB	PCCPCBsB	PCCPCPnB	PCCBCPnB
	DU	active	PCCPCPsPg	PCCBCPsPg	PCCPCBsPg	PCCPCPg	PCCBCPg
		passive	PCCPCPsBg	PCCBCPsBg	PCCPCBsBg	PCCPCPgB	PCCBCPgB
	PL	active	PCCPCPsPd	PCCBCPsPd	PCCPCBsPd	PCCPCPd	PCCBCPd
		passive	PCCPCPsBd	PCCBCPsBd	PCCPCBsBd	PCCPCPdB	PCCBCPdB
2nd	SG	active	PCCPCPh	PCCBCPh	PCCPCBh	PCCPCPnPh	PCCBCPnPh
		passive	PCCPCPhB	PCCBCPhB	PCCPCBhB	PCCPCPnBh	PCCBCPnBh
	DU	active	PCCPCPhPg	PCCBCPhPg	PCCPCBhPg	PCCPCgPh	PCCBCPgPh
		passive	PCCPCPhBg	PCCBCPhBg	PCCPCBhBg	PCCPCPgBh	PCCBCPgBh
	PL	active	PCCPCPhPd	PCCBCPhPd	PCCPCBhPd	PCCPCPdPh	PCCBCPdPh
		passive	PCCPCPhBd	PCCBCPhBd	PCCPCBhBd	PCCPCPdBh	PCCBCPdBh
3rd	SG	active	PCCPCPkh	PCCBCPkh	PCCPCBkh	PCCPCPnPkh	PCCBCPnPkh
		passive	PCCPCPkhB	PCCBCPkhB	PCCPCBkhB	PCCPCPnBkh	PCCBCPnBkh
	DU	active	PCCPCPkhPg	PCCBCPkhPg	PCCPCBkhPg	PCCPCPgPkh	PCCBCPgPkh
		passive	PCCPCPkhBg	PCCBCPkhBg	PCCPCBkhBg	PCCPCPgBkh	PCCBCPgBkh
	PL	active	PCCPCPkhPd	PCCBCPkhPd	PCCPCBkhPd	PCCPCPdPkh	PCCBCPdPkh
		passive	PCCPCPkhBd	PCCBCPkhBd	PCCPCBkhBd	PCCPCPdBkh	PCCBCPdBkh

Irrealis Verbs			past perfect	past imperfect	habitual	present	future
1st	SG	active	BCCPCPs	BCCBCPs	BCCPCBs	BCCPCPn	BCCBCPn
		passive	BCCPCPsB	BCCBCPsB	BCCPCBsB	BCCPCPnB	BCCBCPnB
	DU	active	BCCPCPsPg	BCCBCPsPg	BCCPCBsPg	BCCPCPg	BCCBCPg
		passive	BCCPCPsBg	BCCBCPsBg	BCCPCBsBg	BCCPCPgB	BCCBCPgB
	PL	active	BCCPCPsPd	BCCBCPsPd	BCCPCBsPd	BCCPCPd	BCCBCPd
		passive	BCCPCPsBd	BCCBCPsBd	BCCPCBsBd	BCCPCPdB	BCCBCPdB
2nd	SG	active	BCCPCPh	BCCBCPh	BCCPCBh	BCCPCPnPh	BCCBCPnPh
		passive	BCCPCPhB	BCCBCPhB	BCCPCBhB	BCCPCPnBh	BCCBCPnBh
	DU	active	BCCPCPhPg	BCCBCPhPg	BCCPCBhPg	BCCPCgPh	BCCBCPgPh
		passive	BCCPCPhBg	BCCBCPhBg	BCCPCBhBg	BCCPCPgBh	BCCBCPgBh
	PL	active	BCCPCPhPd	BCCBCPhPd	BCCPCBhPd	BCCPCPdPh	BCCBCPdPh
		passive	BCCPCPhBd	BCCBCPhBd	BCCPCBhBd	BCCPCPdBh	BCCBCPdBh
3rd	SG	active	BCCPCPkh	BCCBCPkh	BCCPCBkh	BCCPCPnPkh	BCCBCPnPkh
		passive	BCCPCPkhB	BCCBCPkhB	BCCPCBkhB	BCCPCPnBkh	BCCBCPnBkh
	DU	active	BCCPCPkhPg	BCCBCPkhPg	BCCPCBkhPg	BCCPCPgPkh	BCCBCPgPkh
		passive	BCCPCPkhBg	BCCBCPkhBg	BCCPCBkhBg	BCCPCPgBkh	BCCBCPgBkh
	PL	active	BCCPCPkhPd	BCCBCPkhPd	BCCPCBkhPd	BCCPCPdPkh	BCCBCPdPkh
		passive	BCCPCPkhBd	BCCBCPkhBd	BCCPCBkhBd	BCCPCPdBkh	BCCBCPdBkh

Impero-Volative Verbs	past	present	future
1st	BCCPCP	PCCPCP	PCCBCP
2nd	BCCPC	PCCPC	PCCBC
3rd	BCCPCPy	PCCPCPy	PCCBCPy

which are more like suffixes, happened via mingling of various circumfixes, infixes, suffixes and prefixes. Person indicators are newly bound morphemes subjected to vowel harmony, which were originally separate from the word. They share the phonemes with personal pronouns they originated from.

Akhazad also has gerundive forms which are pCpCpC for singular, pCbCpC for dual and pCbCbC for plural. The word **Akhazad**, name of the language herself, is just the root **a-khzd** in a singular gerundive form, meaning ‘act of speaking, speech’ and by extension ‘language.’

The language has tense and aspect intertwined to the point native Akhazud grammaticians consider them to be one thing, but it originally had a perfective and an imperfective aspect and a three tense system of past, present and future. Later, future continuous fell out of use. It also has three moods: a realis mood, an unrealis mood and a mood I call an impero-volative.

Realis

Realis mood is pretty straight forward. It has a past perfective which is used for actions and events at the past that were more immediate-one time happenings.

(1) Zegeret aryatas, hah zasagar nanaryatas.

ze- geret	aryatas	hah	za- sagar	nan-
ACC- guard.GER	injure.1.SG.PST.PFV	but	ACC- represent.GER	NEG-
	aryatas			
	injure.1.SG.PST.PFV			

“I shot the sheriff, but I did not shoot the deputy.”

Its past imperfective is used for past habitual contexts and former facts(i.e. historical situations that are no longer present) too, and it implies some event went on for a duration in the past.

(2) Eyekey zasan sar rasan anarud ehset aynukas.

eyekey	za- san	sar	ra- san	anarud	ehset	aynukas.
to.be.alone.GER	ACC- 1.SG	for	GEN- 1.SG	whole	life	follow.1.SG.PST.IPFV

“Loneliness has followed me my whole life.””

Habitual is used for, well, habits, stuff people got used to, general facts.

(3) Luka, san reseg harakh ehsetis.

Luka	san	re- seg	harakh	ehsetis.
Luke	1.SG	GEN- 2.SG	father	be.1.SG.HAB

“Luke, I am your father.”

Present is used for present time, also sometimes in place of future continuous which was lost. In those cases it generally gets combined with an adverbial or such indicating time.

(4) Lahat neseneg alhatanakh, ya eseneg zakhan nanankharakh.

lahat	ne- seneg	alhatanakh	ya	eseneg	za- khan	nan-
light	DAT- dark	shine.3.SG.PRS	and	darkness	ACC- 3.SG	NEG-
	ankharakh.					
	digest.3.SG.PST.PFV					

“The light shines in the darkness, and the darkness has not overcome it.”

Future tense is used for events that will happen in the future.

(5) **Zeyezde enninenekh, ya heneyed Yesiye enyid.**

ze-yezde enninenekh ya he-neyed Yesiye enyid
 ACC-son give.fruit.3.SG.FUT and INSTR-name Jesus name.2.SG.IMPPLTE

“She will give birth to a son, and you are to give him the name Jesus.”

Irrealis

Irrealis mood is actually only morphologically an irrealis. Syntactically, its combinations with tenses (and aspects, but I will omit that part from now on since they’re intertwined anyway) now convey meanings of various moods used for various situations.

The morphological past imperfective irrealis is semantically a conditional mood, expressing conditions for some other action to happen. Morphological past perfective irrealis is a subjunctive mood, which is used to talk about hypothetical events, hypothetical results of other events, and a bunch of idiomatic uses.

(6) **An zahan agalud irleyes, zasan anakur irliyes.**

An za-han agalud irleyes za-san anakur irliyes.
 if ACC-2.SG ever lose.1.SG.COND ACC-1.SG definitely lose.1.SG.SBJV

“If I ever were to lose you, I’d surely lose myself.”

Habitual irrealis is potential mood expressing someone is capable permitted of doing an action.

(7) **Ankaran zitnehis.**

ankaran z(e)-itnehis
 believe.1.SG.PRS ACC-fly.1.SG.POT

“I believe I can fly.”

Present irrealis is an interrogative mood, used to ask yes and no questions, also in formal speech used together with the question words. In informal speech, just the indicated tenses are used with question words.

(8) **Sanad tarannu iktekenekh?**

sanad ta-rannu iktekenekh
 bear ALL-forest.PL defecate.3.SG.Q

“Does a bear poop in the woods?”

Future irrealis is a potential-hypothetical mood, used when some action has a chance to happen.

(9) **Azunan zasan askhuganah, san isgilen.**

azunan za-san askhuganah san isgilen
 next ACC-1.SG see.2.SG.FUT 1.SG smile.1.SG.HYP

“Next time you see me, I may be smiling.”

Impero-volative

The last mood is impero-volative. None of its forms distinguish for number, and it doesn't have an imperfective/perfective distinction too. So it has only three persons and three tenses. Its past tense is used for optative mood, used to express hopes and wishes.

(10) Ihset azanun!

ihset azanun
live.2.OPT long

“May you live long! (It is an Akhazud phrase used when hitting the glasses)”

Its present is for strong imperative, which may come off as rude if used against someone deemed socially superior, as my languages have a fair share of honorific structures.

(11) Zasan rike nanadrak!

za- san r(e)- ike nan- adrak
ACC- 1.SG PROX- *when* NEG- stop.2.IMP.GNR

“Don't stop me now!”

Its future conjugations are used for a more polite imperative, a wish from someone if you will.

(12) Rasan zeyezde ahrukh!

ra- san ze- yezde ahrukh
GEN- 1.SG ACC- *child* save.2.IMP.POL

“Please save my child!”

Voice, person and number marking

As you can see, Akhazad also marks person on verbs. One thing that should be of note here is dual is more polite than singular, and more intimate than plural. You would refer to a liege, or a high priest with plural conjugations, a teacher or a senior family member with dual ones and your friend or little brother with singular ones. Dual is used for pairs and couples doing stuff otherwise. Most clothing items' nouns are in dual number and verbs in those sentences are also so. Also semantically plural but structurally singular words like 'army' or 'forest' don't really exist in Akhazad and are covered with both structurally and semantically plural versions of words 'soldier' and 'tree.' So, they take plural numbers on their verbs too.

Voice distinction of Akhazad is two-way. There is an active, and a passive. Passive is used for natural events like weather and sea happenings, when it is unclear or not stated who did the verb and when the agent of the verb is the same as the patient. In all other cases an active voice is used.

Use of prefixes

Akhazad isn't quite unusual with any part of its verbal system, but I'd say overall the converb system is spicier. There is also negation, which I will touch on briefly because it is quite simple. Negation is done with a nPn- suffix (P being a plain vowel again) for singular verbs and a nBn- suffix (with a breve vowel) for dual and plural verbs.

Converbs

The converb system arose when Akhazud people started to use noun case prefixes also before conjugated verbs. Note the vowel parts of these prefixes are instead a stress shift and length change when the stem starts with a vowel. Akhazad cases are something like this:

Cases	Genitive	Accusative	Dative	Lative	Ablative	Instrumental	Causal
Singular	rP-	zP-	nP-	tP-	gP-	hP-	yPt-
Dual	rB-		nB-	tB-			
Plural		zB-			gB-		

Dative is a synchronic, causal is resultative, ablative is successive, allative is predecessive, accusative is gerundive, instrumental is synchronic for larger time spans instead of moments, genitive is used to mark verb clauses in a similar way to English *'that.'* These cases-converbial markers can be used with verbs combined with any tense-aspect-mood combination.

Genitive is pretty straight forward, it marks verb clauses as the subject of the sentence. Accusative marks them, instead as the object of a sentence. Also accusative, when used together with present tense third person of the impero-volative serves as gerundive form of the word and it is called infinitive.

(13) **Renzileh irliyekhi zekhniyehi.**

r(e)-enzileh irliyekhi z(e)-ekhniyehi
 GEN- do.2.SG.PST.IPFV lose.SBJV.3.SG.PSV ACC- oblige.2.SG.PST.IPFV.PSV

“All your deeds in past could have been lost to things you were obliged to do.”

Dative and instrumental are similar in they both express that verb clause is happening as the same time as main verb of the sentence but there is a distinction. Dative is used for instant things, so once the verbal clause verb happens the main verb happens immediately. It is used for prophecies and certain statements because of this. Instrumental expresses more of a process. It expresses that verbal clause will happen for a time span which covers the time/time span the main verb happens.

Causal is a resultative. It is used to express that main verb happened as a result of the verbal clause happening. Other two cases, lative and ablative are used to express the relative time of verbal clause in comparison to main verb. Lative expresses the verbal clause happened before main verb did, and ablative expresses it happened after the main verb did.

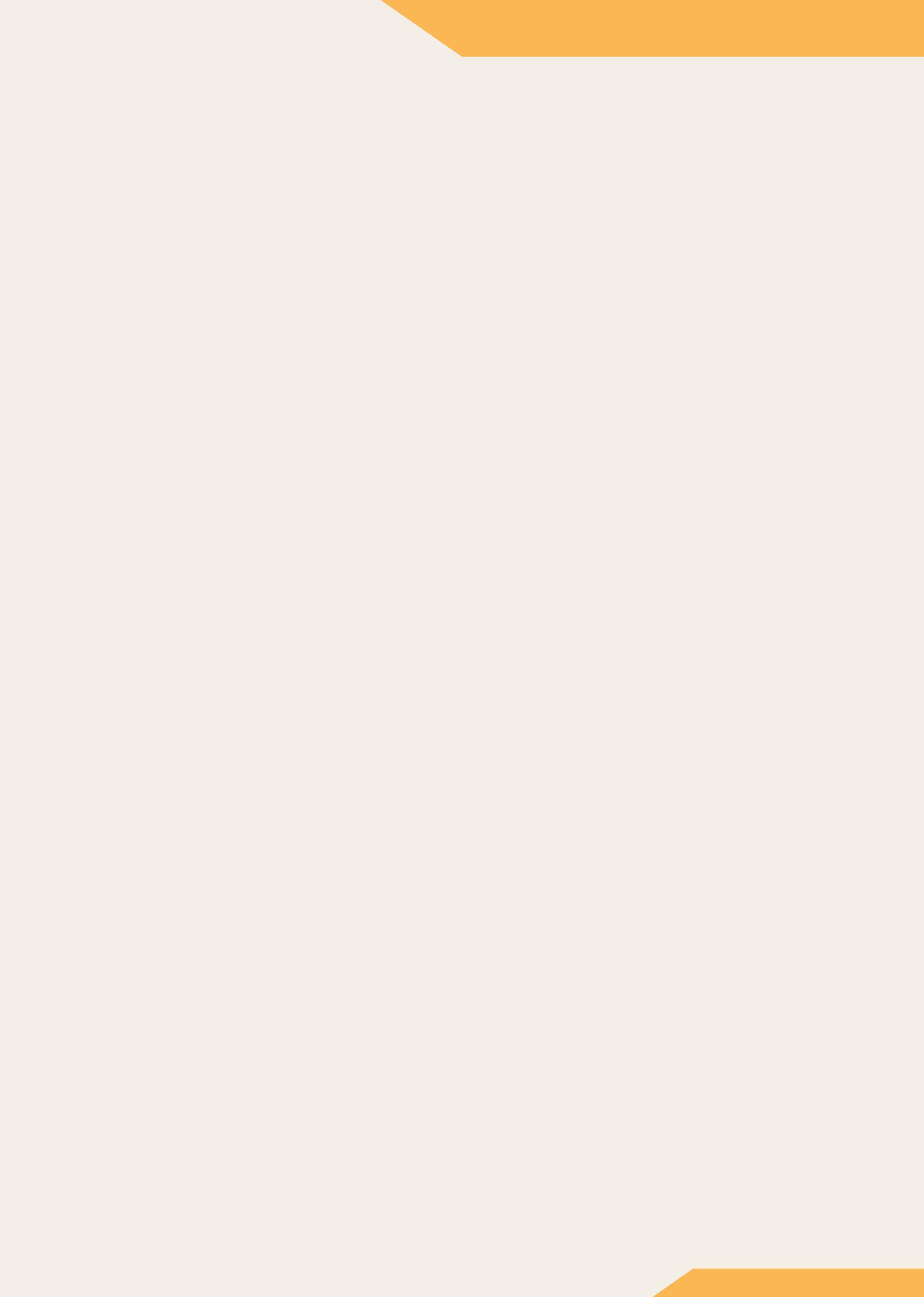
A few last words

The actual thing which allows these converbs to cover a larger range of meaning is that they can be used in combination with any moods and so on. So you can give sequential orders with a locational case converb and imperative mood's present, or you can express something like *'not before you would get spoken to'* with a negative lative converb in combination with an

irrealis past perfective passive. Combinations of these kind allow verbal clauses and verbal expressions to carry a lot more information.

I am sorry I didn't have more cultural phrases and idioms as examples, but I really didn't work on the Akhazud culture yet. So this is all I have to tell so far about Akhazad language verbs. If you have questions or suggestions I'm always interested to hear!

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14

The Flow of Mercury

by Miss Merlin Monroe

Applications of the Dependent Mood in POST

In addition to polarity, tense, a direct-inverse distinction, and transitivity, verbs in my personal artlang, **POST** (**P**olysynthesis, **O**mnipredication, **S**emitic Roots, **T**one), can be marked for one of two moods: Independent (also known as **Sulphuric**), used for the main verb of clauses; and Dependent (also known as **Mercurial**) which is used for all dependent clauses. Because all semantic roots in POST are verbal in nature, any nouns, adjectives, and adverbs must be expressed as dependent clauses. This article aims to explore all of the above applications of the Mercurial in the language. POST also features infinitive and conjunctive constructions, which are considered Mercurial, and will thus also be discussed below.

Formation of Nouns

POST forms nouns by putting a consonantal root into the dependent mood, then adding one of eight nominalization prefixes. As an example, let's take the root (also known as a **Salt**) **-ñ-ñ-m-** (<ñ> represents the palatal nasal phoneme /ɲ/), meaning 'to eat or drink,' and use it to form a noun referring to that which is eaten (i.e. 'food'). The process begins by applying a direct, passive, affirmative, present tense dependent conjugation (i.e. one that means 'that is X'ed'). While Sulphuric conjugations often follow the pattern of CVCVCV, Mercurial ones generally follow the pattern VCVCVC. The conjugation that matches the previous description is **á1í2a3** (a vowel with an acute diacritic carries a high tone; any vowel repeated orthographically is long.) Applied to the root, we form a new word, **áñíñam**.

This is a complete verb form in POST, and could very well be used as a relative clause as well (more on that below), but it still needs a nominalizing prefix (hereafter called a **coagulant**) to become a noun (Sulphuric forms cannot take a nominalizer). Because most food is solid, it isn't unreasonable to use the coagulant for solid objects, **i-** (pronounced /j/). Applied to the dependent clause we created earlier, we now have a new word, **íáñíñam** (IPA: [jaˈɲ.ɲiː.ɲam]), meaning 'solid object(s) which is/are eaten' (grammatical number is not marked in POST, except for in personal pronouns). A suitable word for food, I would say, if not a little uncreative.

I feel I should take some time to explain some of the design philosophy behind POST, in order to give some insight as to why it seems so roundabout and vague. POST was designed to be a language that deprioritizes “objective reality” to focus on the subjective experience of the speaker. It focuses not so much on what things are as much as their impact on the world of the speaker. Indeed, any infinite number of words could be formed to mean ‘food.’ ‘*That which nourishes,*’ ‘*that which brings (people) together,*’ and ‘*that which continues a tormented existence*’ could all be literal translations for different words for ‘food,’ depending on the speaker. ‘*That which is eaten*’ is a comparatively bland construction for ‘food.’ Deliberately so, in fact, as it is meant to show my desire to explain a grammatical feature of POST to the reader of this article as simply as possible. In other words, POST’s lack of “words” in an Englishy sense is meant to make the subtext of natural languages into the surface-level text of POST.

Mercurial Forms as Relative Clauses and Adverbs

As explained above, once a Mercurial conjugation is applied to a Salt, the resulting word can be used to modify noun phrases, verb phrases, and even to other Mercurial forms. For this example, a new word, **óbuúwøñ**, (POST’s <ø> is pronounced slightly lower than the IPA’s, as is its <o>), meaning ‘*fattening*’ (or ‘*makes [one] bigger,*’ more literally) will be joining us.

Any Mercurial modifying a Sulphuric or a coagulated Mercurial must follow the modified word. For example, **íáñiíñam óbuúwøñ** means ‘*fattening food.*’ ***óbuúwøñ íáñiíñam** is ungrammatical. This is in contrast to Sulphuric verbs, which always come before their arguments. The Sulphuric version of **óbuúwøñ** is **bówyýñø** (don’t worry, the change of the vowels is due to POST’s sound change rules; they’re still the same vowels, phonemically speaking. <y> is pronounced similarly to the IPA’s), and would be used in the clause **bówyýñø íáñiíñam** ‘*(The) food (is) fattening.*’)

Because all adjectival senses are verbs in POST, all “adjectives” are just relative clauses. Therefore, verbal senses modifying nouns are treated exactly the same. For example, **sósyýwøch eléerél** (<r> is an alveolar tap [r] word-medially) means ‘*loved one(s) who do(es) not speak,*’ a phrase I use to refer to my pets.

A final example, this time with a Sulphuric: **ñeñímé ísíúthitl** (IPA: [nɛ̞.ɪ.nɪ.ɾ.mɛ̞.ɪ.ɪ.ɪ.zi.ɪ.ðit̪]), meaning ‘*(I) eat healthily.*’ ‘*Eat*’ is of course **ñeñímé**, **ísíúthitl** is ‘*healthily*’ (note the VCVCVC pattern), and ‘*I*’ is only implied to be the subject without further context (despite not conjugating for person, POST is pro-drop).

An Example Using the Infinitive Mood, For Good Measure

Infinitives in POST correspond to those in English (i.e. verbs with the preposition “to” before them), and are used for very similar constructions: “I want to X,” “I need to X,” “I am able to X,” “It’s easy/hard/embarrassing/good/bad to X,” *et cetera*. Let’s examine the following POST sentence to get a better idea of how it works there.

(1) **í lhetsívéll jíquíth chelhíisé ua.**

[i̞ ɬɛ̞.ɪ.tsi̞.ɪ.βɛ̞ ɟi̞.ɪ.kʷi̞θ̞ ɟɛ̞.ɪ.ɪ.ɪ.sɛ̞ ɪ.ɪ.ɪ.wa̞]

í	lhetsívéll	jíquíth	chelhíisé	ua
at	forest	move.REFL.CAUS.INF	want.AFF.DIR.ACT.PRS	1.SG

“I want to go into the woods.”

As noted in the gloss above, the third word **jíquíth** is in the infinitive form. Here we can see the characteristic shape of infinitives: CVCVC. Infinitives always carry this shape.

Also of note is the syntactic construction on display here. Matrix clauses, like *chelhíisé ua*, have a syntax of either VSO or VOS, depending on if the Sulphuric is conjugated to be direct or inverse (look up direct/inverse distinction in languages like Navajo for more information). However, dependent clauses, like *í lhetsíivéll jíquíth*, follow a SOV/OSV word order (the more animate noun is still listed first.) Additionally, all dependent clauses in a given POST sentence must precede the matrix clause, meaning matrix clauses always come last. This applies to dependent clauses using the conjunctive tense as well.

Below is a table of all eight coagulants in POST.

Coagulant (IPA)	Noun Class
s- (/s/)	humans, animals, anything with a “will”
f- (/f/)	trees, shrubs, and woody vines
th- (/θ/)	herbaceous plants and other forms of life
lh- (/l/)	places, times, abstractions, and gases
l- (/l/)	liquids, pourable solids, and containers thereof
r- (/r/)	long, flexible objects
u- (/w/)	long, inflexible objects
i- (/j/)	solid objects, anything heavy with relation to volume

Some Examples Using the Conjunctive Tense, For Better Measure

Sulphuric verbs in POST can have one of three tenses: present, past and future (this is a massive oversimplification of how tense actually works in POST, but that’s beyond the scope of this article.) Mercurial senses carry one additional tense: the conjunctive tense. Used for a number of purposes shown below, it is primarily used to express events that happen either sequentially leading up to the Sulphuric verb, or at the same time as the Sulphuric. An example:

(2) **í lhøwínguøx chelhérií búútlótlótl úúquotlóth síreréx!**

í	lhøwínguøx	chelhérií	búútlótlótl	úúquotlóth
at	street	run.CONJ.DIR.AFF	hit.PST.INV.AFF.ACT	nearly.PST.AFF
	síreréx			
	person.pejorative.PST			

“I was running down the street when this guy nearly ran me over!”
lit. “I ran down the street, and this guy nearly hit me!”

Of note, the conjunctive verb in this sentence, **chelhérií**, does not follow the VCVCVC pattern that other Mercurial verbs do, and thus cannot take a coagulant. It also ends with a rising tone, a trait unique to conjunctive verbs.

Conjunctive verbs have other uses as well, of course. Combined with one of POST’s eight locative verbs, it can be used to form an imperfective aspect. For instance:

(3) **í lhøwínguøx chelhérií rííresé.**

í lhøwínguøx chelhérií rííresé
 at street run.CONJ be.PST

“I was running down the street.”

Conjunctive verbs can also be combined with one of POST’s four prepositions to form the senses “if,” “since/because,” “in order to,” and “despite.” Here are some example sentences to demonstrate this phenomenon:

í sethétlií sethíibé. *“If I am physically healthy, then I am mentally healthy.”*

né sethétlií sethíibé. *“Because I am physically healthy, I am mentally healthy.”*

whú sethébií síthiítli. *“In order to be mentally healthy, I make myself physically healthy.”*

quá sethétlií sethéebé. *“Despite being physically healthy, I am not mentally healthy.”*

Conclusion

I originally designed POST to be a language to help me examine more closely how the world outside my head affects the world inside my heart. I wanted to focus less on what the things contributing to my anxiety and depression were, and more on what they were doing to stoke those negative feelings. With that in mind, I knew verbal constructions had be part of the language’s foundation. It took a long time to decide upon how exactly I wanted to handle things like nouns, adjectives, adverbs, but I would like to think I have devised a satisfactory system of derivation using dependent verbs. I sadly don’t have a central location to learn about POST that’s publicly available. However, any interested readers can learn more about POST from my Reddit posts under the name [u/mukbangmustache](#). Thank you for reading and thank you to the Segments team to help me share POST with a broader audience.

15

A Unified View of the Anroo Suffix -ra

by miacomet (a.k.a. u/roipoiboy)

Finding a language's voice

Anroo is a group of dialects spoken by nearly one million residents of the Junpa Islands in the Southern Archipelago. The language is being actively transmitted to children, although there is language shift to Mekaḷe among some urban speakers. Urban Anroo speakers are often multilingual, speaking Mekaḷe or southern Mwaneḷe dialects, but rural speakers are often monolingual. Judgments were obtained from fluent speakers of Anroo who are bilingual with Mwaneḷe.

Nouns, verbs, and ideophones are the only open word classes; closed word classes include adpositions, adjectives, pronouns, and particles. Anroo verbs inflect for egophoricity, aspect, and voice. One voice suffix in particular, **-ra**, has proven difficult to describe. This paper suggests a new analysis of **-ra**.

I'll begin with some notes on Anroo grammar which will help in understanding the meaning of the suffix **-ra**. Then I'll outline the environments in which **-ra** occurs. Next I'll discuss past explanations of the suffix before presenting a new analysis. Last, I'll talk about how it squares with previously unexplained data.

Introduction to Anroo

Sentence Structure

In sentences with intransitive verbs, the single argument, which I'll call S, comes before the verb. Anroo has two different places where verb objects can go. The first, which I'll call the P position, comes immediately before the verb. The second, which I'll call the E position, comes after the verb. Generally objects in the P position are highly affected, more canonical transitive verb objects, while objects in the E position tend to be less highly affected objects, recipients and goals, or experiencers. When a verb has both an agent and an object in the P position, the agent comes before the object and is marked with the ergative case clitic =**ku**. I'll call the ergative-marked subjects A. These four roles are distinguished by their position in

the sentence, their topic marker selection, and their interactions with voice marking. Here are the four common coding frames, using the above abbreviations along with V for the verb.

- (1) a. S V (Intransitive)
 b. S V E (Extended Intransitive)
 c. A=ku P V (Transitive)
 d. A=ku P V E (Extended Transitive/Ditransitive)

Topic Marking

The topic of a sentence defines the context in which the listener is meant to interpret the sentence or refers to something previously mentioned to situate the sentence in discourse. It's marked with one of three topic markers and followed by a prosodic break. The particle **ku** marks the topicalized A of a transitive verb.¹

- (2) **Xitra ku, nuuhu wo ñii nle.**

xitra ku nuuhu wo ñii n= nle
 NAME TOP.ERG knowledge not.have person ATTR= 2

“As for Xitra, she doesn’t know who you are.”

The particle **ro** marks the topicalized P of a transitive verb.

- (3) **Mù ro, nki iimnraa-kii.**

mù ro nki iim -ra =ki
 rice TOP.ACC 3 eat -RA =DEL

“As for the rice, they ate some of it.”

The particle **a** marks everything else, including S of an intransitive verb, E of an extended transitive or intransitive, and any adjunct or adverbial clause. Adverbial phrases marked with **a** do not have to be constituents extracted from the sentence. They can stand on their own.

- (4) **Fawo a, took mee-toon ènparènpa.**

fawo a took mee =tol ènparènpa
 canoe TOP leave just =PRSP IDEO:gentle.floating

“The canoe is about to float away.”

(5MOYD #1200)

- (5) **Gatè a, npo mxaar.**

gatè a npo m-xaa -ra
 termite TOP 1.PL NEG-want -RA

“That brat isn’t the one we want.”

¹Unlike the homophonous ergative marker **ku**, the topic marker doesn’t undergo nasalization harmony with the word before it.

(6) **Hak ga a, xèlù-ku nroom npa imee towoon.**

hak ga a xèlù =ku nroom npa imee towoon
every day.before TOP *cook* =ERG *need* *have* *dried.noodles* *hang*

“The night before every day, the cook has to hang noodles to dry.” (AN–COOK)

When you topicalize or focus adjectives, you can’t move them by themselves: you have to move the noun they modify too. This is called ‘pied piping.’ Adjectives are always topicalized with **a**, even if they pied-pipe a noun phrase that would be assigned ergative or accusative case. Topicalizing the complement of an adposition pied-pipes the adposition. The complement must come before the word that governs it and be followed immediately by the topic marker, which results in inversion for objects of prepositions.

(7) **Hojè a ñii, poku ehontura-jè.**

hojè a ñii po =ku e-hontu -ra =jè
gushing TOP *person* 1.SG =ERG EGO- *give.in.to* -RA =DUR

“Talkative people, I can’t stand them.”

(8) **Riyu a xo, xèlù-ku oojaa eko kelora-ki.**

riye -u a xo xèlù =ku oojaa eko kelor -ra =ki
knife -OBL TOP *with* *cook* =ERG *sharp* *onion* *cut.with.knife* -RA =DEL

“With a knife, the cook chops pungent onions.” (AN–COOK)

Attributives with n=

Some kinds of modifiers follow the noun, linked to it with the clitic **n=**. These include attributive nouns, full clause modifiers, and gapped relative clauses. The following examples show different kinds of attributive modifiers (marked in square brackets []), all following their heads with the attributive marker **n=**.

(9) **Xèlù npo o’ase-ku hojè ora goo-jèè kra selkeltel.**

xèlù n= [po o-ase] =ku hojè ora goo =jè kra
cook ATTR= 1.SG POSS-*friend* =ERG *gushing* *work* *work.hard* =DUR *work.hard*
selkeltel
IDEO:*busy*

“My friend the cook has a busy life.” (AN–COOK)

(10) **M nki sarke to troha vo.**

m n= [nki sarke to] troha vo
fact ATTR= 3 *lean* *too* *fall* *see*

“It turned out she was sick too.” (AN–BOAT)

(11) **Npoku waam nra kasol entù soo plezè anroo.**

npoku =ku waam n= [nra kasol] e-ntù soo plezè anroo
1.PL =ERG *drink* ATTR= *give* *health* EGO- *choose* *take* *elder* *local*

“We bought refreshing drinks from an old local.” (AN–BOAT)

- (12)
- Halce nki vur omo npe faa ro, npo evovor, iltè ehili-zo.**

halce n = [nki vu -ra omo npe faa] ro npo e-vovo-ra
 boat ATTR= 3 say-RA house in return TOP.ACC 1.PL EGO-find -RA
 iltè e-hili =zo
 and.so EGO-line.up =INCH

“We found the boat that she said went home, so we got in line.” (AN-BOAT)

All gapped clause modifiers are restrictive: they pick out a specific referent with that property. Other clausal modifiers may be restrictive or non-restrictive: they may pick out a specific referent, but they may also just provide additional or parenthetical information about a noun. Compare the restrictive modifier in 13 with the non-restrictive modifier in 14.

- (13)
- Context:*
- Talol and Xitra both cooked rice, but I only want what Talol cooked.

Po eexaa mù nTalol-ku xù-ra-ci.

po e-xaa mù₁ n = Talol =ku t₁ xù -ra =ci
 1.SG EGO-want rice ATTR= NAME =ERG cook -RA =CMP

“I want the rice that Talol cooked.”

- (14)
- Context:*
- There’s only 1 pot of rice. Talol cooked it, and I want it.

Po eexaa mù nTalol xù-ci.

po e-xaa mù n = Talol xù =ci
 1.SG EGO-want rice ATTR= NAME cook =CMPL

“I want the rice, which Talol cooked.”

In sentence 13, the speaker says that the rice they want is specifically the rice that Talol cooked, whereas in sentence 14 the identity of the rice is already established, and the speaker is merely adding information about who cooked it. The fact that Talol is marked as ergative in 13 but not in 14 is evidence that the first is a gapped clause and the second is not. Some P must be present to get ergative case assigned to the A. In this case, that’s the trace of *mù*, which was extracted to form the clause.

Distribution of the *-ra* Suffix

When the object of a verb is topicalized or focused, *-ra*² usually occurs on the verb, whether the object is a P or an E. This also occurs when you front part of the noun phrase of an object.

- (15)
- Mù ro, nki iimnraa-kii.**

mù ro nki iim-ra =ki
 rice TOP.ACC 3 eat -RA =DEL

“As for the rice, they ate some of it.”

²The suffix’s default form is *-ra*, but it can also surface as *-r* after vowels and *-nraa* after nasal consonants or oral consonants following nasal vowels. For most speakers it’s still *-ra* after vowels for monomoraic stems.

(16) **Gatè a, npo mxaar go.**

gatè a npo m-xaa -ra go
termite TOP 1.PL NEG-*want* -RA DP

“That brat isn’t the one we want.”

However, it never occurs when topicalizing first- or second-person pronouns. For many speakers it is optional for third person pronouns and personal names.

(17) **Xitra ro, po odèl vovo-ci.**

Xitra ro po o-dèl vo ~ vo =ci
NAME TOP.ACC 1.SG POSS-*friend* RDP ~ *see* =CMPL

“As for Xitra, my friend has found her.”

(18) **We, po ro, ñùùmñùùm eetee nol!**

we po ro ñùùm ~ ñùùm e-tee nol
DP 1.SG TOP.ACC *cat* ~DIM EGO-*look.at* *try*

“Wow, the kitten was looking for *me!*”

When adverbs are topicalized, **-ra** can appear or not appear.

(19) **Lorjè a, npoku xi ee’iimnraa.**

lorjè a npo =ku xi e-iim-ra
morning TOP 1.PL =ERG *thing* EGO-*eat* -RA

“This morning, we ate something.”

(20) **Hak ga a, xèlù-ku nroom imee towoon.**

hak ga a xèlù =ku nroom npa imee towoon
every day.before TOP *cook* =ERG *need* *have* *dried.noodles* *hang*

“The night before every day, the cook has to hang noodles to dry.” (AN-COOK)

The copula and existential verbs cannot take **-ra**.

(21) **Lorjè a, npoku xi niim wo.**

lorjè a npo =ku xi n=iim wo
morning TOP 1.PL =ERG *thing* ATTR = *eat* *not.have*

“This morning, we didn’t eat anything.”

(22) ***Lorjè a, npoku xi niim wor.**

lorjè a npo =ku xi n=iim wo-ra
morning TOP 1.PL =ERG *thing* ATTR = *eat* *not.have* -RA

Intended: “This morning, we didn’t eat anything.”

The first finite verb of a relative clause often takes **-ra**. All relative clauses with **-ra** are restrictive, but not all restrictive clauses have **-ra**.

(23) **Nkiku ntama npo evo kixi-ci.**

nki =ku ntama n=po e-vo kixi =ci
 3 =ERG story ATTR=1.SG EGO-believe tell.story =CMPL
 “He told a story, which I believe.”

(24) **Nkiku ntama npo evor kixi-ci.**

nki =ku ntama n=po e-vo -ra kixi =ci
 3 =ERG story ATTR=1.SG EGO-believe -RA tell.story =CMPL
 “He told the story that I believe.”

In some SVCs, only the first verb is marked with **-ra**, but in others, multiple verbs can be marked.

(25) **Xuu a, poku nle etriyèr soo.**

xuu a po =ku nle e-triyè -ra soo
 banana TOP 1.SG =ERG 2 EGO-steal.from -RA take
 “The banana, I stole from you.”

(26) **Ntama a, poku nle enrar klèrar.**

ntama a po =ku nle e-nra -ra klèra -ra
 news TOP 1.SG =ERG 2 EGO-give -RA hear -RA
 “The news, I told you.”

Recently an additional context was reported in which **-ra** occurs. It occurs when you topicalize or focus the subjects of certain intransitive verbs, but not others. These new data contradicted past descriptions of **-ra**, prompting the research that lead to this paper.

(27) **Talol a, nlai-jè jè koofa npe.**

talol a nlai =jè jè koofa npe
 NAME TOP stay =DUR in bed in
 “Talol is staying in bed.”

(28) **Lela a, priinraa-toon rùlùù.**

lela a prii -ra =tol rùlùù
 NAME TOP sleep -RA =PRSP IDEO:groggy
 “Lela is about to fall asleep.”

Past Description of **-ra**

The first description of Anroo treated **-ra** as an ‘inverse voice’ marker. They observed that it occurred when something other than the subject was put in a discourse-prominent position. Since subjects are more likely to be high on the animacy hierarchy and objects and adjuncts are more likely to be low on the hierarchy, topicalization of a non-subject tends to mean that the most animate constituent is not the most central or topical one. It was also observed that **-ra** didn’t occur when you fronted highly animate non-subjects such as personal pronouns or proper nouns.

However, a description of **-ra** as an inverse marker is incomplete. If it were purely an inverse marker, you could expect it to occur whenever the object is highly animate and the subject is not. But this is not what we see.

(29) **Noolkaa-kuu po entau kaxùnta.**

noolkaa =ku po e-ntau kaxùnta
 wave =ERG 1.SG EGO-*hit* IDEO:*rough.sea*

“The waves crashed into me.”

Additionally, framing **-ra** purely in the context of a mismatch in ordering between the most animate and most salient participants only makes sense in contexts where multiple orderings are possible. With a single participant, no such mismatch is possible. This predicts that **-ra** will never occur with intransitive verbs, which is shown to be false in example 28. Therefore **-ra** can’t be explained simply as a direct-inverse marker.

A later treatment of Anroo describes **-ra** as a marker of agreement with the topicalization of certain elements, comparing it to *kakari-musubi*, a process in some Japonic languages where focusing triggers a special form of verb agreement. This raises the question of why it would occur in certain relative clauses. They explain this by proposing that the head of a relative clause must first move to a topic position inside the relative clause, trigger agreement, and then move again out into the matrix clause.

(30) **Po eexaa mù nTalol-ku xùra-ci.**

po e-xaa mù₁ n = [TOP t₁] Talol =ku t₁ xù -ra =ci
 1.SG EGO-*want* *rice* ATTR= NAME =ERG *cook* -RA =CMP
 ↑—————|↑—————|

“I want the rice that Talol cooked.”

They suggest that in restrictive relative clauses the head starts out inside the clause and moves to the topic position before moving out, whereas in non-restrictive relative clauses, the head starts out already outside of the clause. This matches the observation that gapped relative clauses are always restrictive and would explain the distribution of **-ra** in these two clause types.

This analysis is not without problems, however. It can’t predict which SVCs require double-marking and which do not allow it. It also doesn’t explain why certain intransitive verbs take **-ra** but not others. This incomplete model motivates further investigation into **-ra**.

A New Take on **-ra**

Topicalization, focusing, and relativization involve movement of the relevant prominent constituent. The fact that **-ra** appears in gapped relative clauses and when transitive verbs’ objects are topicalized suggests that it coocurs with movement. More specifically, since **-ra** seems to appear with operations on objects and certain adjuncts, which are in the verb phrase (VP), but not on agents, which are not in the VP, I suggest that **-ra** marks movement out of the VP.

I’ve already given examples of cases where you get **-ra** after topicalizing or focusing objects in straightforward APV or SVE sentences, so I’m going to focus on some of the less straightforward cases.

Relative Clauses

Anroo relative clauses may be gapped or not. Examples like 13 and 14 show that all gapped relative clauses are restrictive. The suffix *-ra* always occurs with gapped restrictive relatives of non-subjects, but never occurs with their corresponding non-restrictive clauses. This is because the former are formed by moving the head of the relative clause out of the VP, but the latter involve no movement, because the head doesn't start in the VP. Following this analysis, pronouns in relative clauses that corefer to the clause's head are not resumptive pronouns left behind after the head moves, but simply regular pronouns. When resumption competes with gapping, it always has a non-restrictive reading, suggesting that it behaves more like non-gapped relative clauses than gapped ones. Verbs in clauses with resumption do not take *-ra*.

(31) **Po eexaa mù nTalol-ku xù-ra-ci.**

po e-xaa mù₁ n= Talol =ku [VP t₁ xù -ra =ci]
 1.SG EGO-want rice ATTR= NAME =ERG cook -RA =CMP
 ↑—————↓

“I want the rice that Talol cooked.”

(32) **Po eexaa mù nTalol xù-ci.**

po e-xaa mù n= Talol [VP xù =ci]
 1.SG EGO-want rice ATTR= NAME cook =CMPL

“I want the rice, which Talol cooked.”

(33) **Po eexaa mù nTalol-ku nki xù-ci.**

po e-xaa mù₁ n= Talol =ku [VP nki₁ xù =ci]
 1.SG EGO-want rice ATTR= NAME =ERG 3 cook =CMP

“I want the rice, which Talol cooked.”

It's easy to see gapping in relative clauses when it is the S, A, or P being gapped, but it is less clear when it is the E or an adjunct, since unlike S or A, they aren't obligatory, and unlike P they don't trigger marking elsewhere. However, they exhibit a similar pattern of alternation between restrictive and non-restrictive relative clauses.

(34) **Nkiku ntama npo vo kixi-ci.**

nki=ku ntama n= po [VP e- vo] kixi =ci
 3 =ERG story ATTR= 1.SG EGO-believe tell.story =CMPL

“He told a story, which I believe.”

(35) **Nkiku ntama npo vor kixi-ci.**

nki=ku ntama₁ n= po [VP e- vo -ra t₁] kixi =ci
 3 =ERG story ATTR= 1.SG EGO-believe -RA tell.story =CMPL
 ↑—————↓

“He told the story that I believe.”

Overtly, *-ra* is the only marker that such a relative clause is restrictive. Earlier description of Anroo suggested that *-ra* might itself be marking the clauses as restrictive, which would

explain why it cooccurs with gapped relative clauses. However, it's simpler to say that sentences like 31 *are* gapped relative clauses with the same structure as the examples above, and that *-ra* has one consistent role: marking movement out of VP.

Multiple Verb Constructions

If we think that *-ra* marks movement out of VP, then it might be interesting to see whether it shows up in other constructions where a constituent might move out of some VP. In the first section, I noted that some SVCs get double-marked with *-ra*, but others don't. I'll argue that in spite of the surface similarities of sentences 36, 37, and 38, there are really three underlying syntactic structures, some involving extraction from one VP and some involving extraction from two VPs. These predict whether the second verb in the construction gets marked with *-ra* or not.

(36) **Xuu a, poku nle etriyèr soo(r).**

[_{TOP} xuu] ₁	a	po	=ku	[_{VP} nle	e- triyè	-ra	[_{VP?} soo -(ra) t ₁]]
<i>banana</i>	TOP	1.SG =ERG	2	EGO- <i>steal.from</i> -RA	<i>take</i> -RA		
↑							

“The banana, I stole from you.”

(37) **Ntama a, poku nle enrar klèra(r).**

[_{TOP} ntama] ₁	a	po	=ku	[_{VP} nle	e- nra-ra	[_{VP?} klèra -(ra) t ₁]]
<i>news</i>	TOP	1.SG =ERG	2	EGO- <i>give</i> -RA	<i>hear</i> -RA	
↑						

“The news, I told you.”

(38) **Ha m a, poku nle evor cùl(ra).**

[_{TOP} ha m] ₁	a	po	=ku	[_{VP} nle	e- vo -ra	[_{VP?} cùl -(ra) t ₁]]
<i>big event</i>	TOP	1.SG =ERG	2	EGO- <i>see</i> -RA	<i>go</i> -RA	
↑						

“The whole story, I believe you [about].”

To test the hypothesis that a verb gets marked with *-ra* when something A'-moves out of the VP it heads, we want to figure out where exactly the VPs are and watch what happens when we extract something from them. Let's take a look at each sentence's unmarked equivalent, where there's no topicalization to confound things, and figure out whether the multiple verb constructions in each one are contain a single VP or multiple.

We can start with sentence 36, which has an asymmetrical SVC with the major verb *triyè* 'to steal from' and the minor verb *soo* 'to take.' The verb *soo* is used to introduce an additional argument, in this case the thing being taken.

(39) **Poku nle etriyèr soo xuu.**

po	=ku	nle	e- triyè	soo	xuu
1.SG =ERG	2	EGO- <i>steal.from</i>	<i>take</i>	<i>banana</i>	

“I stole the banana from you.”

Anroo sometimes allows topicalization of verbs, commonly in questions. This is realized either by topicalizing the entire verb phrase or by copying the verb. For bipartite verbs or

lexicalized symmetrical SVCs, only the first word is copied. It's possible to topicalize *triyè*, but it's impossible to topicalize *soo* here.

(40) **Triyè a, poku nle etriyè soo xuu?**

triyè a po =ku nle e-triyè soo xuu
steal TOP 1.SG=ERG 2 EGO-steal.from take banana

“(As for stealing,) did I steal the banana from you?”

(41) ***Soo a, poku nle etriyè soo xuu?**

soo a po =ku nle e-triyè take banana
take TOP 1.SG=ERG 2 EGO-steal.from take banana

Intended: “As for taking, did I steal the banana from you?”

(42) ***Soo xuu a, poku nle etriyè?**

soo xuu a po =ku nle e-triyè
take banana TOP 1.SG=ERG 2 EGO-steal.from

Intended: “As for taking the banana, did I steal it from you?”

It's also impossible to negate the two verbs separately. Only *triyè* can be marked for negation, which is sentential negation.

(43) **Poku nle metriyè soo xuu.**

po =ku nle m- e-triyè soo xuu
1.SG=ERG 2 NEG-EGO-steal.from take banana

“I didn't steal the banana from you.”

(44) ***Poku nle etriyè msoo xuu.**

po =ku nle e-triyè m-soo xuu
1.SG=ERG 2 EGO-steal.from NEG-take banana

Intended: “I stole the banana not from you.”

Only inflectional material can come between the two verbs, not adverbs or other lexical material.

(45) **Poku nle etriyè-tol soo xuu.**

po =ku nle e-triyè =tol soo xuu
1.SG=ERG 2 EGO-steal.from=PRSP take banana

“I will steal the banana from you.”

(46) ***Poku nle etriyè ga soo xuu.**

po =ku nle e-triyè ga soo xuu
1.SG=ERG 2 EGO-steal.from day.before take banana

Intended: “I stole the banana from you yesterday.”

The verbs can't be separately negated, can't take separate aspect marking, can't be separated by any other words, and can't be topicalized separately. The two verbs behave for all intents and purposes as two parts of a compound predicate. As a single predicate, they comprise a single VP, so we expect to see **-ra** only appear once, on the first verb. That matches what we see not only in sentence 47, but in other asymmetrical SVCs of this type.

(47) **Xuu a, poku nle etriyèr soo.**

[_{TOP} xuu]₁ a po =ku [_{VP} nle e- triyè -ra soo -ra t₁]
banana TOP 1.SG =ERG 2 EGO-steal.from -RA take -RA

“The banana, I stole from you.”

(48) **Hal riye a, nkiku taso cika loom.**

[_{TOP} hal riye]₁ a nki =ku [_{VP} taso cika -ra loom t₁]
sharp knife TOP 3 =ERG cord cut -RA hold

“With the sharp knife she cut the cord.”

Sentence 37 contains another productive SVC construction, the causative introduced with **nra** ‘to give’. You can compare sentence 37 with the following sentence, with no extraction to complicate things.

(49) **Poku nle enra klèra ntama.**

po =ku nle e- nra klèra ntama
 1.SG =ERG 2 EGO- give hear news

“I told you the news.”

Similarly to in the last construction, the second verb in a causative construction can't receive independent negation or aspect marking.³

(50) **Poku nle menra-tol klèra ntama.**

po =ku nle m- e- nra =tol klèra ntama
 1.SG =ERG 2 NEG- EGO- give =PRSP hear news

“I am not going to tell you the news.”

(51) ***Poku nle enra mklèra ntama.**

po =ku nle e- nra m- klèra ntama
 1.SG =ERG 2 EGO- give NEG- hear news

Intended: “I made you not hear the news.”

(52) ***Poku nle enra klèra-tol ntama.**

po =ku nle e- nra klèra =tol ntama
 1.SG =ERG 2 EGO- give hear =PRSP news

Intended: “I made you be about to hear the news.”

³One exception to this is the seemingly lexicalized expression **nra mnar** ‘to break something artificial,’ lit. ‘give NEG-repair,’ but this pattern isn't productive.

However, unlike the last construction, it is possible to topicalize the second verb and its object. This suggests that the second verb is in a phrase embedded under *nra* which is smaller than negation and aspect, but at least as large as VP.

(53) **Waam ovètu a, nkiku po nrar waamnraa npamaga.**

waam o-vètu a nki=ku po nra-ra npamaga
drink POSS-word TOP 3 =ERG 1.SG *give*-RA IDEO:*deceive*

“As for believing his lies, he made me do it.”

If the secondary verb heads an embedded VP, then we’d expect to be able to put other things like adverbs or adjuncts in that VP.

(54) **Lela-ku po nra cika taso xo hal riyu.**

Lela =ku po nra cika taso xo hal riyu -u
 NAME=ERG 1.SG *give* *cut* *cord* *with* *sharp* *knife*-OBL

“Lela made me cut the cord with a sharp knife.”

Like in the English translation, there’s some ambiguity in sentence 54 with what the adjunct is modifying. Did I use the sharp knife to cut the cord? Or did Lela use the sharp knife to make me do it? In the sense where my cord cutting was done with the knife, we’d expect for the prepositional phrase to adjoin to the inner VP headed by *cika* ‘to cut’. On the other hand, if the causing was done with the knife, then we’d expect it to be outside of the *cika* phrase, adjoining instead to the VP headed by the causative verb *nra*. If it’s moving out of a different place in each version of sentence, then topicalizing the prepositional phrase should distinguish the two. We can see that it does!

(55) *Context:* Lela was holding a sharp knife and threatened she would use it if I didn’t cut the cord.

Hal riyu a xo, Lela-ku po nrar cika taso

hal riyu -u a xo Lela =ku [_{VP} po nra ra [_{VP} cika taso] t]
sharp *knife*-OBL TOP *with* NAME=ERG 1.SG *give* RA *cut* *cord*

“With the sharp knife, Lela made me cut the cord.”

(56) *Context:* Lela asked me to do her a favor and to use the sharp knife I was holding to cut the cord.

Hal riyu a xo, Lela-ku po nrar cika taso

hal riyu -u a xo Lela =ku [_{VP} po nra-ra [_{VP} cika-ra taso
sharp *knife*-OBL TOP *with* NAME=ERG 1.SG *give*-RA *cut*-RA *cord*
 t]]

“With the sharp knife, Lela made me cut the cord.”

This suggests that unlike the flat SVC construction in sentence 36, the causative construction in sentences like 37 consists of a VP embedded in another VP and that extraction from the

outer VP only results in one verb getting *-ra*, but extraction from the inner VP results in both getting marked.⁴

(57) **Ntama a, poku nle enrar klèrar.**

[_{TOP} ntama]₁ a po =ku [_{VP} nle e-nra -ra [_{VP} klèra -ra t₁]]
news TOP 1.SG =ERG 2 EGO-give -RA hear -RA

“The news, I told you.”

Next I’ll look back to sentence 38. Without topicalization, it corresponds to the following sentence.

(58) **Poku nle evo cùl ha m.**

po =ku nle e-vo cùl ha m
 1.SG =ERG 2 EGO-see go big event

“I believe you about the whole thing.”

The verb construction in 38 has the same surface structure as the ones in sentences 36 and 37, and is pronounced with the same intonation, but it has a different underlying structure. When I first checked negation with my consultants, they judged that you could negate *vo* but not *cùl*.

(59) **Poku nle mevo cùl ha m.**

po =ku nle m- e-vo cùl ha m
 1.SG =ERG 2 NEG-EGO-see go big event

“I don’t believe you about the whole thing.”

(60) ***Poku nle evo mcùl ha m.**

po =ku nle e-vo m-cùl ha m
 1.SG =ERG 2 EGO-see NEG-go big event

Intended: “I don’t believe you about the whole thing.”

One of my consultants suggested the sentence *poku nle evo mè cùl ha m*. Instead of the negative prefix *m-* usually used for verbal negation, she suggested the negative complementizer *mè*. This sentence doesn’t mean the same thing as what I was trying to say in sentence 60 though. It means something closer to “I believe you that the whole thing didn’t happen.”

I found that aspect marking of the second verb was possible too.

(61) **Poku nle evo cùl-tol ha m.**

po =ku nle e-vo cùl=tol ha m
 1.SG =ERG 2 EGO-see go =PRSP big event

“I believe you the whole thing is about to happen.”

⁴Several speakers disagreed specifically about double-marking in the expression *nra klèra* ‘to tell,’ lit. ‘to make hear’ but agreed for other arbitrary causatives including 55 and 56, which suggests that *nra klèra* may be lexicalized as a single three-place predicate for some speakers.

The possibility of separate aspect marking and negation using *mè* suggests that there's not only a VP under *vo*, but an entire CP. The underlying structure here isn't an SVC, but an idiom containing a complement clause embedded under a verb. Inside the complement clause, there has to be another VP, so I'd predict that both verbs in sentence 37 get marked with *-ra*. That matches what we see.

(62) **Ha m a, poku nle evor cùlra.**

[_{TOP} ha m]₁ a po =ku [_{VP} nle e-vo -ra ∅ [_{VP} cùl-ra t₁]]
big event TOP 1.SG =ERG 2 EGO-see -RA CMP go-RA

“The whole story, I believe you [about].”

Unlike the previous analyses of *-ra*, this is able to predict which multiple verb constructions have double marking and which have single marking.

Treatment of Intransitives

The observation that led to this study was that certain intransitive verbs consistently take *-ra* when their subjects are moved, and others consistently do not. The idea that *-ra* marks extraction from the VP would predict that it will occur when you move the subject of an unaccusative verb, but not of an unergative verb.⁵

There are a couple ways to check if an intransitive verb is unergative or unaccusative in Anroo. Unergative verbs often allow cognate objects, for example the verb *enlo* ‘to sing, to perform,’ generally intransitive, can take the cognate object *renlo* ‘a song.’ Unaccusative verbs, on the other hand, can't take cognate objects.

(63) **Nkiku hùù renlo enlo-jè.**

nki =ku hùù renlo enlo =jè
 3 =ERG *pleasant* *song* *sing* =DUR

“He was singing a lovely song.”

(64) ***Nkiku hojè prii prii-cii.**

nki =ku hojè prii prii =ci
 3 =ERG *gushing* *sleep* *sleep* =CMPL

Intended: “They slept a furious sleep.”

(65) ***Sapi-ku ozu amaa hak amaa-cii.**

sapi =ku ozu amaa hak amaa =ci
brigade =ERG *bad* *death* *all* *die* =CMPL

Intended: “The whole brigade died terrible deaths.”

Another test involves voice morphology. Anroo has a suffix *-hi*, which makes autobenefactive or automalefactive passives when applied to transitive verbs.

⁵Unaccusative verbs are intransitive verbs whose single argument patterns like a patient and unergative verbs are those whose single argument patterns like an agent.

(66) **Nkepe lico clitohi-ci.**

nkepe lico clito -hi =ci
child teeth move -ATB =CMPL

“The kid got itself bitten.”

(5MOYD #1238)

You can apply **-hi** to unaccusative intransitive verbs to make autocausative verbs like this, but you can’t apply it to unergative verbs. (Interestingly, verbs marked with **-hi** are always treated as unergative themselves.)

(67) **Loom azo a, klèlor amaahii-toon.**

loom azo a klèlor amaa -hi =tol
hold do.so TOP soldier die -ATB =PRSP

“If he keeps going, the soldier’s going to get himself killed.”

(68) ***Noinpaa enlohi ga.**

noinpaa enlo -hi ga
clown sing -ATB day.before

Intended: “The clown got himself to sing/perform yesterday.”

Tests like these show that Anroo does distinguish between unaccusative and unergative verbs. It turns out that the intransitive verbs that consistently take **-ra** match those that the other tests pick out as unaccusative. Supposing that **-ra** marks movement out of the VP lets you predict which intransitive verbs take **-ra** and which don’t.

(69) **Klèlor nao a, amaanraa-cii.**

klèlor n=ao a amaa -ra =ci
soldier ATTR=there TOP die -RA =CMPL

“That soldier, he died.”

(70) **Noinpaa nao a, enlo-ci.**

noinpaa n=ao a enlo =ci
clown ATTR=there TOP sing =CMPL

“That clown, he sang.”

Conclusion

In this paper, I suggest a new analysis of the Anroo suffix **-ra**. I proposed that it marks extraction from the VP. This improves on previous analyses in predicting which multiple verb constructions are double marked and which intransitive verbs take **-ra** when their subject is extracted, while continuing to account for alternations present in relative clauses.

Several things remain to be seen. Topicalized adverbs may or may not take **-ra**, which I explain by saying that they can be extracted from the VP or start out directly in topic position. I’m curious what tests there could be to distinguish between extracted and high-generated adverbs and see whether they match sentences collected with and without **-ra**. In some languages, the subjects of unaccusative verbs can be shown to have raised out of the

VP to a subject position. If this is the case in Anroo, why don't plain intransitive verbs have **-ra**? If this is not the case, how could I show that it is not the case? Last, this proposal leaves the fact that **-ra** doesn't occur with extracted SAPs or proper nouns as an exception to the rule. Is there any way to unify that with the proposed meaning, or is it best to just posit that since SAPs and proper nouns are more likely to be topical, there's less functional pressure to mark their extraction? Work is already ongoing to find answers to these questions and learn more about voice morphology in Anroo.

16

Case Marking Paradigms in Tabesj

by Boomfruit

A Diachronic Analysis

Tabesj is a naturalistic language that I started working on in February of 2021 with a few goals: ergative-absolutive alignment, strong and stubborn head-finality, lots of syllabic consonants (blame the Yiddish music I was listening to at the time, or at least my perception of it), and extensive phonemic palatalization and labialization. For this article, I'll focus mainly on the first point and a bit on the second. Namely, how the ergative-absolutive alignment came to be, how it led to the standard case marking paradigm, and how other paradigms came to be and in what situations the alignment can change.

Origin of Tabesj Alignment

Tabesj is a (generally) Subject-Object-Verb language with split-ergative alignment, whereas scholars agree that the ancestor of Tabesj, called Tesjṇ Tabesj (hereafter referred to as TT), was a Subject-Verb-Object language with nominative-accusative alignment. The most common explanation of Tabesj alignment is from a reanalysis of the passive construction.

The most common way of forming simple transitive sentences in TT was SVO with a marked accusative, as in (1).

- (1) **Zape kasi axhov.** Tesjṇ Tabesj
zape kasi axho =v
man eat food =ACC
“The man eats the food.”

The accusative marker is **-v**, still used only in sentences with Active Discourse Participants as discussed below, and in certain verbs with incorporated objects fossilized in the accusative case, like **emosamy** ‘to drum/to play a drum’ (compare **sam** ‘a drum’).

TT also had a passive construction, which promoted the former object of a transitive verb to the nominative subject, most often leaving the former subject demoted to an oblique position as in (2) and sometimes leaving it absent. The most common way to mark the oblique was through a marker that mainly had ablative connotations, **naka** (from the word for ‘to come.’) In TT, the standard position for obliques was at the end of sentences. There is general agreement that the current finite verb marker **-ta** used to be the passivizer in TT.

(2) **Axho kasi ta naka zape.**

Tesjñ Tabesj

axho kasi ta naka sabe
food.NOM eat PSV from man

“The food is eaten by the man.”

The passive construction came to be used more and more often, to the point where it replaced the “standard” construction, which eventually fell out of use. Therefore, it was no longer understood to have a passive meaning.

The former passive marker was still used, and just thought of as part of the verb. We can say that the standard word order was OVS, and since objects of transitive verbs were unmarked, just like the sole arguments of intransitive verbs, we can begin to call that the absolutive, and to say that there was ergative-absolutive alignment at this stage, at least for simple transitive sentences, like in (3). The ablative/instrumental marker **naka** reduced to **na**, and naturally took on an ergative meaning in addition to its other uses.

(3) **Axo kateta na sabe.**

Early Modern Tabesj

axo kate -ta na sabe
food.ABS eat -V ERG man

“The man eats the food.”

A couple general trends conspired to change the way sentences were ordered. First, Tabesj was always generally head-final, but at this stage, an even stronger preference among speakers for head-finality emerged. Thus, the ergative use of the instrumental/ablative marker became a nominal case clitic **ra** that followed the ergative clause, eventually shortening to **-r**. Additionally, ergative obliques, considered background information, most often became fronted in sentences, while other obliques, like locatives and instrumentals, took up position immediately before the verb. Word order in simple transitive sentences is now SOV, as in (4). The **-ta** transitive verbal marker took on its modern analysis as a finite verb marker.

(4) **Saber axo kateta.**

Modern Tabesj

sabe =r axo kate -ta
man =ERG food.ABS eat -FIN

“The man eats the food.”

Overview of Case Marking Paradigms and Their Triggers

SOV & Ergative-Absolutive—Standard Transitive Verbs

We have already discussed in depth the origin of Tabesj standard alignment. We can call this the “standard” structure for a few reasons. It is considered the “default” structure; it is by far the most common structure in speech, and if no other structure applies/is deemed necessary, it is the one fallen back upon. Other structures have changed by analogy to mimic this structure due to its assumed neutrality.

SOV & Dative-Absolutive—Sense Verbs

Verbs of this paradigm largely concern sense, perception, and experience, and generally come from one of three sources:

1. Verbal adjectives
2. Adverbial/copular constructions
3. Involuntary sense verbs derived from base sense verbs

Notice that the dative subject, which was originally a dative oblique in a sentence-final position, was fronted by analogy in the same way the ergative subject was fronted in the standard transitive construction discussed above.

In the case of verbal adjective sources, they have undergone a reanalysis to behave as transitive verbs. Compare a simple predicative usage of *anra* ‘to be lovely’ in (5) with the verbal usage “to love” in (6)—note the addition by analogy of the finite verb marker *FIN*.

(5) **Enka me anrā.**

enka me anrā
night sky be.lovely

“The night sky is lovely.”

(6) **Bram enka me anrāsa.**

bṛ =m enka me anrā -ta
woman =DAT night sky.ABS love -FIN

“The woman loves the night sky.”

Or: “The woman is made to love the night sky.”

Or: “The night sky is lovely to the woman.”

In the case of adverbial/copular constructions, much the same has happened, though with perhaps a less radical altering of the exact semantics of the original use. Compare the copular usage of *guoḷ* ‘to be like (something)’ in (7) with the transitive verbal usage ‘to perceive as’ in (8):

(7) **Atue niēbagoḷ.**

atue niēba -guo -ḷ
rock fish -seem -COP

“The rock is fish-like.”

(8) **Setom atue niēbagoa.**

seto =m atue niēba - guo - a
 boy =DAT rock.ABS fish -perceive -COP

“The boy perceives the rock as a fish.”

Or: “The rock is fish-like to the boy.”

Finally, the third case concerns mostly the so-called **tol** verbs or ‘*be made to*’ verbs, which are derived from normal sense verbs to connote a lack of volition. These are what would be translated into English as “see, hear, smell, taste, and feel,” as opposed to “look at, listen to, (try to) smell/sniff, (try to) taste/sample, touch.” Compare the voluntary use of **te** ‘*to look at, look for*’ in (9)—note the standard alignment—with the involuntary use ‘*to (happen to) see*’ in (10).

(9) **Jemkar qadie teta.**

jemka =r qadie te -ta
 girl =ERG dog.ABS look -FIN

“The girl looks at the dog.”

(10) **Jemkam qadie tolteta.**

jemka =m qadie tol -te -ta
 girl =DAT dog.ABS INV -see -FIN

“The girl sees the dog.”

Or: “The girl is made to see the dog.”

Verbs that trigger this paradigm constitute an open class. Loanwords regularly pattern as sense/emotion/experience verbs if they align with the semantic space speakers assign to the existing class. Consider the verb **eko** ‘*to believe in, to side with*’ in (11), loaned from another conlang of mine, Iekos.

(11) **Ma vokos ekota.**

ma vokos eko -ta
 1.DAT general believe.in -FIN

“I believe in the general.”

Or: “I am made to believe in the general.”

SOV & ... A Big Mess—Reflexive and Associated Constructions

The case marking here is a bit tricky because of a lot of overlap in meanings that come from one specific morpheme, **bia**. Specifically, it has its original reflexive meaning as well as emphatic, antipassive voice, and progressive aspect meanings.

As Tabesj changed, ergative subjects could be, and regularly were, dropped when used with transitive verbs. Absolutive arguments were thought of and analyzed as the default or necessary argument.

First, the marker **bia** was used with transitive verbs to signify that the originator of an action was the same as the recipient of that action. This is the reflexive usage, as in (12).

(12) **E bia emosa.**

e bia emo -ta
3 REFL *hit* -FIN

“They hit themselves.”

Or: “They were self-hit.”

Speakers sometimes desired a way to emphasize the subject, however, and **bia** was naturally used for this purpose, as in (13). Interestingly, because of the original reflexive usage, speakers didn’t use the ergative case with the subject, because they were used to using **bia** with unmarked nouns. Additionally, speakers extended the use of **bia** to the subjects of intransitive verbs, like in (14).

(13) **E bia do emosa.**

e bia do emo -ta
3 REFL 3.OBV *hit* -FIN

“They (emphatic) hit the other one.”

Or: “They themselves hit the other one.”

(14) **E bia noquosa.**

e bia noquo -ta
3 REFL *sleep* -FIN

“They (emphatic) sleep.”

Or: “They themselves sleep.”

Then, since the ergative subject was being emphasized in this particular construction, the absolutive object could be dropped—quite rare in Tabesj! It was sometimes put into an oblique position with the dative (at first, after the verb, and then the stubborn head-finality pulled it back to before the verb). This gives us the antipassive construction which is distinguished from the emphatic construction only when there is an object used, as in (15). The antipassive construction is not used with intransitive verbs.

(15) **E bia dom emosa.**

e bia do -m emo -ta
3 REFL 3.OBV -DAT *hit* -FIN

“They (antipassive) hit the other one.”

Or: “They did hit at the other one.”

Finally, because of the ways in which the antipassive construction was often used, it came to also connote the progressive aspect, which then spread to be used with intransitive verbs.

Since the reflexive marker cannot occur in combination with any other case, the simplest and most plausible analysis of it in Modern Tabesj is as a case marker. Tabesj speakers simply call it the “reflexive case.” The following table illustrates the various uses of the case.

	Transitive	Intransitive
Reflexive	Subject/Object REFL	-
Emphatic	Subject REFL ; Object ABS	Subject REFL
Antipassive	Subject REFL; (Object DAT)	-
Progressive	Subject REFL ; (Object DAT)	Subject REFL

Table 1: Paradigms and Confluence of Meaning

Notice the ambiguity. With a transitive verb and a single argument in the reflexive case, the reflexive, antipassive, and progressive constructions are identical. With a transitive verb and one argument in reflexive and one in dative, the antipassive and progressive constructions are identical. Whereas with an intransitive verb and the single argument in reflexive, the emphatic and progressive constructions are identical.

Because of the incompatible case marking, sense verbs do not take on reflexive or associated uses. Instead, speakers employ periphrastic constructions, like using **ker**, the non-finite form of ‘make’ as an adverb to indicate the progressive.

SVO & Nominative-Accusative—Speech Act Participant Presence

One of the characteristics of TT was a heavy importance placed on animacy, sentience, autonomy, and volition, which had lexical, morphological, and syntactic manifestations. Almost all of the morphology surrounding animacy has been lost, and most of the syntax as well, but we still see a remnant of it in the fact that the presence of speech act participants (SAPs) (*i.e.* first and second person pronouns) triggers a different word order, SVO, and case marking paradigm, nominative-accusative, as in (16) and (17).

(16) **Kua qorq̄ puolka āgaov ter.**

kua qo -r̄q̄ puolka āgao =v ter
 2.NOM listen -PST yesterday music =ACC Q

“Did you listen to yesterday’s music?”

(17) **Tjo ŋ dōtax ŋ kate t̄rnav.**

tjo ŋ dōta =x ŋ kate t̄rna =v
 POSS 1 garden =LOC 1.NOM eat apple =ACC

“I eat (an) apple in my garden.”

In reality, this is simply the only construction in Tabesj that never changed from the way sentences were ordered and marked in TT. The high animacy of first and second person pronouns blocked sentences using them from being passivized as often as sentences without them. Thus it is one of the rare places where, for most speakers, the finite verb marker **ta** is not used, as it came from the passive marker once the passive construction was reanalyzed, as well as the only place we still see the accusative marker **-v**.

It may seem like this would be an often-used construction, but in fact it is quite rare for a couple reasons.

First, verbs that trigger the SVO nominative-accusative paradigm are of a closed, albeit large, class. Verbs formed by currently productive derivational processes, as well as verbs loaned from foreign languages, are not part of that class. Compare the verb **qo** ‘to listen’ in

(16) which triggers the paradigm, with a verbal construction derived from the same verb in (18), which doesn't. Also compare the older *kate* 'to eat' in (17) which triggers the paradigm, with the loaned verb *vesje* 'to plant, to sow' in (19), which doesn't.

(18) **Kuar puolka āgao javqosarq ter.**

Kua =r puolka āgao jav -qo -ta -rġ ter
 2 =ERG yesterday music.ABS be.in.resulting.state -listen -FIN -PST Q

"Did you feel different after listening to yesterday's music?"

(19) **Tjo η dōtax nar qexa vesjesa.**

tjo η dōta =x η=r qexa vesje-ta
 POSS 1 garden =LOC 1 =ERG potato.ABS plant -FIN

"I plant potato(es) in my garden."

Secondly, a general trend in Tabesj of using honorifics undermined the use of true first and second person pronouns. Honorifics align closely with a rigid caste system, and the caste identifiers can substitute for pronouns of any person in most contexts. Even though honorifics are currently able to function pronominally, they came etymologically from non-pronominal sources, and thus do not trigger this paradigm. Compare the examples in (16) and (17), which use second and first person pronouns and trigger the paradigm, with the examples in (21) and (20), which use honorific caste pronouns and don't.

(20) **Pñtuonar puolka āgao qorq ter.**

pñtuon=r puolka āgao qo -rġ ter
 HON.2 =ERG yesterday song.ABS listen -FIN Q

"Did you listen to yesterday's music?"

Or: "Did the honored one listen to yesterday's music?"

(21) **Tjo η dōtax esjtāsṛ qexa vesjesa.**

tjo η dōta =x esj-tās =r qexa vesje-ta
 POSS 1 garden =LOC 1 -HON =ERG potato.ABS plant -FIN

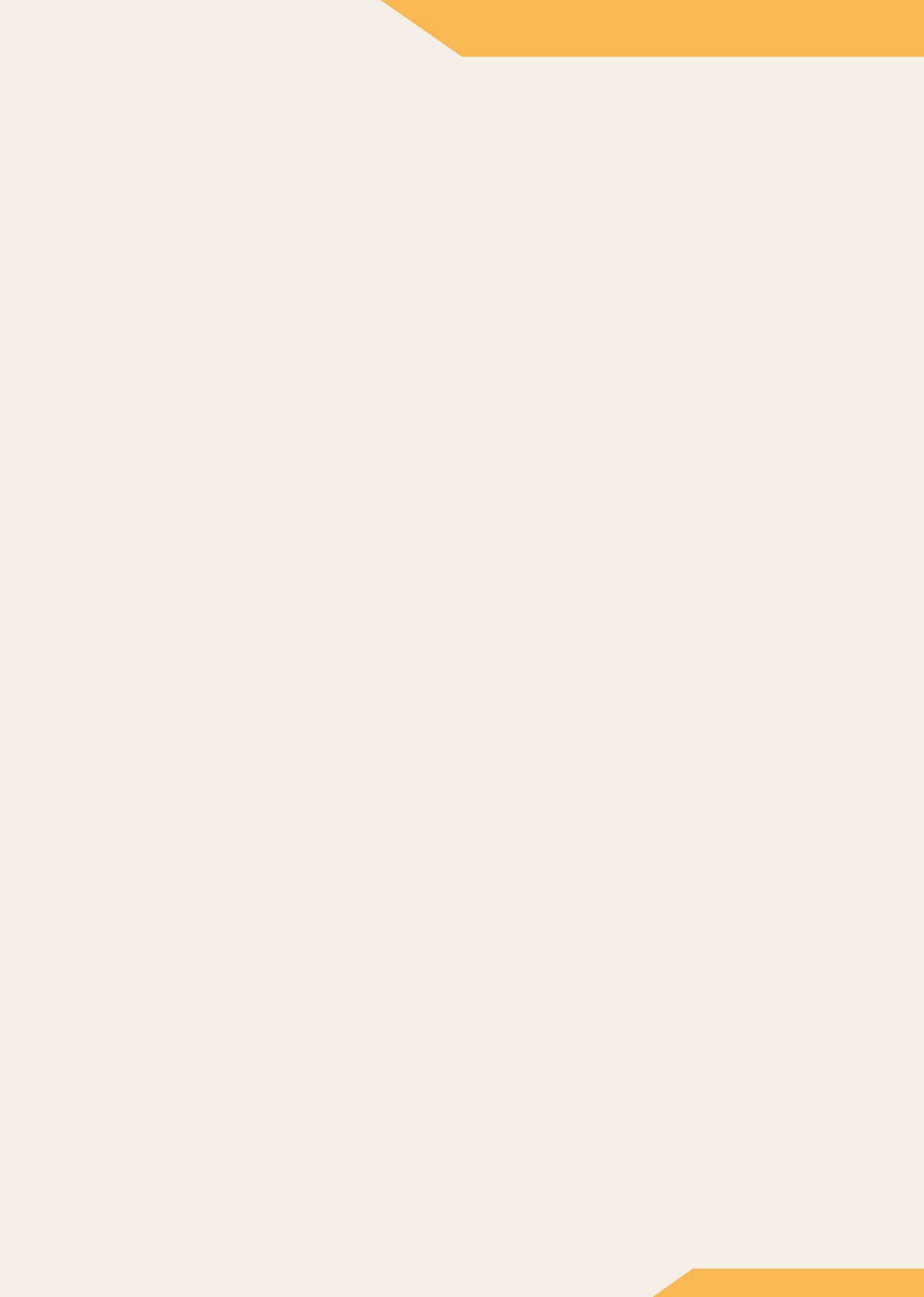
"I plant potato(es) in my garden."

When a sense verb has a SAP as an argument, word order remains SOV, because in all cases, the subject of a sense verb is considered to have low or no volition. On the other hand, a SAP *will* change the ordering of a reflexive construction, resulting in SVO with the subject in reflexive and the object in absolutive or dative.

Conclusion

My conlanging process is usually something along these lines: Get inspiration for a new language, begin work on that language, study linguistic topics that I didn't know too much about before, realize the work I've done is rendered unsatisfying by my new knowledge, start over with a new language. So Tabesj is destined to be just another in a long line of abandoned conlangs. Nevertheless, since it's my latest, I'm currently having a great time with it. I've learned a ton about ergative alignment and created what I *think* is a pleasingly baroque system of case marking, and what I *hope* is a naturalistic explanation of its origins.

Kua konṛ tāsā. Pae rases!—Thank you for reading. Until next time!



by Trailsend

When Morphosyntax is Weird

Hiding Waters features peculiar morphosyntactic behaviors that may be best analyzed without differentiating between nouns and verbs. This article explores constructions of varying complexity to see how they impact that analysis.

Hiding Waters is an *a priori artlang* - in particular, it is a *fictional language* created as part of a fictional setting — but it moonlights as something of an *engineered language* as well, where I play with the relationship between perception and language, and some far flung ideas about possibilities in morphosyntax. Particularly relevant to this issue of Segments, for many years I've been playing with what it would look like for *Hiding Waters* to lack a morphosyntactic distinction between nouns and verbs.

I want to slow down here to unpack precisely what I'm talking about, because the statement as I intend it is fairly strong.

In many conversations about noun/verb distinctions, what's being discussed are the *lexical categories* “noun” and “verb,” and questions about whether a particular language has them. The Salishan language family often comes up, as some have claimed (and others have disputed) that some Salishan languages have no lexical distinction between nouns and verbs.

This claim is, to greatly oversimplify, based on the observation that in many constructions in these languages, any content word may be used as either a predicate or as an argument. This differs from languages like English, where a certain family of lexical items (“nouns”) may only be used as arguments, while another family (“verbs”) may only be used as predicates. Those who contest the Salishan claim point out that if you look closely at more complex constructions, you will find places where indeed only certain lexical items may be used as the predicate, and these constructions can be used to differentiate between “noun” and “verb” lexical items.

This is not, however, the kind of distinction that I argue *Hiding Waters* lacks. The Salishan discussion orbits around the question of whether particular words can be *used as predicates*

or **used as arguments** in various constructions—which is a conversation we can only have because the morphosyntactic behavior of those constructions lets us identify which parts are being used as predicates and which parts are being used as arguments.

However, more than just a **lexical** noun/verb distinction, Hiding Waters makes no distinction in **morphosyntactic behavior** between nouns and verbs. There is no meaningful way, I argue, to look at a Hiding Waters sentence and say “Yes, you can see that *this* word is being used as the verb, and *this* word is being used as a noun.”

(This is undoubtedly a foolish endeavor, as no natural language to my knowledge works this way, and for good reason—it eliminates a massive possibility space for useful syntactic constructions. But when one has already decided to invent a language, something being a foolish endeavor is clearly not going to stop one.)

I should be clear that because my claim is about the morphosyntactic behavior of Hiding Waters, it is insufficient to talk about how I, or any of Hiding Waters’ fictional speakers, **think** about the language, or would choose to translate particular words into English. It’s not enough to say, “Well, I don’t think of that word as a noun, because it literally translates as ‘being-a-whatever’.” Rather, for my claim to work, it must be the case that any morphosyntactic analysis of Hiding Waters that **does** posit “noun” or “verb” roles must make arbitrary distinctions that don’t add meaningfully to the analysis. An analysis that posits no such differentiation must be the most elegant and effective description one can find.

Maybe it sounds funny to be talking about analyzing a conlang’s behavior the way we analyze that of a natural language. After all, as the language’s creator, don’t I have the final say in how the language works? I don’t think so. Or at least, not quite. In my view, my prerogative as creator is to be the authority on what sentences are and are not grammatical in Hiding Waters, and what those sentences mean (that is, in what situations they could be used, and what communicative function they would serve). In other words, as Hiding Waters’ creator, I get to **create data**. No one else gets to say, “Actually, in Hiding Waters, *this* is how you would say it.”

But once I’ve produced that data, I don’t get to say, by authorial fiat, what the best **analysis** of that data is. If someone finds a better description of what the language is doing than what I intended... then that’s the best description of how the language works. (Until I alter or add new data that makes the description no longer fit, of course.)

I **love** working this way. It means I am always breaking things, always having to think about other possible explanations. Always having to work out what kinds of evidence might prove or disprove this-or-that analysis. And doing all that, while finessing the data toward an absolutely buck-wild morphosyntactic analysis, while also trying to keep the language expressive and feasibly usable? It’s been just an entire bucket of fun.

So. With that groundwork laid, the aim of this article is to lay out some rudimentary evidence for Hiding Waters’ lack of a noun/verb distinction from simple constructions, and then, to investigate some more complicated constructions—namely, anaphoric references to phrases and clauses—and explore how they might challenge the “no noun/verb distinction” analysis.

Uniformity of predicate behavior in simple clauses

In my analysis of Hiding Waters, there is a single lexical category of semantically-heavy content words, which I call “predicates.” All predicates in a sentence have the same mor-

phological structure, and exhibit uniform syntactic behavior.

Consider this statement involving an action with both an agent and a patient:

(1) **xilhtuᅅguklkıq tulhᅅᅇuᅇa hulhlkijunaᅇwh**

xilht_q² < u -ᅅᅇ -u -k -lk-ı >
bitten LD.IND - PRED - A.LD - PFV - M - P.FOL

t_qa < u -lh -ᅅᅇ -u >
bear LD.IND - ESS - PRED - P.LD

h_naᅇwh < u -lh -lk-ı -j < u >>
cousin LD.IND - ESS - M - P.FOL - 1 LOC.LD

“A bear bit my cousin.”

lit. “the [dangerous animal] bit [him], the [dangerous animal] is a bear, [he] is my cousin”

A first-glance interpretation of this construction is that it is a straightforward transitive clause with VSO word order. However, as I’ll show below, it’s better understood as three serialized predicates, each providing further information about various members of a pool of referents.

The VSO basic word ordering is the easiest to refute. The order of predicates in a clause is determined by their relative “newsworthiness” (a term I’m borrowing from Marianne Mithun’s analysis of Cayuga, Coos, and Ngandi³): more newsworthy predicates come first, and less newsworthy predicates come later. A predicate is more newsworthy if it introduces a new topic, or if the speaker finds it surprising, or wishes to stress it. In (1), the most newsworthy piece of information is that someone was bitten by a dangerous animal. But any of the other five possible orderings of these constituents are just as likely; for example:

(2) **tulhᅅᅇuᅇa hulhlkijunaᅇwh xilhtuᅅguklkıq**

t_qa < u -lh -ᅅᅇ -u >
bear LD.IND - ESS - PRED - P.LD

h_naᅇwh < u -lh -lk-ı -j < u >>
cousin LD.IND - ESS - M - P.FOL - 1 LOC.LD

xilht_q < u -ᅅᅇ -u -k -lk-ı >
bitten LD.IND - PRED - A.LD - PFV - M - P.FOL

“A bear(!) bit my cousin(!)”

lit. “the [dangerous animal] is a bear, [he] is my cousin, the [dangerous animal] bit [him]”

In (2), the most newsworthy piece of information is that the thing that bit my cousin was a bear.

²An underscore _ in a root indicates the location where the < infix > will be inserted

³Mithun, M. (1992). “Is Basic Word Order Universal?” In D. Payne (Ed.), *Pragmatics of Word Order Flexibility* (pp. 15-62). Amsterdam/Philadelphia: John Benjamins Publishing Company.

(3) hulhkljunaùwh tulhṅuq̄a xilhtuṅuklk̄iḳ

h_naùwh < u -lh -lk-ì -j < u >>
cousin LD.IND-ESS-M-P.FOL-1 LOC.LD

t_q̄a < u -lh -ṅ -u >
bear LD.IND-ESS-PRED-P.LD

xilht_q̄ < u -ṅ -u -k -lk-ì >
bitten LD.IND-PRED-A.LD-PFV-M-P.FOL

“A bear(!) bit my cousin(!!)”

lit. “[he] is my cousin, the [dangerous animal] is a bear, the [dangerous animal] bit [him]”

In (3), the most newsworthy piece of information is that the person who got bitten by the bear was my cousin.

The semantic roles of the various players in the scene—that is, who did the biting, and who got bitten—are indicated not by placement within the clause, but via **classifier agreement**. Predicates may be marked with a classifier affix referencing an agent, and another classifier affix referencing a patient. The agent classifier of ‘*the [dangerous animal] bit [him]*’ (-ṅ- ‘*a competitive predator*’) is the same as the patient classifier of ‘*the [dangerous animal] is a bear,*’ while the patient classifier of the first predicate (-lk- ‘*a male animal or person*’) is the same as the patient classifier of ‘*[he] is my cousin*’ — thus, we know that the thing which is a bear is also the thing which did the biting, and the thing which is my cousin is also the thing that got bitten.

Agent and patient marking on any given predicate is always optional. If a particular root semantically requires an agent (or patient), the corresponding marking may still be omitted if the referent is unknown or irrelevant. This fact, combined with the ability to highlight certain constituents through newsworthiness marking, gives speakers the same channels of expressiveness that other languages might achieve through passive-voice structures — which means there are no active/passive voice alternations we can use to distinguish verb constituents from noun constituents.

(The details of the classifier system are not relevant to this article, but I will mention that the system is more flexible than what are typically called “classifier” systems in other languages. A great number of classifiers are available, and several are applicable to any given referent. Classifiers are assigned to referents via particular pragmatic structures as they enter the conversation, and these assignments can be chosen to avoid ambiguity. Thus, classifier references are usually sufficient to disambiguate who is doing what in the sentence.)

It is tempting here to say that perhaps these classifier affixes are Hiding Waters’ missing nouns, but it’s cumbersome to analyze them as anything other than bound morphemes. For sake of brevity I won’t include that argument here, but suffice it to say, they fail a host of constituency tests, such as being unexpandable into phrases.

One could argue that this classifier agreement is itself a form of subject/object marking. We could propose the following analysis:

The first (most newsworthy) predicate in a clause is the “verb.” The subsequent predicate whose patient agrees with the verb’s agent is the “subject,” and the subsequent predicate whose patient agrees with the verb’s patient is the “object.”

This analysis doesn't yield especially interesting results, however, and produces a lot of edge cases that have to be accounted for.

For example, subsequent predicates describing an agent or patient are never obligatory. Indeed, none of the predicates in (1) are obligatory:

(4) **xilhtuᅅguklkı̄q tulhᅅᅇuᅇa**

xilht_q < u -ᅅᅇ -u -k -lk-ı̄ >
bitten LD.IND - PRED - A.LD - PFV - M - P.FOL

t_qa < u -lh -ᅅᅇ -u >
bear LD.IND - ESS - PRED - P.LD

“A bear bit [him].”

lit. “the [dangerous animal] bit [him], the [dangerous animal] is a bear”

(5) **xilhtuᅅguklkı̄q hulhklkjunaᅇwh**

xilht_q < u -ᅅᅇ -u -k -lk-ı̄ >
bitten LD.IND - PRED - A.LD - PFV - M - P.FOL

h_naᅇwh < u -lh -lk-ı̄ -j < u >>
cousin LD.IND - ESS - M - P.FOL - 1 LOC.LD

“A [dangerous animal] bit my cousin.”

lit. “the [dangerous animal] bit [him], [he] is my cousin”

(6) **tulhᅅᅇuᅇa hulhklkjunaᅇwh**

t_qa < u -lh -ᅅᅇ -u >
bear LD.IND - ESS - PRED - P.LD

h_naᅇwh < u -lh -lk-ı̄ -j < u >>
cousin LD.IND - ESS - M - P.FOL - 1 LOC.LD

“The one is a bear and the other is my cousin.”

lit. “the [dangerous animal] is a bear, [he] is my cousin”

This last example, (6), sounds somewhat peculiar, but for pragmatic reasons rather than reasons of ungrammaticality. One might find a sentence like this at the beginning of a story to establish characters and assign classifiers, or as an answer to a question:

(7) **uá xilhtı̄ᅅguklkı̄q hixkısukwh tí?**

uá xilht_q < u -ᅅᅇ -u -k -lk-ı̄ >
 DP *bitten* LD.IND - PRED - A.LD - PFV - M - P.FOL

‘(surprise), the [dangerous animal] bit [him]’

h_kwh < i -x -k-ı̄ -s < u >> tí
knowing FOL.IND - STAT - 2 - P.FOL - AUX LOC.LD.IND Q
 ‘you know that, (yes or no?)’

“Did you know that [someone] got bitten [by a dangerous animal]?”

(8) **saù, tulhᅅᅇuᅇa hulhklkjunaᅇwh**

saù t_qa < u -lh -ᅅᅇ -u >
 AFF.LD *bear* LD.IND - ESS - PRED - P.LD

‘yes, the [dangerous animal] is a bear’

The structural relationship between the predicate ‘*you were hunting [the dangerous animal]*’ and the predicate ‘*[the dangerous animal] is a bear*’ is identical to the relationship between the predicate ‘*[the dangerous animal] is a bear*’ and the predicate ‘*a [dangerous animal] bit [him]*.’ Thus, on this front, nothing is gained by positing that ‘*[a dangerous animal] bit [him]*’ and ‘*[the dangerous animal] is a bear*’ are different kinds of morphosyntactic entities.

There are other forms of evidence which, for brevity, I am not describing fully here. For example, any predicate may form a phrase with quantifiers, demonstratives, and other function words. If “a subsequent predicate with an agent or patient that agrees with the first predicate’s agent” was a distinct kind of morphosyntactic entity, or if a particular predicate could somehow be identified as the sentence’s “verb,” we might expect that certain kinds of predicate phrases could only replace predicates in certain positions. However, this is not the case. All predicates in a sentence behave uniformly with respect to predicate phrase expansions. The morphological structure, too, is exactly the same in all the predicates in (1-10).

In order to account for this behavior, an analysis that seeks to differentiate between “nouns” and “verbs” must become increasingly baroque, but for all that complexity, it does no better job of describing (1-10) than an analysis that makes no such distinction:

Discourse referents are identified by classifier morphemes, and a clause consists of predicate phrases which describe those referents, appearing in decreasing order of newsworthiness.

However, we know from the Salishan debate that what appears absent in simple constructions may manifest in more complex ones. We may need to look at sentences with more complex structure to find behaviors we could use to differentiate between nouns and verbs.

Phrasal anaphora

Making a distinction between nouns and verbs grants a language a tremendous degree of expressivity, because it allows for taking an entire verb phrase, transforming it into a noun phrase, and then using **that entire phrase** as an argument of another verb. For example, we can take the verb phrase ‘*go to the movies*,’ transform it into a noun phrase, and use it as the object of a verb, as in “*I like going to the movies.*” Or, you could use it as a subject: “*Going to the movies is fun.*”

The mechanisms in Hiding Waters discussed so far cannot accomplish this. Classifier agreement can show that the patient of a less-newsworthy predicate and the agent of a more-newsworthy predicate are the same object, but it does not provide a way for an **entire predicate phrase** to be referenced by another.

For the “no noun/verb distinction” analysis to work, it must be able to elegantly and effectively account for sentences like these:

(11) **tànòlkusquóqotsìlhti lujussustę hulhlkìkunaùwh**

tàn_tì	< ò	-lk -u	-s	-quóq_tsìlh	< o	>>
<i>dance</i>	LD.SBJV	-M	-A.LD	-IPFV	-festival	LOC.INAN
<i>‘[he] would dance at the festival’</i>						

l_stə < u -j -u -s -s < u >>
saying LD.IND -1 -LD.A -IPFV -AUX LOC.LD
'I was talking about that'

h_nə̀wh < u -lh -lk -i -k < u >>
cousin LD.IND -ESS -M -P.FOL -2 LOC.LD
'[he] is your cousin'

"I was talking about your cousin dancing at the festival."

(12) **dijòqáľixtəstə s̀ròlhtsuq**

dij_tə < ò -qáľ_xtə < ĩ >-s >
traverse LD.SBJV -*mountain_pass* VIA.FOL -IPFV
'were the mountain pass traversed'

s_ < ĩ >-r_tsuq < ò -lh >
 AUX ABL.FOL -*danger* LD.SBJV -ESS
'because of that, there would be danger'

"Traversing the pass is dangerous."

(13) **úng sukngolìt sàu suk̀tolìt hujuktlhsú**

úng s < u -k -ng_lìt < o >>
 NEG.LD AUX LD.IND -PFV -*tomorrow* LOC.INAN
'not, it happens tomorrow'

sàu s < u -k -t_lìt < o >>
 AFF.LD AUX LD.IND -PFV -*today* LOC.INAN
'yes, it happens today'

h_tlh < u -j -u -k >-s < ú >
choose LD.IND -1 -LD.A -PFV -AUX LAT.LD
'I chose in order for that to happen'

"I chose to do it today rather than tomorrow."

Analyzing these constructions requires some background about two important grammatical mechanisms: **root incorporation** and **anaphoric roots**.

Root incorporation is the primary mechanism of derivation in Hiding Waters. Predicate roots may be embedded into another fully-inflected predicate at a number of sites, each with different meanings. For instance, a root may be incorporated at the LATIVE position to indicate a destination, result, or goal.

(14) **kujuxtə**

k_tə < u -j -u -x >
go LD.IND -1 -LD.A -STAT

"I am going."

(15) **kujuxtəlhósn**

k_tə < u -j -u -x >-lh_sn < ó >
go LD.IND -1 -LD.A -STAT -*small_river* *lat.inan*

"I am going to the river."

(16) kujuxtəxulqúq

k_tə < u -j -u -x > -xulq_tə < ú >
 go LD.IND -1 -LD.A -STAT -hunt LAT.LD

“I am going to hunt.”

(Note that, by a similar argument to the one given above for classifier morphemes, incorporated roots must be analyzed as bound morphemes on the predicate, not independent constituents themselves.)

There are four available incorporation sites in a predicate, each of which may contain up to one incorporated root:

- ABLATIVE (ABL): origin, source, or cause
- VIALIS (VIA): route, manner, or duration
- LOCATIVE (LOC): location, topic, or point in time
- LATIVE (LAT): destination, result, or goal

Anaphoric roots are a closed class of lexical items which refer to other predicate phrases or clauses in specialized ways. These include:

- **s***: a generic reference to another phrase or clause
- **s*wh**: a reference to the manner in which another phrase or clause happens
- **s*tlh**: a reference to the time at which another phrase or clause happens
- **s*kwh**: a reference to the place at which another phrase or clause happens

(Notational note: words containing asterisks like **s*** and **s*wh** are the uninflected “dictionary forms” of particular roots.)

We can see how these systems interact in (11-13) to produce instances of **phrasal anaphora**: structures in which an incorporated anaphoric root in one predicate refers to some other predicate phrase.

(11) tánòlkusquóqotsìlhti lujusustə hulhlkukunaùwh

tàn_ti < ò -lk -u -s -quóq_tsih < o >>
 dance LD.SBJV -M -A.LD -IPFV -festival LOC.INAN
 ‘[he] would dance at the festival’

l_stə < u -j -u -s -s < u >>
 saying LD.IND -1 -LD.A -IPFV -AUX LOC.LD
 ‘I was talking about that’

h_naùwh < u -lh -lk -u -k < u >>
 cousin LD.IND -ESS -M -P.FOL -2 LOC.LD
 ‘[he] is your cousin’

“I was talking about your cousin dancing at the festival.”

The first predicate describes the listener’s cousin hypothetically dancing at the festival; the second describes the speaker talking, and embeds a generic anaphoric reference (-**su-**, highlighted in the gloss) to the first predicate as a locative argument to indicate the topic of conversation.

(12) **dijòqálìxteṣṣè sṛòlhtsuq**

dij_tḗ < ò- qál_xte < ì >-s >
traverse LD.SBJV- *mountain_pass* VIA.FOL -IPFV
'were the mountain pass traversed'

s < ì >- r_tsuq < ò -lh >
 AUX ABL.FOL - *danger* LD.SBJV -ESS
'because of that, there would be danger'

“Traversing the pass is dangerous.”

The first predicate describes the hypothetical act of traversing the pass, and the second describes a hypothetical presence of danger, incorporating a generic anaphoric reference to the first as an ablative argument indicating a cause (-sṛ-).

We can contrast this with more concrete statements about dangerous things, in which the thing that is dangerous is referenced not with an ablative argument, but with a patient classifier morpheme:

(17) **tòlhṅuṣṣà ròlhṅuṣṣuq**

t_qà < ò- lh- ṅg- u >
bear LD.SBJV - ESS - PRED - P.LD
'were the [animal] a bear'

r_tsuq < ò- lh- ṅg- u >
danger LD.SBJV - ESS - PRED - P.LD
'the [animal] would be dangerous'

“Bears are dangerous.”

(17) strikes a much closer structural resemblance to sentences like (1) than it does to (12). Since the “dangerous animals” are a discourse referent with an associated classifier, they can be further referenced via classifier agreement (with -ṅg-) on later predicates. However, “traversing the pass” is not a discourse referent and has no associated classifier, so it must be referenced by incorporated roots instead.

Interestingly, there is not a straightforward mapping between these two situations. For instance, while in (12) what would otherwise be marked as a patient is instead incorporated as an ablative argument, it is not always the case that ablative arguments replace patients, as we see in (13):

(13) **ùṅ sukṅgolìṣ sàu sukṣolìṣ hujuktlhsú**

ùṅ s < u -k -ṅ_lìṣ < o >>
 NEG.LD AUX LD.IND -PFV -*tomorrow* LOC.INAN
'not, it happens tomorrow'

sàu s < u -k -ṣ_lìṣ < o >>
 AFF.LD AUX LD.IND -PFV -*today* LOC.INAN
'yes, it happens today'

h_tlh < u -j -u -k >-s < ú >
choose LD.IND -1 -LD.A -PFV -AUX LAT.LD
'I chose in order for that to happen'

“I chose to do it today rather than tomorrow.”

This contrasts similarly with more concrete statements where classifier agreement is available:

(18) **tulhṅuq̄a hujukṅuṭlh**

t_q̄a < u -lh -ṅg -u >
bear LD.IND -ESS -PRED -P.LD
'the [dangerous animal] is a bear'

h_tlh < u -j -u -k -ṅg -u >
choose LD.IND -1 -LD.A -PFV -PRED -P.LD
'I chose the [dangerous animal]'

"I chose the bear."

In (18), the bear is a discourse referent with an associated classifier, which is then included as the patient on the predicate "I chose". However, in (13), the predicate "I chose" marks no patient at all, and instead incorporates an anaphoric reference to the other predicate phrase as a lative argument indicating a result or goal (-sú).

In this regard, we have uncovered distinct sets of morphosyntactic behavior! We might observe the following:

Certain predicates can be referenced by other predicates via classifier agreement, but:
Other predicates can only be referenced via incorporated anaphoric roots.

Conceivably, we might even be able to use this difference as the basis for a noun/verb distinction. We could propose the following:

In Hiding Waters, the "nouns" of a sentence are those predicates which can be referenced by classifier agreement, while "verbs" are those predicates which can be referenced only by incorporated anaphoric roots.

This would fit well with intuition from English, which holds that in sentences like (17) and (18), the argument of the verb seems to be a noun, while in sentences like (12) and (13), the argument of the verb seems to be a nominalized verb phrase.

But once again, this idea runs into challenges and is ultimately unsatisfying.

We still have the problem that the posited distinction doesn't seem to produce other observations of interest. If predicates referenceable by classifier agreement are "nouns", and predicates referenceable by anaphoric roots are "verbs", we might expect them to exhibit some distinct behavior when it comes to morphological structure, newsworthiness ordering, or the kinds of phrases they can form with quantifiers or demonstratives. But no such differences manifest.

Perhaps more problematically, this analysis conflicts with data where a predicate can be referenced in both ways. Refer again to example (11):

(11) **tànołkusquóqotsìlhti lujussuste hulhłkukunaùwh**

tà_n_tì < ò -łk -u -s -quóq_tsìlh < o >>
dance LD.SBJV -M -A.LD -IPFV -*festival* LOC.INAN
 ‘[he] would dance at the festival’

l_stę < u -j -u -s -s < u >>
saying LD.IND -1 -LD.A -IPFV -AUX LOC.LD
 ‘I was talking about that’

h_nauwh < u -lh -łk -u -k < u >>
cousin LD.IND -ESS -M -P.LD -2 LOC.LD
 ‘[he] is your cousin’

“I was talking about your cousin dancing at the festival.”

The first predicate, describing the cousin’s hypothetical performance at the festival, is first referenced by the second predicate via an incorporated anaphoric root **-su-**, but then referenced by the third predicate via classifier agreement on the **-łk-** “male” classifier. Using our provisional framework, should we classify the first predicate as a noun or as a verb?

We might resolve the paradox by saying that we can still classify the first predicate as a verb, because it isn’t really being referenced by the third predicate—rather, the relationship goes the other way around. It is referencing the third predicate by classifier agreement, which indicates the third predicate is a noun.

This is promising, and fits well into the familiar idea that the third predicate, a noun, is an argument of the first predicate, a verb. However, this niceness is really just due to the fact that only one predicate in the sentence exhibited both classifier-agreement and anaphoric-reference behavior, which meant we could analyze that predicate as the “main verb” and point all the classifier-agreement references away from it rather than toward it. But we can find other examples where this is not the case:

(19) **tànołkusquóqotsìlhti lujussuste hukkułthołhkołhwhłttłk lusúkukste**

tà_n_tì < ò -łk -u -s -quóq_tsìlh < o >>
dance LD.SBJV -M -A.LD -IPFV -*festival* LOC.INAN
 ‘[he] would dance at the festival’

l_stę < u -j -u -s -s < u >>
saying LD.IND -1 -LD.A -IPFV -AUX LOC.LD
 ‘I was talking about that’

h_wht < u -k -k -u -łhółhk_łh < o >> -t_łk < ú >
encounter LD.IND -PFV -2 -P.LD -*forest* LOC.INAN -M LAT.LD
 ‘you met [him] in the woods’

l_stę < u -s < ú > -k -u -k >
saying LD.IND -AUX VIA.LD -2 -LD.A -PFV
 ‘you said as much’

“I was talking about [the man] that you said you met in the woods dancing at the festival.”

Here, “you met [him] in the woods” has a classifier-agreement relationship with “[he] would dance at the festival” via the **-łk-** “male” classifier. According to our proposed framework, we

should say that “*you met [him] in the woods*” is therefore a noun, and an argument of “[*he*] *would dance at the festival.*”

But “*you met [him] in the woods*” is also referenced by the incorporated anaphoric root in “*you said as much,*” which our proposed analysis says should make it a verb. We could try to untangle this knot by positing that some kind of nominalizing process is in play, by which the verb phrase “*you said that you met [him] in the woods*” is rendered into a noun phrase which “[*he*] *would dance at the festival*” can reference via classifier agreement.

But this supposed nominalizing process doesn’t seem to leave any tracks. No other markings indicating it are evident, no changes in phrase-ordering, no specialized syntactic structures. It merely exhibits both classifier-agreement, and incorporated-root anaphora. Including it in our analysis adds complexity, with no benefit.

(There is one more quick but informative observation to make about (19): both the “*I was talking about that*” and “*you said as much*” predicates contain incorporated anaphoric roots, but these anaphoric roots refer to two different predicates. How does the speaker know what refers to what? There is morphological marking that, in some cases, provides a hint via “stance agreement”, which is discussed more in the next section. But generally, the reference is resolved contextually, much like how the antecedent of a pronoun is determined. As with pronouns, if context is insufficient to work out what a particular anaphoric root refers to, speakers may break up the sentence, or find a way to reword their statement in a less ambiguous way.)

Finally, the theory that nouns are identifiable as the targets of classifier agreement requires us to account for sentences like (4) and (5), where there is no predicate to serve as the target of agreement. We might posit that in such constructions, the noun is structurally present, but unstated. However, again, we are having to posit invisible entities that leave no tracks in the data, and we don’t appear to gain any additional descriptive power by doing so.

A simpler accounting is just that the observed difference between classifier-agreement reference and incorporated-anaphoric-root reference has nothing to do with a difference in morphosyntactic types, but is rather indicative of a difference in the kind of reference being made. Namely:

Classifier agreement is used to reference a specific element within the predicate, such as its agent or patient, while incorporated anaphoric roots are used to reference the whole idea described by the phrase or clause in its entirety.

This framing handles the data that troubled the noun/verb analysis seamlessly.

- The fact that predicates can consistently form all the same kinds of phrases regardless of what kinds of references are made to them is unsurprising; after all, they are just predicates.
- The first and third predicates in (11) do not refer to each other so much as they both refer to the same external object: namely, a certain male person, who is your cousin, and who will also perhaps be dancing at the festival.
- The second predicate in (11) incorporates an anaphoric root not because the first predicate is a verb, but because the speaker was not just talking about the listener’s cousin, or just about the festival—they were talking about the entire idea of the cousin dancing at the festival. A similar accounting works for the anaphora in (19).

- We need not posit any unstated or implied constituents in sentences (4) and (5). They both merely make reference to a particular discourse referent about which nothing more needs to be said.

Clausal Anaphora

I've made a few references thus far to “phrases” and “clauses”, but I should pause here to clarify what I use those terms to mean with regard to Hiding Waters, since they are somewhat different from the typical definitions.

A **phrase** (or more verbosely, a “predicate phrase”) is a contiguous constituent headed by a predicate (or several coordinated predicates), and optionally containing certain other modifying function words like demonstratives or quantifiers. For example:

(20) **nú xilhtuᅅguklkiᅅ tulhᅅᅇuᅇa hulhlkijunaᅇwh**

nú xilht_q < u -ᅅᅇ -u -k -lk -i >
 VIS bitten LD.IND -PRED -A.LD -PFV -M -P.FOL
 ‘that the [dangerous animal] bit [him]’

t_qa < u -lh -ᅅᅇ -u >
 bear LD.IND -ESS -PRED -P.LD
 ‘the [dangerous animal] is a bear’

h_naᅇwh < u -lh -lk -i -j < u >>
 cousin LD.IND -ESS -M -P.FOL -1 LOC.LD
 ‘[he] is my cousin’

“That bear bit my cousin.”

Here, **nú xilhtuᅅguklkiᅅ** “that [dangerous animal] bit [him]” is a predicate phrase. Predicate phrases are in a sense finitely contained, since, with the exception of coordination, there is no opportunity for arbitrarily-deep recursion. You cannot stack arbitrarily many quantifiers or demonstratives onto a predicate, and so a predicate phrase can typically only be a few words long.

Clauses, however, are much more expansive. A clause is a series of phrases which form a prosodic unit, and which typically are bounded by **discourse markers** - a closed set of particles which modify the entire clause, usually indicating what purpose the speaker has for the clause with respect to the broader conversation.

Clauses allow anaphoric references to capture more complex meanings than those represented by individual predicates. For example, compare these two sentences, the first of which contains just one clause, while the second contains two:

(21) **xngusslᅅsikwhsq sulkik hᅅ xᅇ sᅇtlhelhuxnx na**

xng_sq < u -s -sl -ᅅ -s_kwh < i >>
 smoke LD.IND -IPFV -fish -P.INAN -L LOC.FOL
 ‘fish are being smoked there’

s_ < u -lk -i -k > hᅅ
 AUX LD.IND -M -A.FOL -PFV DEF
 ‘[he] did it’

xù s_ < ì > -tlhẹh_nx < u -x > na
 very AUX ABL.FOL -difficult LD.IND -STAT DP
 ‘very, because of that, it is difficult’

“What he did in the fish-smoking area has made things very difficult.”

(22) **xàu xngsq sulkik hẹ, dèi xù sùtlhẹhuxnx na**

xàu xng_sq < u -s -sl -o -s_kwh < i >>
 DP smoke LD.IND -IPFV -fish -P.INAN -L LOC.FOL
 ‘(disgust) fish are being smoked there’

s_ < u -lk -i -k > hẹ
 AUX LD.IND -M -A.FOL -PFV DEF
 ‘[he] did it’

dèi xù s_ < ì > -tlhẹh_nx < u -x > na
 DP very AUX ABL.FOL -difficult LD.IND -STAT DP
 ‘(explain), very, so, it is difficult’

“The fact that he did this in the fish-smoking area has made things very difficult.”

In both of these sentences, the predicate “*things are difficult*” incorporates an anaphoric reference as an ablative argument, indicating a cause. They differ in that (22) creates a clausal boundary around “*he did this where fish are smoked,*” while (21) does not. The result is that in (22), the cause of the difficulty is the entire situation described by the clause—not only what he did, but that he did it where the fish are smoked—whereas in (21), the cause of the difficulty is only the contents of the predicate phrase “*he did this.*” The fact that it was done in the fish-smoking area is just an extra newsworthy detail.

Clausal boundaries, in combination with anaphoric references, thus provide another mechanism for sentences to express progressively more nuanced meanings. However, they also introduce some subtle behaviors that are potentially relevant toward finding a way to differentiate nouns from verbs.

To show how, we need to discuss incorporated anaphoric roots in a little more detail. Specifically, we need to talk about **stance marking**.

Stance is a major grammatical concept in Hiding Waters. The particulars of it are not relevant to this discussion, except to say that speakers take a particular “stance” toward each referent in a conversation — either “leading”, “following”, or “inanimate” stance — and then inflect references (including agent and patient classifier morphemes and incorporated roots) with the appropriate stance for their referent. This creates **agreement** relationships between words that refer to common referents, and these agreement relationships exhibit some interesting behavior when it comes to phrasal and clausal anaphora.

Part of the riddle of incorporated anaphoric roots is that incorporated roots can only be inflected for a single stance, but the predicate phrase or clause the anaphor refers to may involve **many** referents, each with their own stance toward the speaker.

When this happens, the stance chosen to inflect the incorporated root is the stance of **the most salient element** of the referenced phrase or clause. For example:

(23) x̄lhtuᅇguklkiᅇ s̄ixàruxlking

x̄lht_q < u -ᅇᅇ -u -k -lk -i >
bitten LD.IND -PRED -A.LD -PFV -M -P.FOL
 ‘the [dangerous animal] bit [him]’

s_ < ì > -xàᅇᅇ < u -x -lk -i >
 AUX ABL.FOL -angry LD.IND -STAT -M -P.FOL
 ‘because of that, [he] is angry’

“He is angry because he got bitten by that [dangerous animal].”

(24) x̄lhtuᅇguklkiᅇ s̄uxàruxlking

x̄lht_q < u -ᅇᅇ -u -k -lk -i >
bitten LD.IND -PRED -A.LD -PFV -M -P.FOL
 ‘the [dangerous animal] bit [him]’

s_ < ù > -xàᅇᅇ < u -x -lk -i >
 AUX ABL.LD -angry LD.IND -STAT -M -P.FOL
 ‘because of that, [he] is angry’

“He is angry because that [dangerous animal] bit him.”

In both (23) and (24), the first predicate “*he is angry*” incorporates an anaphoric ablative argument indicating the cause of the hurt. The referent of the anaphor, “*he got bitten by that bear,*” contains references to two referents: “*he*”, toward which the speaker has taken **following** stance, and the “*dangerous animal,*” toward which the speaker has taken leading stance.

In (23), the incorporated anaphoric root in the first predicate is inflected with **following** stance, agreeing with the **patient** “*he*” of the referenced phrase. This foregrounds the man who got bitten, directing the listener’s attention to him and backgrounding the animal that did the biting.

In contrast, (24) inflects the anaphor to agree with the referenced phrase’s **agent**. This highlights the **animal**, stressing its importance to the speaker’s point and making it more prominent to the listener.

With this feature in mind, we can make some interesting observations about example (22):

(22) x̄àu xᅇᅇs̄lōsikwhsq sulkiᅇ h̄e, d̄eì x̄u s̄ìtlh̄eᅇhuxnx na

x̄àu xᅇᅇsq < u -s -sl -o -s_kwh < i >>
 DP *smoke* LD.IND -IPFV -fish -P.INAN -L LOC.FOL
 ‘(disgust) fish are being smoked there’

s_ < u -lk -i -k > h̄e
 AUX LD.IND -M -A.FOL -PFV DEF
 ‘[he] did it’

d̄eì x̄u s_ < ì > -tlh̄eᅇh_nx < u -x > na
 DP *very* AUX ABL.FOL -difficult LD.IND -STAT DP
 ‘(explain), very, so, it is difficult’

“The fact that he did this in the fish-smoking area has made things very difficult.”

With respect to stance marking, clausal anaphora is even trickier than phrasal anaphora, because there are **even more** referents with which the incorporated anaphoric root could agree. In this case, there is the agent of “*he did this*,” toward which the speaker has taken **following** stance, and there is the patient of “*fish are smoked there*,” toward which the speaker has taken **inanimate** stance.

It is interesting, then, that the incorporated anaphor in “*because of that, things are very difficult*” is inflected with following stance, rather than inanimate stance. That is, out of all the predicates in the clause, it chose “*he did this*” to agree with.

This could maybe serve as a very subtle hint to something like a verb-with-arguments relationship. If, when predicates incorporate an anaphoric reference to a clause, those references agree with a particular predicate within that clause, we could perhaps use this to say that:

The predicate of a clause with which external clausal anaphora markings agree is the “root” (or “main verb”) of the clause, and the other predicates in the clause are subordinate arguments of it.

This analysis still has the problem that without more distinctive behaviors correlated with this classification — observations about how “root” predicates of clauses behave differently than “argument” predicates in the clause, for example — it feels like a label that provides no other service besides existing.

Furthermore, it is contradicted by examples where different anaphoric references to the same clause agree with different predicates within the clause, such as:

(25) **xaù xngsq sulkik hè, dèi xù s̄tlh̄huxnx na, s̄i tlh̄lhoàjkusoske**

xaù xngsq < u -s -sl -o -s_kwh < i >>
 DP smoke LD.IND-IPFV -fish -P.INAN -L LOC.FOL
 ‘(disgust) fish are being smoked there’

s < u -lk-i -k > hè
 AUX LD.IND -M -A.FOL -PFV DEF
 ‘[he] did it’

dèi xù s̄ < ì > -tlh̄h_nx < u -x > na
 DP very S ABL.FOL -difficult LD.IND-STAT DP
 ‘(explain), very, so, it is difficult’

s̄i tlh̄l_hske < oà -jk -u -k -s_ < o >>
 DP clean LD.OPT-1.INCL -A.LD -PFV -AUX LOC.LD
 ‘(alas), let’s make that clean’

“The fact that he did this in the fish-smoking area has made things very difficult, we should clean it up.”

This example is interesting in that it contains two anaphoric references to the “*he did this in the fish cleaning area*” clause. The first, an ablative incorporation on “*so, it is difficult*,” is marked with “following” stance to agree with the agent of “*he did this*,” but the second, a locative incorporation on “*let’s make that clean*,” is marked with “inanimate” stance to agree with the patient of “*fish are being smoked there*.”

We might try to avoid a contradiction with our hypothesis by saying that the second reference is not actually an instance of clausal anaphora, but is instead **phrasal** anaphora, intended to reference only the predicate phrase “*fish are smoked there.*” If this were the case, though, we would expect the speaker to have used the locative anaphoric root **s*kwh** to refer just to the **location** where the fish are prepared, rather than the generic anaphoric root **s***. The fact that they did not suggests that it is not just the place that the speaker is suggesting they clean up, but everything that was done there — that is, they are referencing the entire clause.

This complicates the hypothesis that there is a single “root” predicate in a clause with which outside clausal anaphora will agree, but it is handled elegantly by the same description used for stance agreement in phrasal anaphora: **the incorporated anaphoric root agrees with the most salient referent in the referenced phrase or clause.** Here, while the speaker is still talking about cleaning up everything that the man did in the fish smoking area, they are shifting their attention away from his actions and toward the fish that need cleaning up.

Conclusion

In the end, differentiating between “nouns” and “verbs” among constituents of Hiding Waters sentences is unnecessary to adequately describe the language’s morphosyntactic behavior, and therefore, analyses that posit such a distinction introduce complexity without corresponding payoff.

Constituents in simple phrases are best described not as verbs, subjects, and objects, but as a series of predicates in order of decreasing newsworthiness, incrementally supplying information about a set of discourse referents using a collection of shared classifiers.

More complex constructions involving references to other phrases and clauses are best described not as main-verb/dependent-clause relationships, but rather as anaphoric relationships that are resolved not structurally, but pragmatically (similarly to the way pronouns resolve their antecedents).

Interesting patterns of behavior do surface around such anaphoric references, such as stance agreement, and alternations of argument type when incorporating anaphoric roots (for example, anaphoric references incorporated in **ablative** position on the root **r*tsuq** ‘*dangerous*’ are analogous to classifier morphemes in patient position, but on the root **h*tlh** ‘*chosen*’, patient-position classifiers are analogous to **lative**-position anaphoric references).

However, these behaviors do not provide sufficient evidence for major statements about underlying structure. The differences in argument type for incorporated anaphora appear to simply be lexical differences unique to the various roots hosting the incorporation, and while stance agreement provides a promising avenue for further exploration, in the data available so far, the choice of target for stance agreement appears to be pragmatic, based on salience to the speaker, rather than structural.

There are, of course, limitless ways that morphosyntactic differences can manifest, so there will always be more rocks to turn over, more tracks to follow, more things to try, in the effort to see if a distinction between nouns and verbs in Hiding Waters can be identified. And that is just the very best, because no matter where I look, no matter what I find, it’s always some kind of interesting.

18

The TAM System of Ahale

by Pancake

Who needs morphology anyway?

Ahale is an *a priori* personal artlang, phonoaesthetically inspired by Hawaiian and Tagalog¹. Ahale is the product of my attempts to create a language with minimal inflectional morphology, as I feel I'd been relying on it too much in the past. I've been working on Ahale since March of last year, and it is my most developed language by far.

Before diving into the article itself, allow me to give a quick outline of how the article will be structured. I'll begin with an introduction to perhaps the most unique piece of Ahalean TAM and its intersection with nouns, in the form of **direct-inverse alignment**. I'll show example sentences with varying constituents, first intransitive, then transitive. I'll also briefly discuss inversion of transitive sentences. Once that's out of the way, we'll take a look at the finer details of verbs themselves. I'll show a special flavor of imperfective which only pops up occasionally, and then we'll look at several of the future tense constructions, and the various situations in which they are used.

Direct-inverse alignment

At the core of a direct-inverse system is an **animacy hierarchy** (also sometimes referred to as a person hierarchy). This hierarchy determines whether a verb will take direct or inverse marking.

In Ahale, this hierarchy is 2nd > 1st > 3rd (PROXIMATE) > 3rd (OBVIATE)

¹All resemblance to actual lexemes from either of these languages is (mostly) coincidental! They serve as great jumping off points, and are great to fall back on, but I'm no alt-hist mastermind. I just think they're neat!

Intransitive verbs

One of the most important things about hierarchical alignment is that the core argument of an intransitive verb does not participate in direct-inverse alternation. All intransitive verbs are considered direct, and left unmarked.

(1) **a'u xaisi.**

a'u xaisi
1.SG *sleep*

“I am sleeping.”

(2) **akatewi hasi.**

akatewi hasi
soldier continue

“The soldier is training (and should not be interrupted).”

(3) **wa'u teuteukeu.**

wa'u teuteukeu
cheese rot

“The cheese is molding.”

I've kept all of the verbs very simple for this set of examples. They are all nonpast imperfective, which in most cases is interpreted as specifically progressive aspect.

Transitive verbs

In a transitive sentence, the animacy of the two verbal arguments is compared against the animacy hierarchy. In the case that the animacy of the agent falls below the animacy of the patient on the hierarchy, the inverse form of the verb is required. Ahale forms the inverse with the suffix **-si**.

Transitive verbs additionally trigger nominal inflection. Nouns carry **ergative-absolutive** case marking, which is not seen with intransitive verbs; the absolutive case is unmarked. We'll start by looking at a set of sentences in which the agent and patient are of differing person.

(4) **a'au keke wa'u.**

a' ~ au keke wa'u
ERG ~ 1.SG *eat cheese*

“I am eating cheese.”

Here, the agent **a'au** outranks **wa'u** (1 > 3), so the direct form is used. Also, **a'u** undergoes a reduplicative process which marks the ergative case. This redundancy comes in handy for various constructions I will discuss later on.

(5) **a'au 'ikesi i'a.**

a' ~ au 'ike -si i'a.
ERG ~ 1.SG *understand* -INV 2.SG

“I understand you.”

Because of the ergative marking, it is clear that **a'au** is the agent. This means that correct animacy for this sentence is 1 > 2. However, following the animacy hierarchy, 2nd person outranks 1st person. This means **'ike** needs to be in the inverse form, **'ikesi**, as reflected in the glossed example.

Disagreement between the case marking and the inflection of the verb is ungrammatical, and can cause even greater misunderstanding in more complex constructions. An example of this can be seen below, where I've presented two ungrammatical versions of (5):

(6) ***a'au 'ike i'a.**

a' ~ au 'ike i'a
 ERG ~ 1.SG *understand* 2.SG

Intended: "I understand you."

(7) ***a'u 'ikesi i'ia.**

a'u 'ike -si i' ~ ia
 1.SG *understand* -INV ERG ~ 2.SG

Intended: "I understand you."

In (6), the case marking suggests 1 > 2 animacy, but the lack of inverse morphology on **'ike** when paired with 1st and 2nd person predicates suggests the opposite relationship.

(7) is essentially the same mistake, but in the opposite direction. The inverse morphology is present, while the noun cases have been assigned incorrectly.

3>3 animacy

(8) **hahawi keke fumau.**

ha ~ hawi keke fumau
 ERG ~ *rabbit* *eat* *grass*

"The rabbit is eating the grass."

In the case of a verb with two 3rd person predicates, the direct-inverse system alone is insufficient in disambiguating agency. Because of the previously redundant case marking, however, no clarity is lost.² In this sort of situation, the inclusion of inverse morphology is mostly optional. It tends to be applied based on saliency, and is sometimes influenced by the expected relationship between the two objects.

(9) **wa mea'u wu ipe?**

wa me- a'u wu ipe
 AFF PL- 1 *on.top* *place*

"Are we there yet?"

²The proximate/obviate distinction is on its way to being fully supplanted by the case marking, however older generations of Ahale speakers oftentimes mark obviation alongside the absolutive. Older speakers tend to prefer **hahawi keke lu fumau** for this, but younger speakers tend to interpret this **lu** as a de-emphatic particle, in turn placing contrastive focus on the agent.

You've probably noticed that for an article about verbs, I haven't covered much about them yet. However, this allows me to be a bit more dismissive of the basics as we move on to verbs themselves.

Morphophonology

Aside from the inverse marker **-si**, verbs only inflect for a very small set of TAM affixes. Ahale distinguishes between nonpast and past tense, as well as between imperfective and perfective aspects.

The affixes themselves are given in the following table:

	Nonpast	Past
Imperfective	∅-	i-
Perfective	V-	mu-

Until this point we've only looked at nonpast imperfective verbs. Most forms given by the table are simple concatenative prefixes, although looking at the table you will notice that the nonpast perfective is noted as V-. This represents an **echo vowel**, whose realization is determined by the nucleus of the initial syllable of the stem it attaches to.

- (10) keke → ekeke
 alu → a'alu
 'ike → i'ike
 imane → i'imane

You may have noticed that for the latter two examples, this looks identical to what would be expected for the past imperfective **i-**. You might be thinking, "Syncretism? In a paradigm this small?" Not quite. |V-| behaves differently from the rest of these morphemes, in that it does not move stress. Ahale places stress on the first syllable of a word, unless that would result in a stressed schwa. In that case, the word receives stress on its second syllable, regardless of the vowel. This means that under ordinary circumstances, adding a prefix will shift stress, but this will not occur with |V-|.

This results in minimal pairs between these two forms in i-stem verbs, which differ solely by the placement of stress.³

Additionally, the prefix **mu-** is reduced to **m-** when attached to vowel-initial stems:

- (11) keke → mukeke
 'ike → mu'ike
 aila → maila

Aspect

Perfective

At a basic level, perfective aspect describes a completed action, or an action with a specified duration.

³For ease of understanding, the past imperfective of i-stem verbs will be written using <i>.</i>

(12) **a'u axaisi.**

a'u a ~ xaisi
1.SG NPST.PFV ~ *sleep*
“I fell asleep.”

(13) **a'au alau weha.**

a' ~ au a ~ lau weha
ERG ~ 1.SG NPST.PFV ~ *neaten* *curtains*
“I neatened the curtains.”

Nonpast perfective aspect is used commonly as a sort of recent past, where the event in question is roughly adjacent to the speech act. The most important caveat of this is that the nonpast only acts this way if other relevant events do not intervene significantly.

In order to specify duration, the appropriate unit of time is placed directly before the verb. A discussion of numbers and counting is out of the scope of this article; all of the following examples will have a duration of one of their respective units. These units can be either formal units (days, hours, minutes, *etc.*), or more abstract units of time (*eg.* seasons or in reference to culturally significant events).

(14) **a'au kati alau weha.**

a' ~ au kati a ~ lau weha
ERG ~ 1.SG *minute* NPST.PFV ~ *neaten* *curtains*
“I fussed with the curtains for a minute.”

This duration may either be the length of time for which an event occurred, or in the case of some verbs, the length of time subsequent to an event's beginning. The latter (formally described as the **prospective aspect**) applies consistently to stative verbs, as well as to a small set of dynamic verbs.

(15) **a'u ne'e u'uata**

a'u ne'e u' ~ uata
1.SG *hour* NPST.PFV ~ *be.full*
“I was full after an hour of eating.”

(16) *Context:* Why did you leave the celebration?

a'u ne'e mulaika

a'u ne'e mu-laika
1.SG *hour* PST.PFV - *be.lonely*
“I was lonely after an hour.”

(16) uses the proper past tense, rather than the pseudo-construction that can be made with nonpast tense. This is primarily because the celebration itself is considered to have intervened between the loneliness and this conversation. Additionally, unless the conversation was had while leaving the celebration, the celebration is less topical in a temporal sense.

Previously, I mentioned that prospective readings are not exclusive to stative verbs. The verb **xaisi** for example, can sometimes be interpreted prospectively:

(17) **a'u ne'e axaisi.**

a'u ne'e a ~ xaisi
 1.SG *hour* NPST.PFV ~ *sleep*

“I slept for an hour.”

Or: “I fell asleep in an hour.”

In the case of **xaisi** and other verbs which behave similarly, the intended reading of the perfective forms must be discerned from context. Note that these are *usually* read perfectively, while the prospective reading is much more common in things like (12) with no specified duration.

Imperfective

Generally, the imperfective is used as a simple progressive aspect, as shown all the way back in (1). A sort of duration can be applied to imperfective verbs in the same manner as perfective verbs, which simply describes how long the event has been occurring *since its observation*. Often this implies some sort of direct sensory observation, but information established through word-of-mouth can fulfill the same function in more abstract situations, or those in which direct experience with the situation would be unreasonable or strange.

(18) **malaku ne'e xaisi.**

malaku ne'e Ø - xaisi
cat hour NPST.IPFV - *sleep*

“The cat has been sleeping for an hour.”

(19) **akatewi ausi'a ihasi.**

akatewi ausi'a i - hasi
soldier summer PST.IPFV - *continue*

“The soldier had been training all summer (and may still be training).”

(20) **eukeu teeki í'ilekatu.**

eukeu teeki í' - ilekatu
bread yesterday PST.IPFV - *be_stale*

“The bread has been stale since yesterday.”

Habitual imperfectives

There is a second (and much less common) use of the imperfective, where it sometimes replaces a perfective aspect. In discourse, the ambiguity introduced by this is fairly minimal, though it may pose problems for isolated translations.

(21) **masa ti.**

masa Ø - ti
sun NPST.IPFV - *rise*

“The sun is rising.”

Or: “The sun rose.” (just now, I watched it)

This alternation happens with events that are known to be habitual, for which drawing a distinction between each discrete instance is less important. This is not a frequently utilized structure, but is common when referring to things that happen out of human control.

Phenomena which follow this principle include:

- The passage of seasons
- Cycles of the sun and moon
- Other cyclic natural processes
- Time, in the context of inevitability and continual change

These imperfectives also tend to imply a more direct experience of the event; the perfective is still grammatical in these situations, and can be used to draw attention to a particular instance of a habitual event.

(22) **masa kai iti.**

masa kai i ~ ti
sun today NPST.PFV ~ rise

“The sun rose today.” (this day in particular)

And of course, this can be rendered explicitly past tense if the situation warrants it:

(23) **masa te’eki muti.**

masa te’eki mu - ti
sun yesterday PST.PFV - rise

“The sun rose yesterday.” (this day in particular)

Future Tense Constructions

Ahale does not feature a morphological future, instead relying on a number of periphrastic constructions.

Dynamic verbs

In situations where the context is clear, the nonpast tense can be used with no additional periphrasis to form the future:

(24) *Context:* How are you going to thank your cousin for the gift?

a’au akamai tiname.

a’ ~ au a ~ kamai tiname
ERG ~ 1.SG NPST.PFV ~ send letter

“I will send a letter.”

Explicit dynamic future

The explicit future of dynamic verbs is derived from the phrase **iwa, alete wa**, which can be idiomatically translated as ‘It was, and so it shall be’. This was generalized to allow for its use with other verbs.

(25) **masa íti alete ti.**

masa	í-ti	alete	∅	rise
<i>sun</i>	PST.IPFV- <i>rise</i>	<i>thus</i>	NPST.IPFV	<i>rise</i>

“The sun will rise.”

This is used with habitual imperfectives most frequently, but ordinary dynamic verbs can be used with this construction in the same way. Because this is *primarily* used with habitual perfectives, use with typical imperfectives can at times sound strange, though not necessarily incorrect. Usually, this construction is used when something had happened in the past, and is typical or common behavior (or, in the case of more abstract events, simply something which is common occurrence).

First, let’s look at a few felicitous⁴ examples:

(26) **malaku ixaisi alete xaisi**

malaku	i-xaisi	alete	∅	xaisi
<i>cat</i>	PST.IPFV- <i>sleep</i>	<i>thus</i>	NPST.IPFV	<i>sleep</i>

“The cat will be sleeping.”

(27) **akatewi ausi’a ihasi alete hasi.**

akatwei	ausi’a	i-hasi	alete	∅	hasi
<i>soldier</i>	<i>summer</i>	PST.IPFV- <i>continue</i>	<i>thus</i>	NPST.IPFV	<i>continue</i>

“The soldier will be training all summer.”

One could analyze this future construction as conveying an implicit “again”, explaining why it is usually used with commonly occurring events. This analysis is more apt in describing (27), where the continuation of the event is not to be *observed*, but rather *expected*.

Now to look at a few infelicitous examples, followed by their felicitous counters. Typically the corrected form will be use the unmarked future, but a bit of additional periphrasis to properly convey tense may be necessary.

(28) **#a’au imu alete mu akatewi.**

a’~ au	i-mu	alete	∅	mu	akatewi
ERG~ 1.SG	PST.IPFV- <i>become</i>	<i>thus</i>	NPST.IPFV	<i>become</i>	<i>soldier</i>

“I will be a soldier.”

⁴While I present these examples as felicitous, these are still contextually dependent. I’ve attempted to choose examples which are relatively stable, covering very simple events. Even so, the same concepts could be translated differently if it was determined that they would not be known or common occurrences in a specific situation.

The mistake in this example is probably the simplest to recognize. Unless this person had been a soldier in the past, left the job, and returned, framing this change as reoccurring is not sensible. The only scenario in which the **iwa alete wa** construction could be reliably used to describe a change of profession is with seasonal employment (or a similar arrangement).

(29) **a'au imu alete mu wainu.**

a' ~ au	i- mu	alete	∅	mu	wainu
ERG ~ 1.SG	PST.IPFV- <i>become</i>	<i>thus</i>	NPST.IPFV	<i>become</i>	<i>farmer</i>

“I will be a farmer.”

With this in mind, to convey the intended meaning of (28) under the context established, we will simply use the unmarked future.

(30) **a'au mu akatewi.**

a' ~ au	∅	mu	akatewi
ERG ~ 1.SG	NPST.IPFV	<i>become</i>	<i>soldier</i>

“I will be a soldier.”

A present tense reading of this is unlikely on account of the verb **mu**. The process of becoming something else requires a future reading.

Let's take another look at (24), but this time assume that we do not have the previously established context provided by the question. Using the perfective version of the **iwa alete wa** construction (wherein the first verb remains imperfective, and the second verb inflects perfectly), we would expect the following:

(31) #**a'au ikamai alete akamai tiname.**

a' ~ au	i- kama	alete	a- kama	tiname
ERG ~ 1.SG	PST.IPFV- <i>send</i>	<i>thus</i>	NPST.PFV- <i>send</i>	<i>letter</i>

“I will send a letter.”

But without the previous context, we cannot consider this an expected or habitual event, meaning the explicit future is unsuitable here. What can we do then? We could use the unmarked future, but that could be easily misinterpreted as recent past. One relatively straightforward solution is to explicitly introduce a future deadline with the particle **na**.

(32) **a'au na kai akamai tiname.**

a' ~ au	na	kai	a- kama	tiname
ERG ~ 1.SG	DEADLINE	<i>today</i>	NPST.PFV- <i>send</i>	<i>letter</i>

“I will send a letter sometime today.”

Contrasting implicit vs explicit future

So far we've been judging felicity and correcting examples felicitous in only one of the two forms of future tense. In this section, we will look at paired examples of each construction, where each pair describes a similar event in relation to particular semantic material.

(33) Semantic material: sensation, intuition

a. **nula na masa 'e ti iteuteukeu alete teuteukeu.**⁵

nula	na	masa	'e	ti	i- teuteukeu	alete	∅
<i>body</i>	DEADLINE	<i>sun</i>	REL	<i>rise</i>	NPST.PFV- <i>rot</i>	<i>thus</i>	NPST.IPFV
		teuteukeu					
		<i>rot</i>					

“My body will be deteriorating soon (since I’m so old already).”

Or: “My body will be deteriorating by sunrise.” (literal)

a. **a’au umu ki pa ulunata.**

a’ ~ au	u ~ mu	ki	pa	u ~ lunata
ERG ~ 1.SG	NPST.PFV ~ <i>embody</i>	<i>sickness</i>	<i>now</i>	NPST.PFV ~ <i>die</i>

“I’ve fallen ill and will be dead soon.”

(34) Semantic material: plants, growth

a. **tu’ase iwueli alete wueli.**

tu’ase	i- wueli	alete	∅	wueli
<i>grain</i>	PST.IPFV- <i>grow</i>	<i>thus</i>	NPST.IPFV	<i>grow</i>

“The grain is growing again.” (whereas previously, it was neglected)

b. **tu’ase na pa uwueli.**

tu’ase	na	pa	u ~ wueli
<i>grain</i>	DEADLINE	<i>now</i>	NPST.PFV ~ <i>grow</i>

“It’s time for the grain to grow (it is necessary).”

Or: “The grain must be grown by now (at the latest).”

Stative verbs

Future tense of stative verbs is formed by using **siha** ‘to happen’ as an auxiliary verb placed before the nonpast form of the main verb. Conveniently, stative verbs consistently work this way, meaning there are *many* fewer factors to think about in conveying a particular message.

(35) **a’au siha nale.**

a’ ~ au	siha	∅	nale
ERG ~ 1.SG	<i>happen</i>	NPST.IPFV	<i>be.sad</i>

“I will be sad.”

⁵The explicit future is not strictly necessary here, on account of the duration provided. However, I have used it here because it fits the context of the sentence. If context or additional periphrasis makes both constructions valid, explicit future can be used for stylistic purposes, or to highlight the expectation.

(36) a'au siha laika.

a' au siha ∅ laika
ERG 1.SG *happen* NPST.IPFV *be.lonely*

“I will be lonely.”

Coda

In this article, I introduced a large portion of the foundational grammar of Ahale. I got to describe how such a small system can still be quite expressive, and show nuance even with the limited morphology available. I briefly introduced direct-inverse systems to give a better understanding of the relationship verbs have to other concepts, even though it didn't make much of an appearance in the majority of the article. And then finally we looked at future tense in great detail, showing many different ways to work around the lack of a morphological future or even a dedicated present tense.

There's a lot of that went into the original version of this article that didn't make it into the final cut. I hope to be able to share those things with all of you in one form or another, but this will have to do for now. I would have loved to be able to give more details on other moods, which didn't come up at all except for one interrogative sentence used to transition between sections. In the original form of this article, I had wanted to discuss common derivational morphology as well, but for the sake of clarity and also length it had to be removed. And finally, I would have loved to be able to include more examples, and possibly showcase the direct-inverse system more. This didn't end up happening, as I wanted to make sure that all of the examples provided had a specific and clear purpose, which I felt the inversion may distract from.

I'm so glad that I was able to share my language with all of you! If you have any questions, or want more details, you can find me on Discord at [Pancake#7400](#). I'll gladly answer as many questions as I can!



19

Noun Incorporation in Mā Sip

by Lysimachiakis

Argument Raising & Valency

Dadēsi fe vōha tap mā ni!

AUG.RDP~enjoyment ATTR language make NMLZ RLS
'I love conlanging!'

Mā Sip is a language that I started to work on during the 8th Speedlang Challenge in March 2021. I wanted to step outside my comfort zone in conlanging, and so I set out to make a naturalistic language that is primarily isolating and analytic. I have so often made languages that are agglutinating or fusional, and I wanted a change of pace to help me better appreciate the intricacies of analytic systems.

This article will focus on patterns of noun incorporation in Mā Sip, exploring their forms and their functions, with special emphasis on their role in the larger verbal construct, and their implications on wider discourse topics.

What is Noun Incorporation?

Noun Incorporation (NI) refers to a process that occurs in many languages across the world in which a noun is made to be part of the verbal unit (whatever that may look like in a given language), for lexical distinction or, more often, for syntactic and pragmatic purposes. This process is intimately linked to the concept of argument structure and most languages that make use of NI do so in order to highlight the arguments that are most salient, most important to the topic at hand.

Marianne Mithun describes NI using an implication hierarchy. In her research, she claims that there are four distinct types of NI, and if a language has a higher type, then it will have all of the lower types as well (Mithun 1984).

Type 1 refers to simple lexical compounding. This would be any instance where a noun is incorporated into a verb in order to describe a specific action. As Mithun says, “[c]ompounding

is done for a reason. Some entity, quality, or activity is recognized sufficiently often to be considered name-worthy in its own right” (p848). Type 1 NI takes the object of a transitive clause and incorporates it into the verb, creating a new intransitive construction. English doesn’t incorporate readily, but one could imagine an analogous example such as ‘food-shopping’, in which the action – shopping for food – is deemed significant enough to merit its own lexical item.

Type 2 refers to a type of lexical compounding that also impacts the role marking of other arguments of the clause. Mithun describes Type 2 as very similar to Type 1 on the surface, in that both incorporate the direct object into the verb. However, instead of removing an argument and decreasing the valency of the verb phrase, Type 2 then raises some oblique argument to the direct object role after the original object is incorporated: “When a transitive V incorporates its direct object, then an instrument, location, or possessor may assume the vacated direct object role. When an intransitive V incorporates its subject, another argument may be advanced to subject status” (Mithun 1984, p856). Mithun argues that this type of NI is significant because its role, unlike Type 1, is more focused on discourse: “The result is a lexical device for manipulating case relations within clauses” (p859).

Type 3 refers to NI used for discourse manipulation above all else. With Type 3 NI, background information and other things known between the speaker and the listener can be incorporated into the verb as a means of defocusing that information and, by contrast, highlighting the non-incorporated elements. Interestingly, Mithun notes that the vast majority of languages that make use of Type 3 NI are polysynthetic in their composition.

Lastly, Type 4 refers to the incorporation of classificatory nouns. “A relatively general [noun] stem is incorporated to narrow the scope of the [verb], as in Type 3; but the compound stem can be accompanied by a more specific external [noun phrase] which identifies the argument implied by the [incorporated element]. Once the argument has been identified, the general, incorporable [noun] stem is sufficient to qualify [the verbs] involving this argument in subsequent discourse” (p863).

Mithun summarizes the four types succinctly: “While all types result in a backgrounding of the [incorporated noun], Type 1 serves to reduce its salience within the [verb], Type 2 within the clause, and Type 3 within a particular portion of the discourse” (p862). Type 4 is an extension of Type 3, in that its role is in discourse, and it is used for backgrounding information throughout the entire discourse by easily incorporating a simple classificatory element.

Incorporation in Mā Sip follows Mithun’s hierarchy with regards to Type 1 and Type 2 NI, but it lacks Type 3, and uses what could be considered a variant of Type 4 classificatory incorporation that functions more similarly to Type 2’s valency changing. In Mā Sip’s notational system, the types of NI are broken up into different classes and are differentiated along slightly different lines than in Mithun’s work, though the end result is quite similar. The following sections will go into depth on each class of NI in Mā Sip, providing examples and context along the way to help demonstrate and showcase this highly productive feature of the language. Mā Sip is still a work in progress, and some of these features may be liable to change as I continue to develop the language.

Sentence Structure in Mā Sip

Mā Sip, being an analytic language, maintains a relatively rigid word order in its sentences. Most sentences will have a subject (S), though this can be dropped in certain contexts. All sentences must have both a verbal identifier (VID), a pre-verbal particle that typically marks the mood of the clause (most often, realis **ni** vs. irrealis **ba**), and a verb (V). The positioning of objects depends upon the animacy of the object; high animacy patients (P) appear between the subject and the VID, while low animacy objects (O) appear after the verb, with a prepositional particle **a**.

- Intransitive: S VID V
- Transitive, High Animacy: S P VID V
- Transitive, Low Animacy: S VID V a O
- Ditransitive: S P VID V a O

The only thing then that can occur after a VID is the verb. Multiple verbs can stack up in the verb phrase using an infix linking morpheme /h/. Because word class is typically weak in Mā Sip, some nouns can function as verbs and some verbs can function as nouns with no additional morphological marking. How, then, can one tell that what is happening in the language is indeed noun incorporation? The answer lies with /h/: when two verbs are present in the verb phrase, the rightmost (typically function-focused) verb takes the linking infix and the main lexical verb does not; when a noun is incorporated, however, the following verb takes no overt marking, and instead seems to function as a type of compound with incorporated noun. We know a noun has been incorporated if it occurs between the VID and the V without a linking /h/.

Class I: Object Incorporation

The most common type of incorporation in Mā Sip is simple object incorporation, hereby referred to as **Class I (CI) incorporation**. This involves the direct object of a transitive clause being incorporated into the verb, resulting in the creation of an intransitive verbal unit.

(1) Sai ni nam hunã ba nul.

sai ni nam hunã ba nul
1.SG RLS food buy REL yesterday

“I went food shopping yesterday.”

lit. “I food-bought yesterday.”

This type of incorporation is most commonly used to define a recurring, commonplace action. When used in a main clause, this is almost always its purpose: to defocus the object because the verb-object pairing represents a distinct unified meaning. In this sense, CI incorporation can be seen as a type of antipassive construction, due to its defocusing nature.

Such constructions, however, are also preferred in relative clauses due to constraints on argument structure within such clauses. Generally speaking, the only role that may be relativized in a clause is the subject. As a result, valency-changing operations are rampant in relative clauses. Intransitive constructions are strongly preferred whenever possible. This pressure is thought to be because of the syntax of Mā Sip utterances, which places subjects before a class of verb markers called **verbal identifiers** (VID); however, in main clauses, animate direct objects are also found in this position. This can lead to ambiguity, and avoiding this ambiguity is thought to be the rationale for avoiding complex relative clauses.

(2) a. **Mhina ikpi ni nafti.**

Mhina ikpi ni nafti
Mhina dog RLS wash
 “Mhina washed the dog.”

b. **Mhina ba ikpi nafti pho ni wah.**

Mhina ba ikpi nafti pho ni wah
Mhina REL dog wash PFV RLS fall.asleep
 “Mhina, who washed the dog, fell asleep.”

The object **ikpi** ‘dog’, as seen in (2a), occurs in the animate object position, before the VID but after the subject. When the noun is incorporated, it moves to occur between the VID and the verb. In example (2b), where the incorporated phrase is relativized, its position then becomes pre-VID, and can be ambiguous.¹

The restrictions on relative clauses exist because of ambiguity of referents if a normal object structure were to be used.

(3) **Mhina ni nafti a kā.**

Mhina ni nafti a kā
Mhina RLS wash ACC car
 “Mhina washes the car.”

(4) a. ***Mhina ba nafti a kā ni dapai.**

Mhina ba nafti a kā ni dapai
Mhina REL wash ACC car RLS cut
Intended: “(i). Mhina, who washes the car, cuts (something).”
Or: “(ii). Mhina, who washes, cuts the car.”

b. **Mhina ba kā nafti ni dapai.**

Mhina ba kā nafti ni dapai
Mhina REL car wash RLS cut
 “Mhina, who washes the car, cuts (something).”

If the base sentence in (3) were to be made into a relative clause, one might think, looking at main clause structures in Mā Sip, that (4a) would be an appropriate option. However, this is dispreferred and would sound downright strange to most speakers. Because the relative clause has an object **a kā** ‘the car’ which appears post-verbally, the position of object **kā** now overlaps with the animate object position of the main clause. This results in some ambiguity, with translations (i) and (ii) both being possible interpretations. Of course, in practice, this is likely to be clearer, as **kā** is obviously an inanimate object and would not appear pre-verbally. However, the awkwardness of the construction is what ultimately guides the language to prefer incorporation instead, as in (4b).

The CI incorporation construction is also frequently used as the basis for forming agent nouns from verb phrases. This is accomplished by relativizing the incorporated phrase and set it modifying an ambiguous ‘one’-type noun.

¹For this reason, auxiliary/linking verbs are often preferred in relative clauses as they work to clearly delimitate the end of the relative clause.

(5) **ī ba kā nafti**

ī ba kā nafti
one REL *car* *wash*

“carwasher; one who washes cars”

(6) **ī ba pase duk**

ī ba pase duk
one REL *cake* *cook*

“cakebaker; pastry chef”

CI incorporation is also preferred when nominalizing verb phrases using the postpositional nominalizing particle **mā**. In these constructions, the verb **siwat** is often dropped.

(7) **Dāsi fe bihās alē mā Nōmi la ni (siwat).**

dāsi fe bihās alē mā Nōmi la ni siwat
enjoyment ATTR *phone* *write* NMLZ *Nōmi* LOC RLS EXIST

“Nōmi likes texting.”

lit. “At Nōmi there exists enjoyment of phone-writing.”

CI incorporation can be used to form a more true antipassive: a generic object pronoun **poi** is incorporated, the original object is lost, and the subject is focused by contrast. An indefinite 3rd person inanimate pronoun is incorporated to satisfy grammatical restrictions on isolated transitive verbs.

(8) **Sai ni poi olga.**

sai ni poi olga
1.SG RLS 3.INAN *read*

“I am reading.”

Instrument incorporation is a common feature of CI incorporation as well. In this construction, the instrument is incorporated into the verb phrase to highlight the manner. This is quite common with some less-defined verbs, such as **dapai** ‘to cut.’

(9) a. **Duk dok ni bak dapai a kom.**

duk dok ni bak dapai a kom
baker RLS *knife* *cut* ACC *bread*

“The baker cut the bread.”

b. **Duk dok ni deknap dapai a kom.**

duk dok ni deknap dapai a kom
baker RLS *sharp.knife* *cut* ACC *bread*

“The baker sliced the bread.”

In these cases, as it is an oblique argument that is being incorporated, the original direct object is maintained. Some of these constructions, however, have become so commonplace

that the verbs have reduced forms that have been reanalyzed as a verbal derivational suffix that attach to these instruments to indicate their use. One such case exists with **dapai** ‘to cut’ above, resulting in **-(p)ai** ‘to cut with X.’ This results in now lexicalized forms, like **deknapai** ‘to slice with a sharp knife’ in (10a) below.

(10) a. **Duk dok ni deknapai a kom.**

duk dok ni dekna -pai a kom
baker RLS *sharp.knife* -cut.with ACC *bread*
 “The baker sliced the bread.”

b. **Helē ni elapai a pul.**

helē ni elap -pai a pul
woman RLS *small.blade* -cut.with ACC *fruit*
 “The woman peeled the fruit.”

Class II: Subject Incorporation

Though rarer than CI incorporation, **Class II (CII) incorporation** is the incorporation of subjects into intransitive verbs as a means of defocusing and backgrounding information. This can be seen particularly in subordinate clause constructions.

(11) **Oi ba amī laklān, fantu la xamak ni siwat.**

oi ba amī lak -lān fantu la xamak ni siwat
time REL *sky* *dark* -RDP 3.SG.FAM LOC *fear* RLS EXIST
 “When it gets dark outside, he gets scared.”
lit. “The time when it becomes sky-dark, at him there is fear.”

(12) **Ta² ba nela govi, ta sai ni hān lihah a ludō mā la.**

ta ba nela govi ta sai ni hān lihah a ludō mā la
if REL *rain* *fall* *then* 1.SG RLS *stand* FUT ACC *be.sad* NMLZ LOC
 “If it rains, then I will start to feel sad.”
lit. “If it rain-falls, I will stand at being sad.”

These expressions are far more common with inanimate referents, and this process is resisted the higher the animacy of the referent, as below in (13), which results in a somewhat unusual structure.

(13) **Taso ba makmi, ta mihip, ta Luha ni mai tixāt shiwa lihah.**

Taso ba makmi ta mihi -āp Luha ni mai tixāt shiwa lihah
Taso REL *be.killed* *if* DEM -CL.COL *Luha* RLS CL.AHM *try.to.forget* HYP
 “If Taso is killed, Luha will try to forget him.”
lit. “Taso is killed, if that, then Luha will try to forget him.”

²While usage of **oi** and **ta** are similar, they differ in one major regard: **oi** implies that such an event has happened before, and therefore the response is a known and expected thing; **ta**, on the other hand, implies that such an event has *not* happened before, at least not with the consequences explained in the main clause

In (13), because the subject that would typically be incorporated is a name, the incorporation is resisted. What results is that the bare clause is introduced and then qualified with **ta mihip** ‘*if that.*’ These kinds of roundabout structures, while wordier, allow for the named entity to still maintain salience in the clause.

However, such expressions are possible as a way of showcasing habitual actions with indefinite referents. This construction is always accompanied by some form of a location word, such as **isit** ‘*here*’ or **uk** ‘*there*’, the choice of which is typically determined by how salient the generality is (with **isit** preferred for generalities with a present-tense interpretation, and **uk** with a non-present interpretation).

(14) **Isit ba to gaza de ni.**

isit ba to gaza de ni
here REL *man* work DETR RLS

“Men work.”

lit. “(There is) here that man-works.”

(15) **Uk ba hōhohak unulki fu ni.**

uk ba hōhohak unulki fu ni
there REL *dinosaur* attack REFL RLS

“Dinosaurs fought each other.”

In (14) and (15) above, the verb is dropped and left implicit with the VID **ni** remaining. It is unclear exactly what the intended verb is in this construction; most agree that it is the existential **siwat** ‘*there is,*’ but it is far from a settled matter.

Class III: Classifier Incorporation

The last type of noun incorporation in Mā Sip is **Class III (CIII) incorporation**, in which classifiers are incorporated. Mā Sip makes use of nine different classifiers, which feature extensively in noun phrase constructions. They are consistently paired with numerals, determiners, and adjectives. The classifiers are as below:

Number	Form	Category	Abbreviation
1	mai	human adults	AHM
2	bau	human children	CHM
3	hai	animals	NML
4	kis	food	FOOD
5	mani	drink	DR
6	isis	flexible object	FLEX
7	okan	rigid object	RGD
8	ala	stars, celestial	STR
9	āp	collections, groups	COL

Table 1: Noun Classifiers in Mā Sip

Typically, these classifiers are used in noun phrases in order to classify the head noun and link it with demonstratives and numerals.

(16) **to mai aga**

to mai aga
man CL.AHM *three*
 “three men”

(17) **ikpi kinhai**

ikpi kin -hai
dog none -CL.NML
 “none of the dogs; no dogs”

These classifiers can themselves be incorporated into the same position as bare nouns. When they are incorporated as such, the result is an applicative-like construction. The classifier that best matches the most prototypical object of a given verb is incorporated and then an oblique element is raised to object position. Typically, the oblique that is raised is of similar or higher animacy than the object that is replaced by the classifier.

(18) **Tana te ofusku ni kis obin shiwa.**

tana te ofa-usku ni kis obin shiwa
friend FAM 3.SG.FAM.POSS-*girlfriend* RLS CL.FOOD *cook*
 “My friend cooked for their girlfriend.”
lit. “Friend food-cooked their girlfriend.”

(19) **Ēsai hes lumaba ni ala ēsai.**

ēsai hes lumaba ni ala ēsai
decider poor.person RLS CL.STR *decide*
 “The judge made a decision regarding the unfortunate person.”
lit. “The decider thing-decided the poor person.”

This construction is rather ambiguous and its interpretation is often left to context. In (18), the verb **obin shiwa** ‘cook’ would prototypically take an edible entity as its object; thus, **kis** ‘CL.FOOD’ is the classifier of choice for incorporation. This then elevates an oblique animate entity, **ofusku** ‘their girlfriend’, to object position. With CIII classifier incorporation, the raised element is almost always assumed to have been a **a recipient, a benefactor, a malefactor, or an accompanier**. The verb structure and semantics is typically enough to disambiguate what the intended applicative reading is, but two additional elements can co-occur with this construction to further clarify. Take the example in (19) above:

(20) a. **Ēsai hes lumaba ni ala suwēsai.**

ēsai hes lumaba ni ala sū-ēsai
decider poor.person RLS CL.STR *good-decide*
 “The judge ruled in the unfortunate person’s favor.”
lit. “The decider thing-decided good the poor person.”
Compare with: (21a)

b. **Ēsai hes lumaba ni ala ivēsai.**

ēsai hes lumaba ni ala ivah-ēsai
decider poor.person RLS CL.STR *bad-decide*
 “The judge ruled against the unfortunate person.”
lit. “The decider thing-decided bad the poor person.”
Compare with: (21b)

- (21) a. **Ĕsai hes ni Ĕsai a sū mǎ a lumaba bomi.**
 Ĕsai hes ni Ĕsai a sū mǎ a lumaba bomi
decider RLS *decide* ACC *good* NMLZ ACC *poor.person* *support*
 “The judge ruled in the unfortunate person’s favor.”
lit. “The decider decided goodness in support of the unfortunate person.”
- b. **Ĕsai hes ni Ĕsai a ivah mǎ a lumaba bǎ.**
 Ĕsai hes ni Ĕsai a ivah mǎ a lumaba bǎ
decider RLS *decide* ACC *bad* NMLZ ACC *poor.person* *disapprove*
 “The judge ruled against the unfortunate person.”
lit. “The decider decided badness in disapproval of the unfortunate person.”

In (20a), the true adjective **sū** is affixed onto the verb, where it reduces to **suw-** due to the V onset of the verb. The affix here serves to indicate the result of the verb is positive.³ Thus, a reading of ‘*decide in one’s favor*’ is the best interpretation of this construction. In contrast, (20b) uses **ivah** ‘*bad*’ to narrow the meaning, surfacing as **iv-** before a V-initial verb. Here, the verb could be defined now as ‘*to decide against someone.*’

Conclusion

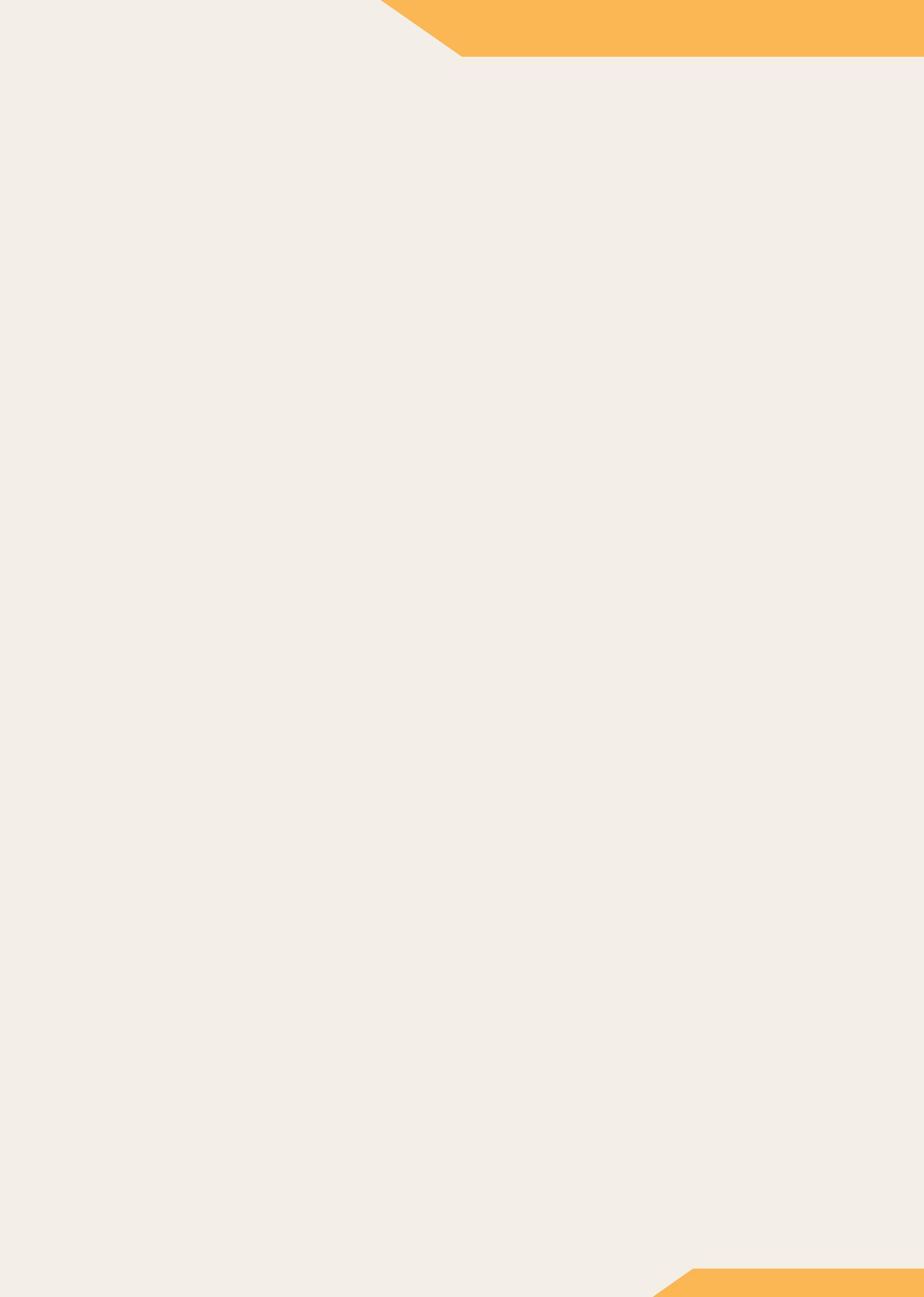
Noun incorporation is a productive feature of Mā Sip’s verb structure. Incorporation is used to manage discourse prominence, to create new lexical items, and to satisfy grammatical restrictions on relative clause structures. It is an important tool that I am able to use to keep the language mostly isolating and analytic while allowing for these to function in a variety of contexts and situations. It’s remarkably flexible in its applications. As I develop the language, I find more and more ways of using NI, and I am looking forward to exploring the topic more as I continue with my work.

I’m excited to continue work on Mā Sip! If you have any questions or comments, please feel free to reach out to me at [/u/Lysimachiakis!](mailto:/u/Lysimachiakis)

Peace, Love, & Conlanging!

- Lys

³Though this again could be considered ambiguous; if, for instance, public perception was certain of the man’s guilt, then **suwēsai** would imply that the result that was desired (conviction) was what was decided. In these cases, the word choice elsewhere in the sentence would clarify; in this case, usage of **lumaba** is enough to do so, as the word implies a great deal of sympathy for the referent.



by -Tonic

The many ways of eating apples

Some of the more unique features of Atłaq can be found among the so called “mode” prefixes. They do not encode one specific category but instead, depending on the prefix, signal some combination of modality, realization, polarity, and finiteness. Realization, as I call it, is a category that to my knowledge is unique to Atłaq. You can think of it as a kind of non-standard tense, but to really understand it we’ll need to talk a bit about how events are structured first. In this article I’ll describe the forms of the mode prefixes and how they are used, and at the end I’ll also briefly discuss their historical origins.

Their Forms

	Affirmative	Negative
Realized	n-	k-
Non-realized	∅-	
Irrealis	(a)tš-	ašk-
Infinitive	v(a)-	vak(u)-

Table 1: Atłaq mode prefixes

Every single verb in Atłaq will begin with one of the mode prefixes shown in table 1. There is some variation in these forms depending of the speaker’s age. For one, the allomorph **tš-** is the strongly dominating form of the affirmative irrealis, but **atš-** can still be found in formal contexts, especially among older speakers. There is also variation in the infinitives, but that will require some more explanation. A vowel-initial subject prefix will follow all mode prefixes except the infinitives. To avoid violating the phonotactics the allomorphs **va-** and **vak(u)-** of the infinitives are therefore used before consonants. This is only true for older speakers however. Among younger speakers the epenthetic **-a-** of affirmative infinitives of

consonant-initial stems has been *reanalysed* as the subject prefix **a**¹. This then spread to the other infinitive forms as can be seen in figure 20. Lately, it has become possible to replace the **a**- with other subject prefixes leading to “infinitives” like **vaqemaran** ‘that (s)he isn’t confident’. This last example also showcases the *leftward spreading of the feature* [\pm RTR], which in practice means that labials become uvularized (written with an underdot), velars and palatals become uvular, and vowels are retracted².

	Aff.	Neg.		Aff.	Neg.
-tšam	vatšam	vakutšam	-tšam	vatšam	vakatšam
-in	vin	vakin	-in	vajin	vakajin

Table 2: Infinitive forms of **-tšam** ‘eat’ and **-in** ‘drink’ for older (left) and younger (right) speakers. Note the epenthetic **-j**’s.

Their Functions

Realization

If you’re dancing, at which point is it true that you danced? Well, immediately after you start of course. It doesn’t matter if it was for one hour or one second, you still danced. But if you’re eating an apple, at which point is it true that you ate an apple? In this case it’s not enough to eat only part of it, you need to actually finish the apple to say that you ate it. Notice the difference: any sub-event of a “dance”-event counts as a “dance”-event but no sub-event of an “eat an apple”-event counts as an “eat an apple”-event. If some X-event contains a sub-event entirely located in the past that could also be described as an X-event, then that event is said to be *realized*, and the time when the event goes from being non-realized to realized is called the *realization time* of the event. So for “dance”-events the realization time occurs at the beginning of the event because it is realized as soon as it starts, while for “eat an apple”-events the realization time occurs at the end since it isn’t realized until the entire apple has been eaten. This is the basis of how the grammatical category of realization works in Atlaq. We can now start looking at some examples.

- (1) a. **Naxtsiššëz.**
 n- av- tsiššëz
 RZ- 1SG- *dance*
 “I am dancing/danced.”
- b. **Axtsiššëz.**
 Ø- av- tsiššëz
 NRZ- 1SG- *dance*
 “I will dance.”
- (2) a. **Naxtšami abël.**
 n- av- tšam -i abël
 RZ- 1SG- *eat* -3SG.INAN *apple*
 “I ate an apple.”

¹**a**- is an expletive subject prefix mostly used when an intransitive verb incorporates its subject, see example (19). It’s also identical to the 3S.INAN subject prefix, see example (18).

²**vaqemaran** is pronounced [ʋʳaqemʳɑβan]. Without spreading it would be ***vakimaran** [ʋʳakimʳɑβan].

b. **Axtšami abël.**

∅ - av - tšam - i abël
NRZ - 1SG - eat - 3SG.INAN *apple*
“I am eating/will eat an apple.”

A realized “dance”-event can occur either in the past or the present while a realized “eat an apple”-event can only be in the past. So far so good. But consider the following examples.

(3) a. **Naxtšamëmm abël.**

n - av - tšam - m̄m abël
RZ - 1SG - eat - 3PL.INAN *apple*
“I ate apples.”

Or: “I am eating apples (and I have finished at least one).”

b. **Axtšamëmm abël.**

∅ - av - tšam - m̄m abël
NRZ - 1SG - eat - 3PL.INAN *apple*
“I will eat apples.”

Or: “I am eating apples (but I haven’t finished one yet).”

How can we explain this behaviour? Well, assuming the apples are eaten sequentially, we can think of the entire event as consisting of a number of sub-events of eating individual apples. Those sub-events counts as “eat apples”-events, but any smaller sub-event — such as only taking a single bite of an apple — does not. Therefore the realization time occurs after eating exactly one apple, explaining the translations of the examples in (3)³. The realization time can occur not only at the start or at the end, but in **the middle** of an event as well⁴!

So you can see how realization has some similarities to standard tense. Events located entirely in the past are always realized and those in located entirely in the future are always non-realized. However, currently ongoing events can be either realized or non-realized depending on the inherent structure of the event in question⁵.

It’s also possible to talk about eating apple(s) without having the realization time be after exactly one apple is eaten. This is done by noun incorporation.

(4) a. **Navabëlëtšam.**

n - av - abël - tšam
RZ - 1SG - *apple* - eat
“I was/am eating apple.”

³It’s probably best to think of the Aṭṭaq plural as “not explicitly singular” here. Even after eating only a single apple the verb will be realized, and noun phrases with the determiner **aht** ‘no, zero’ or mass nouns may take plural agreement.

⁴This is why we can’t just say that realized events are either past events or present atelic ones. For telic events, characterized by having a final change of state, the realization time must be at that change of state. As we have just seen however, just because an event is atelic doesn’t mean that its realization time occurs at the start.

⁵If you’re familiar with (neo-)Reichenbachian theories of tense and aspect, we can describe it as follows: while both standard tense and realization are the relations between speech time and something else, for tense it’s the relation to reference time, but for realization it’s the relation to realization time (which is a time included in the event time).

b. **Avabëlētšam.**

∅ - av - abël - tšam
 NRZ - 1SG - *apple - eat*
 “I will be eating apple.”

It’s no longer about any specific apple, but about the **general activity of apple-eating**. Essentially, **-abëlētšam** ‘eat apple’ functions like a single, dance-like verb, cf. example (1). A specific quantity of apples can then be specified in an adjunct headed by the relational noun⁶ **ana** ‘friend, with’.

(5) **Navabëlētšam anajaa tsivěš.**

n - av - abël - tšam ana - aa tsif =š
 RZ - 1SG - *apple - eat* with - 3SG.INAN.ADC one.INAN = PN
 “I was/am eating an apple.”

Unlike example (2a), example (5) can be used with past tense reference without entailing that the apple was fully eaten.

There are a few extra cases where the non-realized forms are used that are worth mentioning. General truths that aren’t limited to any particular time is one of these.

(6) **Haman-š iman.**

Haman =š ∅ - i - man
red:star = PN NRZ - 3SG.AN - *be.red*
 “Mars is red.”

Direct orders can also be formed with the non-realized.

(7) **Isasi-ntsa banaana.**

∅ - is - as - i =ntsa banaana
 NRZ - 2SG - *give* - 3SG.INAN = 1SG.BEN *banana*
 “Give me a banana!”

Irrealis

The irrealis forms have various uses, but I will only briefly mention the main ones here. It can mark a general **possibility but not certainty** of some event occurring.

(8) **Tšayurrulëhiits.**

tš - av - urrul - hiits
 IRR - 1SG - *genital - be.cut*
 “I might be sterile.”

⁶A relational noun is essentially a noun that functions as an adposition. Atlaq does not have regular adpositions.

It can also be used to form polite requests, cf. example (7).

(9) **Tšisasi-ntsa banaana.**

tš- is- as -i =ntsa banaana
IRR- 2SG- give - 3SG.INAN = 1SG.BEN *banana*

“Could you give me a banana?”

Context: The speaker is making a request.

Lastly, it’s used in polar questions.

(10) **Tšixxusët?**

tš- is- xus- t
IRR- 2SG- dog- have

“Do you have any dogs?”

Infinitive

Infinitives (both affirmative and negative) come in three flavours: **independent** (unmarked), **imperfective dependent** (marked with **-a** after the verb stem), and **perfective dependent (-u)**. Independent infinitive phrases always denote non-specific and/or hypothetical situations. They can form arguments on their own or adverbials when introduced by a relational noun.

(11) **Naavëni vavann.**

n- i- avën- i va- vann
RZ- 3SG.H- want - 3SG.INAN INF- sleep

“(S)he wants to sleep.”

(12) **Banaa vavann axtšibbin.**

ban -aa va- vann Ø- av- tšibb- in
forehead - 3SG.INAN.ADC INF- sleep NRZ- 1SG- water- drink

“Right before going to sleep I drink water.”

Dependent infinitives always form adverbials, and can’t be headed by relational nouns. They are the main way to form conditionals (if-statements), in which case the matrix clause (the clause containing the infinitive phrase) is in the irrealis. The imperfective dependent infinitive is used when the event described by the matrix clause is temporally contained within the event of the infinitive phrase (basically a while-clause), while the perfective is used for when the event described by the matrix clause comes after the event of the infinitive phrase.

	Realis matrix clause	Irrealis matrix clause
Imperfective dependent	while	if (while)
Perfective dependent	after	if (after)

Table 3: Interpretation of dependent infinitives

(13) **Vinuj tšistłarrën.**

v- in -u -j tš- is- tłarrën
 INF- *drink* -PFV - 3SG.INAN IRR- 2SG- *die*

“If you drink it, you’ll die.”

(14) **Vinuj nitłarrën.**

v- in -u -j n- i- tłarrën
 INF- *drink* -PFV - 3SG.INAN RZ- 3SG.H- *die*

“After (s)he drank it, (s)he died.”

(15) **Vakiisa tšissivannëq.**

va- kiis -a tš- is- si- vann- q
 INF- *lie.down* -IPFV IRR- 2SG- CAUS- *sleep* -REFL

“If you lie down, you’ll fall asleep.”

(16) **Vakiisa nassivannëq.**

va- kiis -a n- av- si- vann- q
 INF- *lie.down* -IPFV RZ- 1SG- CAUS- *sleep* -REFL

“While lying down, I fell asleep.”

Negation

For the negative irrealis, the negation should be thought of as applying before the irrealis meaning. Therefore, it is signaling possibility about the negation of an event, not negation of the possibility.

(17) **Aškitšaayunum̄m si Xutł izzur.**

ašk- i- tšaayun- u -m̄m si= Xutł izzur
 NEG.IRR- 3SG.AN- *gather* -PFV - 3PL.INAN 3SG.H.DET= NAME *plant*

“Xutł might not have gathered the plants.”

Not: “Xutł couldn’t have gathered the plants.”

There is no realization distinction in the negative.

(18) **Qay məhh.**

k- a- y məhh
 NEG- 3SG.INAN- *fall* *fruit*

“The fruit didn’t fall/isn’t falling/won’t fall.”

Any negative adverb or other negative constituent that implies that some event did *not* take place necessitates the use of a negative verb form. Multiple negatives do not cancel each other.

(19) **Katšibbëff Sahara errutt.**

k- a- tšibb- ff Sahara errutt
NEG- EXPL- *water-rain* NAME *never*

“It never rains in the Sahara.”

Not: “It’s not the case that it never rains in the Sahara.”

Not: “It’s never the case that it doesn’t rain in the Sahara.”

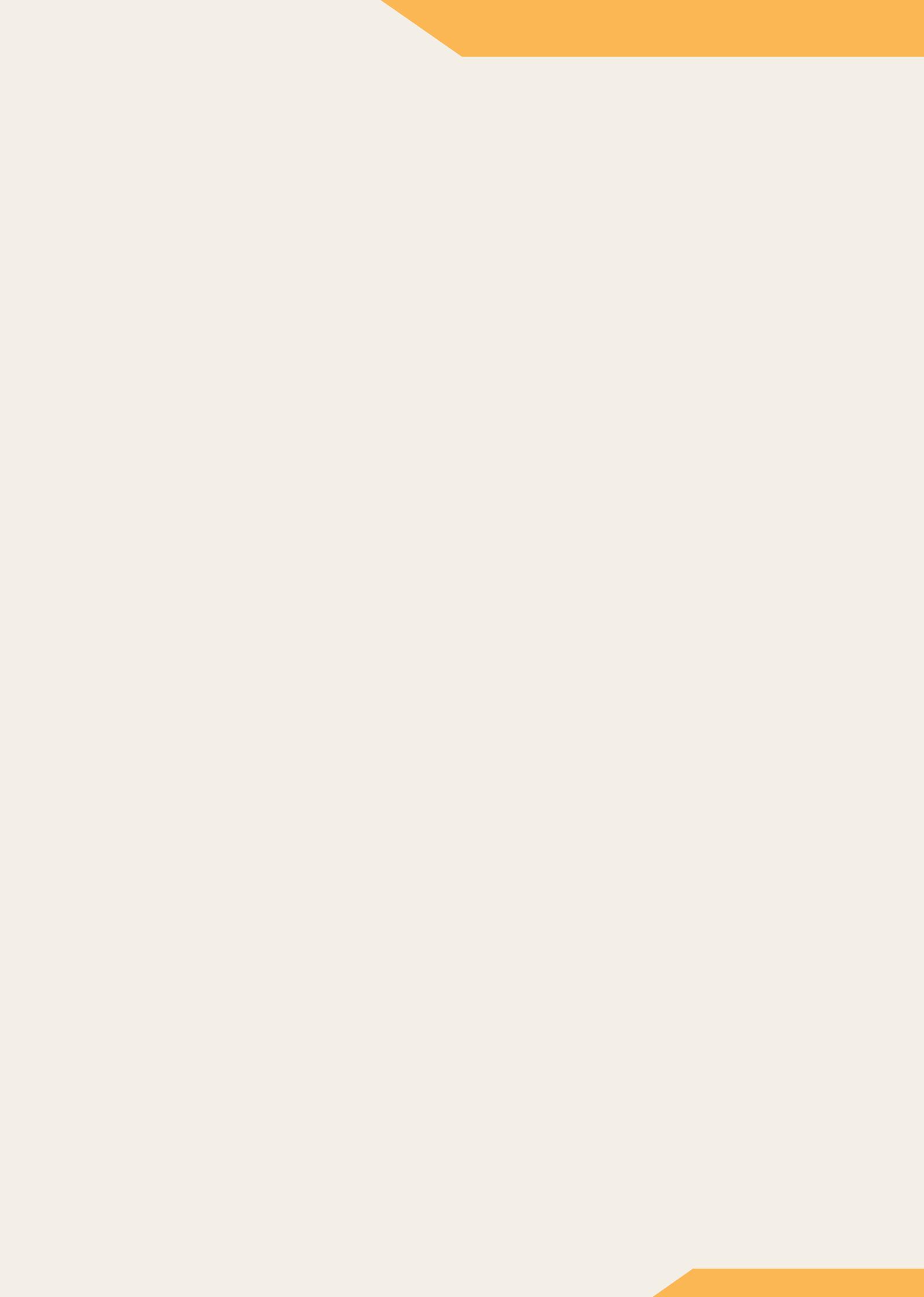
Their Origins

Atłaq is part of the Emaic language family and descends from **Proto-Emaic**, or PMA for short⁷. The Emaic family consists of five main branches labelled A to E, with Atłaq belonging to branch A. All of the mode prefixes (except possibly **n-**) can be traced back to PMA.

The negative **k-** and irrealis **(a)tš-** come from the PMA preverbal particles ***gu^h** and ***s^radⁱ** respectively. These particles may in reality have been auxiliary verbs, on account of their often modal semantics and some apparent vestiges of verbal morphology. The dropping of the *a* in **atš-** likely initially occurred due to analogy with the other prefixes consisting of a single consonant. The origin of **n-** is a lot more uncertain, but one possibility is that it’s related to the Proto-E negative morpheme ***lu:h** which probably also was a preverbal particle in PMA. In that case they must both come from PMA ***li [r/ɣ] (u)**. Initial ***l** is reflected as *n* in Atłaq, so with a bit of reduction you’d get the Atłaq morpheme. How to connect realization with negation might not be very obvious, but if the original meaning was something like “stop”, then both developments seem plausible. The infinitive **v(a)-** has a completely different source. Instead of a particle/auxiliary verb it comes from ***βa-**, a derivational prefix forming mostly abstract nouns.

The negative infinitive **vak(u)-** is transparently derived from the corresponding affirmative infinitive + the negative **k-** (and an epenthetic **-u-** that is no longer present for the plain negative). The formation of the negative irrealis **ašk-** is also pretty transparent, with the caveat that it most likely comes from a reduced ***atšëk-**.

⁷For more information, take a look at article 27 of *Segments* issue #1, where I described and discussed the phonology of PMA from an in-world point of view.



21

Akiatu's resultatives

by Akam Chinjir

A common way for my conlang Akiatu to encode results is with what I'll call a resultative complement. This is a word or phrase, right after the verb, that sets out the result of the event being described.

Here's an example:¹

(1) itamu apawasi taiku iruwa
Itamu melon cut two

“Itamu cut the melon in two”

iruwa ‘two’ is the resultative complement. It tells us that as a result of Itamu’s cutting, the melon was two, which is to say, it was in two pieces.

This article is about resultative constructions like this, both the forms they can take and the ways they interact with some other bits of Akiatu grammar, especially aspect and valency. There’s also a short account of the in-world history of Akiatu resultative.

The main real-world inspirations for this area of Akiatu grammar are English and Mandarin. If you speak either of those two languages, at least some of the following will probably strike you as familiar. I’ve written about Akiatu’s resultatives before, primarily in a subreddit post called [Telicity in Akiatu](#). Lots of things have changed since then, some of them quite significant.

The resultative construction

Before looking at its parts in detail, I want to give a general sketch of Akiatu’s resultative construction. I’ll use this example:

¹Transcriptions of Akiatu follow IPA conventions, except that an acute accent represents irregular stress (which often triggers vowel lengthening).

- (2) itamu mwi mawasa cí ahwita
Itamu REFL *hair* *set* *high*
 “Itamu put up her hair”

The three main parts of the construction are the verb **cí** ‘set, arrange,’ the complement **ahwita** ‘high,’ and the object **mwi mawasa** ‘her hair.’ Intuitively, the verb describes an event and the complement describes a state that results from the event. The object plays an important role tying the two together, since it must both undergo the event and end up in the state; in the example, Itamu’s hair is both the thing that she arranges and the thing that ends up high. I’ll refer to the object as the shared argument in the construction. (As we’ll see, the shared argument can actually end up the subject of the clause, it’s not always an object, syntactically speaking.)

A resultative construction like (2) always describes a single event. It’s not that there was an event of Itamu doing her hair, and this event caused a separate state of affairs, Itamu’s hair being up. The resulting state of affairs is better thought of as a part of the event as a whole.

One last point: Akiatu is otherwise normally SVO, but when a transitive verb occurs with a resultative complement, you get SOV constituent order.

Resultative complements

There are a few types of resultative complement, and I’ll start by walking you through the ones I know about so far.

True adjectives

Akiatu has a small, closed class of words that I call true adjectives. They differ from the other words you might consider adjectives in a few ways: they cannot head their own noun phrases or be used as predicates; when used attributively, they occur after the head noun rather than before it; and they can be used as resultative complements.

There are actually few enough true adjectives that I might as well list them:

- | | | |
|-----|---------------|--|
| (3) | ahiwa | ‘one, alone, solitary, whole’ |
| | ahwita | ‘tall, high, honoured’ |
| | aima | ‘bad, ugly, sick, shameful’ |
| | amaki | ‘good, beautiful, healthy, vigorous, auspicious’ |
| | hajji | ‘flourishing, lush, fun’ |
| | hatau | ‘big, important, great’ |
| | iruwa | ‘two, paired, in two pieces’ |
| | kaiwa | ‘black, dark, hidden, secret’ |
| | mwimu | ‘new, green, raw, fresh, naked, pure’ |
| | niku | ‘white, light, clear, plain, empty, naive’ |
| | papai | ‘many, much’ |
| | sakija | ‘red, bright, shining, obvious’ |
| | siwi | ‘small, young, subtle, unnoticed, nimble, sharp’ |
| | ukja | ‘short, low, lowly, demeaning’ |

(1) was one example with an adjectival resultative complement, here’s another:

- (4) kipaja itai jai mwiwu
 Kipaja rope make new
 “Kipaja made some rope”

There’s a general rule that nothing can fall between the verb and a resultative complement. Still, in an adjectival complement the adjective can be preceded by intensifiers such as **cai** ‘all, also, very.’

Resultative clitics

Many resultative complements are clitics: prosodically speaking, they are not independent words, but rather part of the same phonological word as the verb.

These clitics are distinctive in the following ways:

- they always have a CVCV shape
- they must immediately follow the verb, without even an intensifier like **cai** in between
- they attract stress to the final syllable of the verb to which they attach; this can trigger further alternations in the verb
- most of them are transparently related to regular Akiatu verbs, though often with a shift in meaning or phonological form

Here are some illustrative examples:

(5)	=haja	‘gone, used up’	(from aja ‘throw’)
	=hiku	‘free, unrestrained’	(from naiku ‘release’)
	=jahi	‘complete, fully made’	(from jai ‘do’)
	=jaku	‘set in place’	(from ijau ‘set’)
	=jasi	‘finished’	(from tijasi ‘tell, recount’)
	=kahu	‘broken’	(from makau ‘broken’)
	=kaku	‘worn out’	(from wukau ‘worn out’)
	=mawa	‘visible, right there’	(from mawa ‘find’)
	=rahu	‘satisfied’	(from hirau ‘satisfied’)
	=rati	‘tired, hungry’	(from urati ‘tired, hungry’)
	=sana	‘full’	(from sana ‘fill’)
	=taha	‘aware, awake’	(from nipatá ‘aware, awake’)
	=tima	‘ready’	(from jatima ‘prepare’)

The shifts in meaning here are mostly unsurprising, given that resultative complements must be basically stative. Some of the really common ones have also gotten somewhat bleached, semantically speaking. There’s one common pattern worth mentioning: if the base verb is transitive, generally the derived resultative complement will be passivised.

The shifts in phonological form mostly serve to satisfy the CVCV template for these clitics. There are a set of rules that mostly predict the form of a resultative clitic from that of the verb it derives from, though there are at least a few cases where these rules are not synchronically productive, and sound changes have treated the verb and the derived clitic differently. The most important such change is one that reduced some foot-internal **VhV** sequences, resulting in a single heavy syllable; resultative clitics did not fall within the scope of this change.

The general rule is that the clitic consists of the final two moras of the base verb, with consonants added as necessary to fill in the template; extra consonants are often **h**, though

they can be **k** before **u**. A puzzle I haven't fully resolved is what to do with words that have long vowels due to irregular stress patterns. The list above includes **taha** from 'nipatá,' which is one solution, but I'm not sure how general it is.²

Ideophones

Akiatu has lots of ideophones, and one place where they tend to turn up is as resultative complements. Here's an example:

- (6) itamu kau kaukai
Itamu fall IDEO:splayed_out
 "Itamu collapsed"

kaukai describes someone as having fallen and ended up on the ground with their limbs all splayed out—it's a result of a fall.

kaukai is plainly a reduplicated form of the verb **kau** 'fall' (alternations between **u** and **i** are common in Akiatu ideophones). I sort of imagine the repeated **kau** as a sonic representation of the fall, with the more abrupt **kai** as the impact; I suppose the **kau** could be repeated an arbitrary number of times, for long falls.

kaukai can only occur with **kau**, never with other verbs, regardless of semantics, and that's common with ideophones derived in this sort of way. But there are also ideophones that combine with verbs more freely. One is **hutu**:

- (7) itamu jaikati tau hutu
Itamu slaver hit startled
 "Itamu sucker-punched the slaver"

Ideophones are expressive, often accompanied by exuberance and gesture; (6) and (7) have a lot more flavour than would paraphrases using other sorts of resultative complement.

Destinations

Here's a very ordinary motion description:

- (8) hjaci kiwa i mikuwitaku
Hjaci go DAT ocean
 "Hjaci went to the ocean"

The destination argument here has the semantics of a resultative complement: (8) strictly entails that Hjaci did arrive at the ocean.

Like other resultative complements, destination arguments trigger SOV constituent order (see below):

²In my subreddit post on [Footing and stress](#) in Akiatu I said that irregular stress patterns are ignored when forming resultative clitics, but I'm wavering on this issue. (But that post is a good place to look if you want more details about this area of Akiatu phonology.)

- (9) aipa hjaci manai kiwa i mikuwitaku
Aipa Hjaci accompany go DAT ocean
 “Aipa accompanied Hjaci to the ocean”

A detail: **manai** ‘*accompany*,’ like most Akiatu verbs, cannot directly take a destination complement, which is why it must be followed by **kiwa** ‘*go*’ here. I’ll come back to this issue below; for now you can think of **manai kiwa** as a sort of compound verb.

Other dative phrases

There’s at least one other context in which postverbal dative phrases can serve as resultative complements, when you’re talking about transformations, one thing turning into something else:

- (10) kija hjaci kijau i aica
and_then Hjaci transform DAT demon
 “And then Hjaci turned into a demon”

The argument of a postverbal dative can also be a nominalised clause:

- (11) itamu jaimu i apai ki wamu sí
Itamu swim DAT rain DET come descend
 “Itamu swam until it started raining”

Though this bounds the event being described in much the same way as does a resultative complement, I would not call this a resultative complement: it introduces a second, independent event; there’s no requirement that it share an argument with the main verb; and it does not trigger SOV order.

I’m a bit inclined to think that you can get genuine resultative complements from nominalised verbs, but I so far have not come up with any examples.

You can also put an explicit spatial or temporal measure in a dative complement, but this does not give you a true resultative:

- (12) itamu pija i kuti ahiwa
Itamu run DAT day one
 “Itamu ran for a whole day”

Again, there’s no shared argument, and in a transitive example the constituent order would normally be SVO.

The shared argument

An Akiatu resultative construction always includes a constituent that’s a semantic argument of both the verb and the complement—something that both underwent the event described by the verb and ended up in the state described by the complement. That means that

Akiatu has no direct analogs of a sentence like “He sang the child to sleep”—since “child” is a semantic argument only of “sleep,” not of “sing.”

The shared argument need not be overt. Akiatu mostly prefers silence to third-person pronouns, so lots of arguments get dropped. They still get interpreted, however, and can still serve as the shared argument in a resultative construction. I’m pretty sure you can also drop some generic objects, though I’m less sure how common this, and I doubt that a dropped generic argument could be the shared argument in a resultative construction.

The shared argument is always a patient, by which I mean it is always something being described as undergoing a change. This need not be a momentous change. Changes in location count, as do changes in status or visibility, so this is a pretty broad conception of what counts as a patient.

Here are two examples to illustrate this point:

(13) *hjaci hakjáku acitau =jaku*
Hjaci bonfire bless =set
 “Hjaci blessed the bonfire”

(14) *itamu tamwipaku mawa =mawa*
Itamu canoe look_for =appear
 “Itamu found the canoe”

The bonfire undergoes a change of status when it gets blessed; the fact that it’s properly achieved this new status is expressed by the complement **jaku** ‘*set in place, established.*’ The canoe changes only in relation to Itamu’s knowledge of where it is. This is enough for Akiatu’s resultative construction.

The shared argument cannot be the agent argument of the verb, so you can’t do something like this:

(15) **itamu pija =rati*
Itamu run =tired
Intended: “Itamu ran till she was tired”

This is so even when it’s plain that the agent of the verb also undergoes a change. (To make this example grammatical, you’d add a path complement, as in (23).)

The word “agent” here is actually a bit unfortunate, because on this point Akiatu does not distinguish agents strictly speaking from various other sorts of causal initiator: if a rock hit you on the head, it would be an ‘agent.’ I hope that’s not too confusing.

In one common pattern, the shared argument in a way measures out the event that’s being described. Consider this example:

(16) *itamu jisaka píwa =haja*
Itamu fish eat =away
 “Itamu ate the fish”

In this sort of context, the complement **haja** ‘away’ tells us that the object is fully consumed or used up. It seems to follow that when the fish is (for example) half eaten, the event is half finished; and when the fish is fully eaten, the event is fully finished.

For this to work, the sentence must be referring to some specific quantity of fish. That can be settled by an overt quantifier. Other cases can get quite subtle, but a lot of the time the object will be interpreted as definite, even though there won’t normally be any more direct indication of definiteness.³ That’s why I translate **jisaka** as “the fish” in (16).

If the verb has two non-agent arguments, both must be shared with the complement. Here’s a common sort of example:

- (17) itamu tamwipaku wata =mawa
Itamu canoe see =appear
“Itamu caught sight of the canoe”

The complement here should be understood to mean that the canoe appeared to Itamu: the complement shares not only what you might think of as its regular patient (or theme) with the main verb, but also an oblique argument.

This cannot work if the complement is an adjective, ideophone, or dative phrase, since these cannot take an additional oblique argument. It follows that when a verb has two non-agent arguments, it can only occur with resultative clitics.

When the verb is ditransitive, both the agent and one of the shared arguments will precede the verb, and the other will follow the resultative complement; it must be preceded by a semantically appropriate preposition. Here’s an example:

- (18) itamu ajjiki utika =haja a jaikati
Itamu island hunt =away LOC slavers
“Itamu hunted the island clear of slavers”

utika ‘hunt’ is one of Akiatu’s many verbs that allows a locative complement to be promoted to a core object. **ajjiki** ‘island’ is still only an oblique argument of the resultative complement: the result here is that the slavers were away from the island. (Admittedly that’s a bit euphemistic: the sentence would normally be interpreted to mean that Itamu killed the slavers, though admittedly **haja** could be taken to mean just that they ran away.)

Cases that involve promoted locative arguments can seem very strange if you try to translate them mechanically into English. Here’s one such case:

- (19) taukwa apai sí =sana
hole rain fall =full
“The hole fell full with rain”

³Akiatu does have a sort of definite article, but its use is quite restricted, and you would not expect it in a sentence like (16).

That translation's not really serious, but I trust you get the point: of course it's the rain that fell, while **taukwa** 'hole' is a promoted locative argument of **sí** 'fall.'

The rule that transitive resultative clauses be SOV has one sort of partial exception: sometimes the object is split, occurring partly before the verb and partly after the resultative complement. You often get this with quantified indefinite noun phrases, which normally put only the quantifier before the verb:

- (20) itamu pai píwa=haja jisaka
Itamu three eat =away fish
 "Itamu ate three fish"

The deictic particle **watí** (which would come at the end of the noun phrase) also often stays after the complement. This can happen even when the object is otherwise dropped:

- (21) itamu píwa=haja watí
Itamu eat =away DEIC
 "Itamu ate it up"

Object splitting like this never occurs when the shared argument ends up as the verb's subject, and it only occurs when the resultative complement is of the clitic sort (and not, for example, an adjective).

Cases where an object has gotten split are easy to distinguish from cases where a separate full argument has remained after the verb, because you'll need a preposition in the latter case. For example, without the preposition in the following example, it would be tempting to interpret **jaikati aituwi** as a discontinuous noun phrase with a possessor, 'the slaver's leg':

- (22) itamu jaikati tau=kahu a aituwi
Itamu slaver hit =broken LOC leg
 "Itamu broke the slaver's leg"

Path complements

Akiatu has a class of path verbs, that set out a path along which motion takes place or along which something is distributed in space; the most common examples are **wamu** 'come' and **kiwa** 'go.' These verbs can be used with resultative complements; they can also occur directly after another verb, in what you might consider a serial verb construction; and they can do both of those things at the same time.

(9) showed one example of this. Here's another:

- (23) itamu pija kiwa=rati
Itamu run go =tired
 "Itamu ran herself tired"

Contrasting (23) with (15), you can see that one function path complements serve is to allow the use of resultative complements with agentive intransitives like **pija** ‘run.’ The complement lets you code the verb’s agent also as a patient, which means it can then serve as the shared argument in a resultative construction.

That presumes that the argument of a path verb is a patient rather than an agent. This is deeply counterintuitive to many people, the thought being that it’s normally agents that come and go. But it’s cross-linguistically common to treat these arguments as patients, and that’s certainly what Akiatu does.

This use of path verbs is significant for a second reason, because only path verbs can take destination arguments, so you also get contrasts like the following:

(24) *itamu pija i ikjamí
Itamu run DAT river
Intended: “Itamu ran to the river”

(25) itamu pija kiwa i ikjamí
Itamu run go DAT river
“Itamu ran to the river”

(But (24) is grammatical with the meaning ‘*Itamu ran towards the river.*’)

A path complement cannot be used to introduce a whole new arguments, its patient must also be an argument of the preceding verb.

Both **wamu** ‘come’ and **kiwa** ‘go’ can be used with fairly bleached meanings, something like ‘become.’ (They can also be used as main verbs in a similarly bleached way.) Sometimes other path verbs can add a particular nuance. For example, **pai** ‘return’ can be used to describe a result as a return to a prior state:

(26) itamu suwasu pai mwimu
Itamu sleep return new
“Itamu slept and was refreshed”

Sometimes it look like a path complement is serving on its own as a resultative complement:

(27) itamu kau sí
Itamu fall descend
“Itamu fell down”

What’s really happening here is that the destination argument of **sí** is being dropped because it’s clear from context: obviously Itamu fell to the ground.

Incidentally, to a large extent the difference between **kau** ‘fall’ and **sí** ‘descend’ is just that the latter is but the former is not a path verb. (**kau** is also mostly used for atypical or unexpected falls—you’d rarely if ever use it to describe rain, for example.)

In terms of the typology of motion description in particular, what all this means is that Akiatu can encode both manner and path with verbs, but there are no verbs that encode both.

Arguably, though, Akiatu still counts as what's been called a verb-framed language. That's because the verbs that are used to encode manner of motion are arguably peripheral, despite being verbs. They cannot on their own select destination or source arguments. Motion descriptions often omit manner entirely, or encode manner in an adverbial phrase rather than with a verb. And I think no manner of motion verb strictly entails motion through space, or indeed any analogous sort of change. For example, you can **satu miku** 'walk water'; this is treading water, and mostly doesn't involve moving from one place to another. In this expression, **satu** describes the bodily movements involved, not any movement. (Incidentally, I'd analyse **satu miku** as involving a covert locative applicative.)

Nonetheless, there are probably those who'd prefer to class Akiatu as a serialising language rather than a verb framed or satellite framed one, and I certainly don't think the above considerations tell decisively against such a classification.

Aspect

Akiatu's resultative construction interacts with both lexical and viewpoint aspect, so I'll discuss both issues. I wish I could also include what you might call phasal aspect, words with meanings like 'start' and 'finish,' but I don't yet have anything significant to say about that area of Akiatu grammar.

Lexical aspect

An event described by a resultative complement has an intrinsic result; to put the point another way, it is telic.

In what you might think of as the canonical case, the event is what's called an accomplishment. That means it includes both a process or activity stage and a resulting change of state. Many of the examples I've already give are naturally interpreted as describing accomplishments. Here's another:

- (28) tamwi hakjaru =haja
 wood burn =away
 "The wood burned away"

Out of context it's hard to be sure, but you might well expect this to describe an extended process of burning leading up to a state where the wood is entirely gone.

A particular feature of this case is that the change of state is concurrent with the process that it results from—so we can say that when the burning is half finished, the wood is half gone. It's in precisely this sort of case that we can say that the object measures the event being described.

Here's a different sort of example:

- (29) hjaci itamu tau =taha
 Hjaci Itamu hit =awake
 "Hjaci woke itamu up"

Now, waking Itamu up may have been quite a process (Itamu was a powerful sleeper). But it's not a process that's half finished when half of Itamu is awake, not even necessarily when Itamu is half awake: it could just as well a process that terminates when the intended change suddenly takes place all at once, or there may not have been an extended process at all.

With more context, you can get cases where it's clearly implied that an extended process preceded the change of state, but the resultative sentence itself does not actually say that the process took place. Anticipating the next section a bit, here's a case like that:

- (30) siwi jai hakjaru tamwi ||
 1PL CAUS *burn* *wood*
 tamwi hakjaru ma wí arai ||
wood burn and pass wait
 kijasi tamwi hakjaru =haja
finally wood burn =away

“We set the wood on fire, and waited while it burned. Finally it burned away.”

This describes a burning process, but the wood burning away is situated after that burning process, which is to say that the final resultative sentence here encodes only the final state, not the preceding process.

There are other sorts of case where normally you wouldn't want to distinguish between the event leading up to a change of state and the change of state itself. Inchoatives (which I'll come back to later) are a clear sort of case. Another involves verbs that usually describe events without salient duration:

- (31) hjaci tanija tau =kahu
Hjaci pot hit =broken
 “Hjaci broke the pot”

Here, possibly unlike (29), the verb **tau** ‘hit’ does not seem to encode anything other than the moment of contact.

Akiatu encodes many semelfactives using light verb constructions, and these can occur with resultative complements. You wouldn't normally think this implies a salient contrast between initial process and ensuing change:

- (32) itamu xacau hatau aja =haja
Itamu sneeze big throw =out
 “Itamu let out a great sneeze”

In all the cases I've discussed so far, the activity or process that brings about the result in question concludes when the result is achieved. That's not always the case:

- (33) kija itamu pija kiwa =haja
and_then Itamu run go =away
 “And Itamu ran off”

Itamu was away once she'd left the topic location; but the sentence certainly doesn't imply that she then immediately stopped running.

Viewpoint aspect

Viewpoint aspect situates a described event with respect to a topic time. I'll start with perfectivity.

You sometimes see people say that perfective descriptions present events from an external perspective, without regard to their internal structure. Since telic descriptions inherently do focus an event's internal structure, definitions like that would be very misleading here. So I'll start with another common sort of definition: a verb phrase is perfective just in case it situates the event it describes entirely within the topic time.

I still need to adjust this definition a bit. In cases like (30) and (33), it can be a subtle issue whether the event as a whole really gets situated within the topic time. Take (33). There was a running event that presumably continued after Itamu was away, and you wouldn't expect that event as a whole to be situated within the topic time. You could say that the sentence strictly only describes the initial segment of Itamu's running, up to the point when she was away; but this looks like perfectivity putting bounds on the event, so it can't be because the event has those bounds that it counts as perfective. Instead, I'll assume that a verb phrase can pick out some stage or transition in an event as especially salient, and then if the clause is perfective, that stage must fall within the topic time, even if the event as a whole does not.

Thinking of perfectivity this way can help understand cases like (30). You would normally expect **tamwi hakjaru=haja** '*the wood burned away*' to describe both the extended process of the wood burning and the point when it is eventually all gone; but in a sequence like the one in (30), it's only the final point that's clearly situated within the topic time. (No doubt the inclusion of **kijasi** '*finally*' helps here.)

In any case, it's a general rule of Akiatu grammar that a verb phrase is perfective whenever it includes a resultative complement, unless some higher operator forces a non-perfective interpretation. There are plenty of verbs that will normally get a perfective interpretation regardless, but with other verbs, a resultative complement will often be what makes the difference between a perfective and an imperfective meaning.

Here's an illustrative pair:

(34) itamu jaikati paja=jaku
Itamu slaver tie =set

"Itamu tied up the slaver"

(35) itamu paja jaikati
Itamu tie slaver

"Itamu was tying the slaver"

When **paja** '*tie, restrain*' is used on its own, it defaults to imperfective, as in (35); in (34), the resultative complement secures a perfective meaning.

(That's not the only way to get a perfective meaning with verbs that are imperfective by default. You can also use the other sorts of dative complement mentioned above. There's

also got to be some sort of perfective auxiliary for cases where neither sort of complement would be semantically appropriate. Currently I'm using **wí** for that purpose—it occurred in (30) above—but I'm not sure that'll stick. There are also verbs that are perfective by default. These can still take resultative complements when semantically appropriate, as we've seen above in examples using **tau** 'hit' and **aja** 'throw,' which are both verbs of this sort. But they'd be perfective even without the resultative complements.)

I so far know of two auxiliaries that can be used to generate an imperfective meaning even in the presence of a resultative complement: the progressive auxiliary **ijau** (otherwise 'sit'), and habitual **wicu** ('lie down'). These get used as follows:

(36) itamu jaikati ijau paja=jaku
Itamu slaver PROG tie =set
 "Itamu was tying up the slaver"

(37) itamu wicu jaikati paja=jaku
Itamu HAB slaver tie =set
 "Itamu would (often) tie slavers up"

(I've put the object before **ijau** and after **wicu**. My current thinking requires the object to precede **ijau**, but allows either order with **wicu**; but this is an area where the grammar's still a bit up in the air.)

In contrast to (34), (36) does not situate the point where the slaver has been fully restrained within the topic time. Indeed, it no longer entails that this point ever got reached. However, in contrast to (35), it does mention the event's endpoint—the description is telic, even though it does not entail culmination. With (37), it's more like the sentence describes an indefinite sequence of events, each of which did culminate; it's the sequence as a whole that's not bounded.

(Two tangents I won't follow up. First, I'm pretty sure **ijau** can also get an iterative interpretation, though I'm not at all sure under what conditions. And there's a third postural auxiliary, **aki** 'stand,' that I've always thought of as having a modal rather than an aspectual meaning, but maybe I should include it here.)

The **pija kiwa=haja** case is again interesting:

(38) itamu ijau pija kiwa=haja
Itamu PROG run go =away
 "Itamu was running off"

I'm inclined to say that in this case the point at which Itamu left the topic location might be included in the topic time, and in that case the difference between perfective and imperfective is a bit puzzling. Maybe in perfective **run-away** the start of the event also has to be included in the topic time.

I'll mention one other aspectual category, the perfect. Akiatu **mikwa** 'already' often results in a sort of perfect (unlike English "already" it does not imply that the event took place earlier than expected). With resultative constructions in particular, **mikwa** often gives you a resultative perfect, where the sentence specifically describes a resulting state. Like this:

- (39) jisaka cai mikwa píwa =haja
fish all already eat =away

“The fish has all been eaten”

In this example, the verb is no longer transitive: the agent has dropped out. That’s common with **mikwa** resultative perfects, and it’s not hard to understand why: the resulting state is a state of the object, and you’ll often be interested in the state of the object without especially caring about who put it in that state.

Which brings me to my next topic.

Valency

Akiatu resultatives interact with at least three sorts of valency alternation: passives, causatives, and inchoatives. I’ll discuss these in turn.

Passives

As we’ve just seen, agentive transitive verbs can often be used intransitively. This is especially common with resultative constructions, particularly when some other element of the sentence, like **mikwa** ‘*already*,’ puts additional focus on the resulting situation. (Two other adverbs with similar effects are **ihu** ‘*almost*’ and **kijasi** ‘*finally*.’)

Here’s another illustrative pair:

- (40) hjaci hakjáku acatau =jaku
Hjaci bonfire bless =set

“Hjaci blessed the bonfire”

- (41) hakjáku acatau =jaku
bonfire bless =set

“The bonfire was blessed”

Because Akiatu usually drops pronominal objects, these passives are systematically ambiguous, at least superficially; for example, (41) could in principle also mean ‘*the bonfire blessed them*.’ Context and good sense are usually enough to prevent misunderstanding; when they are not, postverbal **watí** will often surface as a remnant of the dropped object.

I have two reasons for thinking that in these cases it’s the transitive use that’s basic. First, this is an alternation that’s systematically available for transitive verbs with agentive subjects, but there are plenty of patientive intransitives that require an overt causative construction if they are to be used transitively. Second, the intransitive variants of these sentences still imply the presence of an agent. This can be seen in the use of certain adverbials, as in this example:

- (42) ijaisa makisa makisa aki naiku =hiku
bat upright RDP stand release =free

“The bats were let go on purpose”

It's not the bats who are described here as acting on purpose, but the unnamed agent who let them go.

As I've implied, these passives are only available for verbs whose subjects are agents, loosely speaking, though verbs whose subjects are experiencers or locations often undergo alternations that are superficially similar (which I'll discuss below).

It's a relatively recent decision to let this alternation be fully productive. Akiatu canonically also has a periphrastic passive formed with **wata** 'see,' I'm not yet sure how that relates to the passives I'm discussing here.

Causatives

I'm not talking here about the causatives you can form with **jai** 'do' or **hwati** 'give' with a full verb phrase as complement. But there are plenty of resultative constructions that have a causative sense, so I'll mention those here.

More or less any time the verb in a resultative construction is an agentive transitive, you'll have a causative of sorts: the subject acts, and as a result the object undergoes a change. Here though I'm thinking especially of cases where the verb doesn't obviously contribute anything except a causative sense.

This happens especially often with **jai** 'do':

- (43) hau marasi kja hau jai =rahu watí
1SG think C 1SG do =satisfied DEIC

"I think I satisfied them"

I've been ignoring the morphophonology of clitic complements, but maybe I should mention that because of the stress shift they require, **jai=rahu** actually surfaces as **járahu**, a single phonological word. The accent indicates irregular stress (though here what's actually irregular is that the verb has to form a foot with the first syllable of the clitic). Now, irregular stress can fall on the antepenult only in what were originally compounds, and most such compounds are synchronically transparent, since stress will tend to shift as they get thoroughly lexicalised. Still, it looks like an awfully short step from a syntactically derived form such as **járahu** to a morphologically unanalysable lexical item.

The main other verb that I've noticed acting as a causative in these constructions is **tau** 'hit.' For example, **tau=taha** 'hit awake' just means 'wake (someone) up,' without any indication of manner. **tau** has this use with a relatively restricted range of complements, and I expect the same will be true of any other verbs I discover with resultative/causative uses.

As with resultative constructions in general, a causative like (43) describes only a single event, so the idea is not that the speaker did something, and that caused the people to be satisfied. For more indirect causation, you have to use the construction with an auxiliary; the difference can be a bit subtle, though, since that auxiliary might well be **jai**.

Finally, these causatives can be passivised as discussed in the previous section; for example, **jai=rahu** can mean 'they were satisfied.'

Inchoatives

Akiatu's inchoative alternation involves a change in the semantics of a verb's argument, not the number of arguments, but I'm still going to consider that a valency alternation.

The main pattern is fairly straightforward: a stative verb gets used with a resultative complement, and this induces it to take on an inchoative sense. Here's an example:

- (44) itamu suwasu =wasu
Itamu asleep =asleep
 "Itamu fell asleep"

In that example, the resultative complement is derived from the very verb that's being used. This is by far the most common pattern with inchoatives, and (it will turn out) it's no coincidence that it looks just like a sort of partial reduplication.

Diachronics

I can so far only sketch the history of these constructions. Here goes.

As noted above, clitic complements can involve some morphophonological surprises. I'd like to be able to explain those in detail, but my sound changes aren't sufficiently settled for me to do that, unfortunately.

Syntactically, I see Akiatu's resultative construction as having a few separate sources. Most interesting are the cases that involve some sort of reduplication.

First is the partial reduplication of stative verbs to give an inchoative sense, which has been productive for at least several centuries. This is the source of the CVCV template for clitic complements (both that and the specific ways in which CVCV clitics are derived from full verbs are modeled after fairly standard sorts of partial reduplication).

Second, some transitive verbs took on distinctive meanings when fully reduplicated. The main cases I'm sure of are **mawa mawa** 'look for and find' from **mawa** 'find,' and **aja haja** 'throw away' (with epenthetic **h**) from **aja** throw. These forms do not initially involve any cliticisation. However, as a coincidence, the verbs that got this treatment the earliest already satisfied the CVCV reduplication template (or did once an epenthetic initial **h** got added).

Third, the collapse of Gagur's system of auxiliaries maybe 1500 years before led to a new perfective construction that involved a new auxiliary and a nominalised verb. The most common pattern would be for the verb to be nominalised by full reduplication; if the verb was transitive, the object would be encoded by an inalienable possessor, which meant putting it directly before the verb.

Fourth and finally, some verbs underwent idiosyncratic sound-symbolic reduplication, giving rise to a sort of ideophone complement, often with resultative semantics.

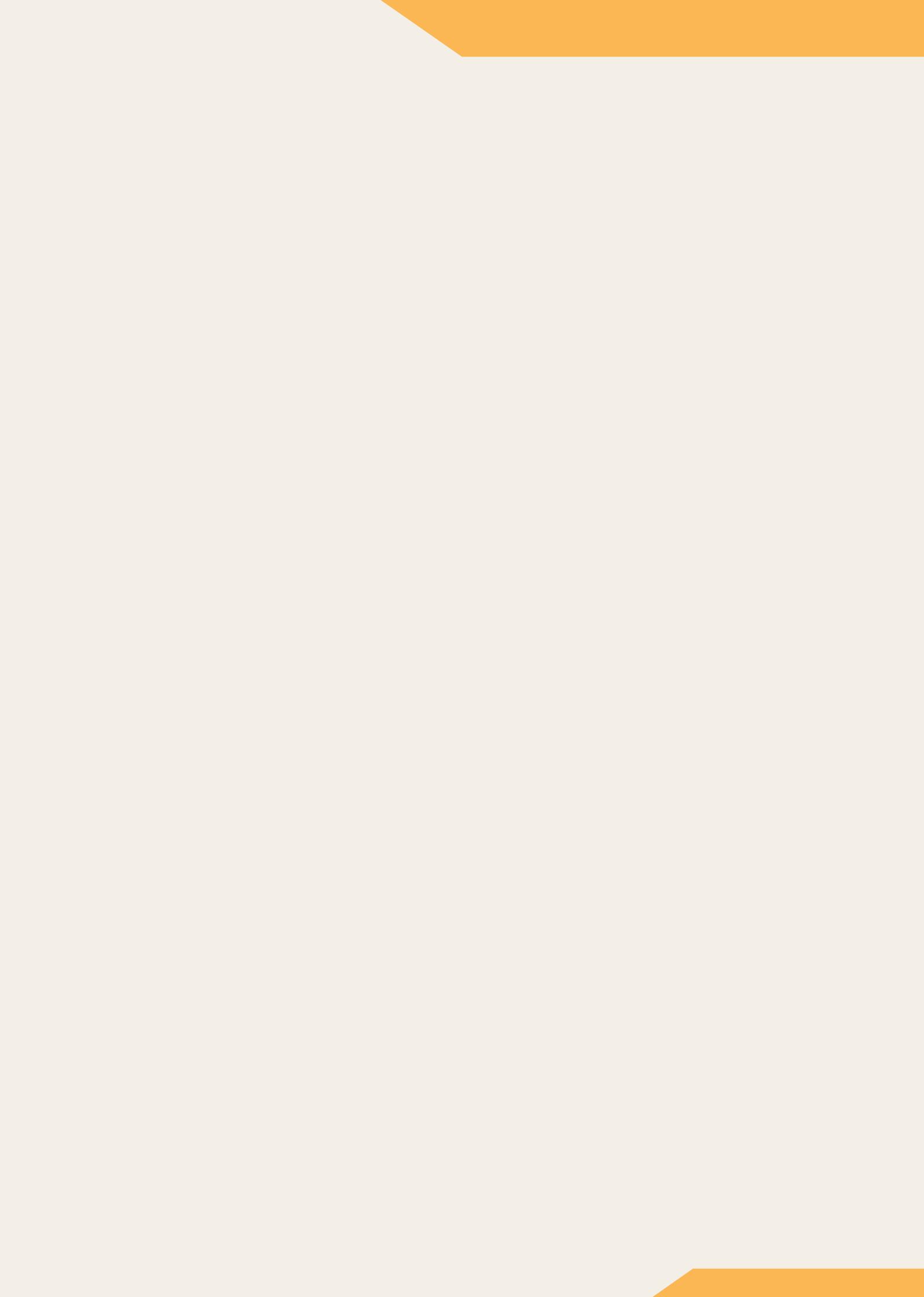
The full Akiatu system arose when these four constructions merged, both semantically and syntactically, and both with each other and with destination arguments and (adjectival) resultative secondary predicates. Here are some of the changes required for this merger:

- The CVCV template and cliticising prosody had to spread from the inchoative construction to reduplication of the **mawa mawa** type, helped by the fact that most of those

verbs already satisfied the template.

- The new perfective auxiliary had to be lost, and the remaining N V V structure, originally a possessor followed by a nominalised verb, had to become an OV structure. And the CVCV template and cliticising prosody had to spread to these cases as well.
- The semantics of the perfective structure had to narrow and become specifically resultative; the appearance of a new perfective auxiliary (maybe **wí**) might have helped this along
- Some of the CVCV reduplicants had to degrammaticalise to the extent that they could be used as clitics attached to verbs other than their original reduplication base. Meanwhile, reduplicants that did not easily yield a resultative sense had to drop out of use or undergo idiosyncratic semantic developments.
- The OV order had to spread to all of these cases, including also those with destination arguments or with adjectival resultative secondary predicates.
- The requirement that a resultative complement directly follow the verb, which you get automatically with reduplication, had to spread to adjectival and dative resultatives.

Parts of this will be tricky to work out in detail, but the overall picture is sufficiently plausible, I think.



Coming Attractions

Thank you for reading Segments! We hope you will join us again for Issue #03:

Noun Constructions

The submission period will open in September 2021!

Keep your eyes out for announcements in different conlang communities with more details on content guides, submission guidelines, deadlines, and more!

In the meantime, start thinking up ideas on what you may want to explore about how nouns & noun phrases work in your language!

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Intended as both an educational resource and a way to showcase the best work the r/conlangs community had to offer, [Segments](#) was started in 2020 on an initiative by u/Lysimachiakis and u/Slorany, with great amounts of help from the rest of the subreddit's moderation team.