

Structuring Itelmen Word Order

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Introduction

- (S)OV and (S)VO order are well-attested in Itelmen
- What conditions the alternation?
- Small text/corpus study
- Implications for Itelmen (morpho)syntax
- Implications for approaches to syntax of focus/new/given
- Consideration of (functional) alternatives





Itelmen [itl]

- Chukotko-Kamchatkan, Kamchatka peninsula, Russia
- 1990s ~ 80 speakers
- now handful of varying proficiency:
 - 1 completely fluid, native; others varying - revitalization
- all speakers bilingual, Russian-dominant since 1950s or earlier

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E. E. Silina



A. D. Ivashova

OV~VO:

- (1) sčas kma **miɬ knin** **iʔ** t'-il-aɬ-čen. OV
 now 1SG all 2SG.POSS water 1SG-drink-FUT-1>3SG
 'I will drink up all your water.' [AS (37)]
- (2) k'-il-ʔin=(n)in **miɬ kəɬx^w-čax.** VO
 PRT-drink-TRANS.PRT=3CL all lake-DIM
 'She drank up all the little lake.' [AS (38)]



- subject and object **cross-referenced on verb**
- no case marking on subj, obj
- arguments freely omitted

(1) sčas kma miɫ knin iʔ t'-il-aɫ-čen.
 now 1sg all 2sg.POSS water 1sg-drink-FUT-1>3sg
 'I will drink up all your water.' [AS (37)]

(2) k'-il-ʔin=(n)in miɫ kəɫx^w-čax.
 PRT-drink-TRANS.PRT=3CL all lake-DIM
 'She drank up all the little lake.' [AS (38)]



Four Texts

	Title	Stroyteller	Genre
1.	Wingless Gosling	Tatiana N. Bragina	Myth/Tale
2.	Old Man	Lyudmila E. Pravdoshina	Event
3.	Kutkh and the Mice	Ekaterina E. Silina	Myth/Tale
4.	Tilval	Agrafena D. Ivashova	Legend

- ~900 clauses (of which ~300 transitive)
- Sedanka-Tigil (Northern) dialect
- recorded 1994, transcr. & edited with speakers
- Speaker 1 *1906, Speakers 2-4 *1934-1942.

Methodology 1: Coding for IS

O_{new} referent not previously mentioned in discourse

or explicitly contrastive ($n=6$) cf. *focus*

O_{old} referent previously mentioned in discourse (=given)

1st and 2nd person always given

- dialogues within a story are new discourses
- Complications:
 - finer-grained: salience, accessibility, etc
 - focus $\neq$ new
 - part-whole: X's hand, door of house, etc.
 - common ground via world knowledge (chapel in village, etc)

Four Texts

INTRANSITIVE	V	SV	VS		Total
	304	236	36		576
TRANSITIVE					SubTotals
no S,O	V				
	58				58
1 NP	SV	VS	OV	VO	
	16	4	105	65	190
S>O	SOV	SVO	VSO		
	34	21	3		58
O>S	OSV	OVS	VOS		
	7	4	0		11
TOTAL TRANSITIVE					317

Table 1: Constituent Order (raw)

Methodology 2: Coding for S,O,V

Three points of indeterminacy:

1. Coordination or separate clauses?
2. Perception verbs (NP as O or S)?
3. N-construction (“passive”/impersonal)

Indeterminacy 1: Counting clauses

- (5) aŋaqa-čχ k-φti-knen k-ŋrep-qzu-knen
 Angaqa-DIM PRT-remain-PRT PRT-sing-ASP-PRT

‘Angaqa remained and (he) sang’ [AS (25)]

- a. [_{CP} Angaqa remained] & [_{CP} pro sang]

SV & V

- b. [_{CP} Angaqa [_{VP} remained] & [_{VP} sang]]

SV & SV



Indeterminacy 2: Perception (and similar) verbs:

- (6) k'-əłčku-in=(n)in tsxal-astas k-k'oł-knen
 PRT-see-TRNS.PRT=3CL fox-AUGM PRT-come-PRT
 'He saw a fox coming.' [AS (28)]
- a. [saw fox_i] [(it_i) came] NP-complement
 b. [saw [fox come]] clausal-complement

- (True) clausal complements always post-verbal (in texts)

Strategy:

- raw count: include perception O (and N-construction)
- adjusted count: exclude perception O (and N-construction)

Raw counts (before refinements)

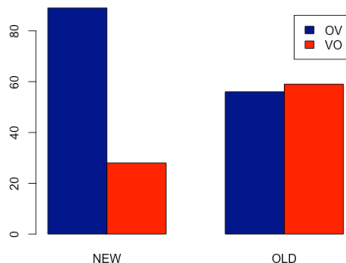


Table 2: All texts OV/VO $\times$ old/new (raw)
(Fisher's Exact $p < .0001$)

	OV	VO	Total
O_{new}	93	31	124
O_{old}	57	58	115
Totals	150	89	239

Table 3: Text 1 (raw) (Fisher's Exact
 $p = 0.02533$)

	OV	VO	Total
O_{new}	12	5	17
O_{old}	3	9	12
Totals	15	14	29

First Result

- O_{new} mostly pre-verbal (3:1)
- O_{old} variation
 - for oldest speaker, O_{old} mostly post-verbal

Broadly consistent with (S)OV languages, opposite of (S)VO

- Turkish (OV) (Kural, 1997; Kornfilt, 2005; Şener, 2010):
 - preverbal focus, *O_{old}* scrambled (L or R)
 - postverbal constituents must be background (given, non-topic)
 - cf.: Hindi/Urdu - de-emphasis (Gambhir, 1981; Butt & King, 1997)
- Russian (VO) (Dyakonova, 2009; Bailyn, 2012; Titov, 2012):
 - Right Focus: new information focus occurs clause-finally (IK1)
 - *O_{old}* may but need not front (also contrastive focus)

Turkish: SOV, unmarked? intonation

- (7) I know that my wife asked Pelin, Pinar, and Can each to read a famous book by Orhan Pamuk titled “White Castle” in her class last week. I ask her today:

A: What happened with that reading assignment of yours from last week?

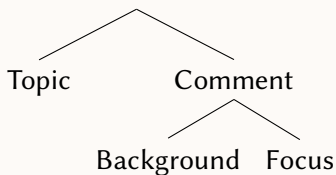
(8) B:

- a. # Yalnızca Pelin **kitab-ı** oku-muş. SOV
only Pelin book-ACC read-PAST
- b. **Kitab-ı** yalnızca Pelin oku-muş. OSV
book-ACC only Pelin read-PAST
- c. Yalnızca Pelin oku-muş **kitab-ı**. SVO
only Pelin read-PAST book-ACC

‘Only Pelin read the book.’

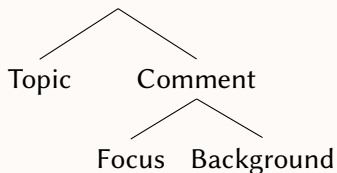
(Şener, 2010, see also Kural (1997); Kornfilt (2005))

(9) SVO



Given > New

(10) SOV_x



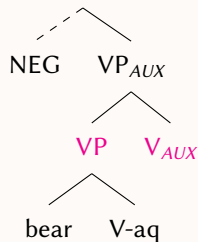
Given_{Top} > New > Given_{Bkgd}
= Tail (Vallduví, 1992)

Itelmen VP is head-final (I)

Negation: NEG ... V-(k)aq ... AUX

- (11) qaʔm βeqaʔnɬ ɬəm-aq tʻ-iɬ-čen
 NEG bear kill-NEG 1SG.-AUX-1>3SG
 ‘I didn’t kill (a) bear.’ [S3:9]

- (12) a. * tʻ-iɬ-čen qaʔm ɬəm-aq
 1SG-AUX-1>3SG NEG kill-NEG
 b. * qaʔm tʻ-iɬ-čen ɬəm-aq
 NEG 1SG-AUX-1>3SG kill-NEG
 ‘I didn’t kill it.’ [S3:9]



see also Abramovitz (2019) on Koryak
 caveat re: Volodin (1976, 275)

Itelmen VP is head-final (II)

Predicate complements to *le-* ‘become’
(including predicate nominals (b)):

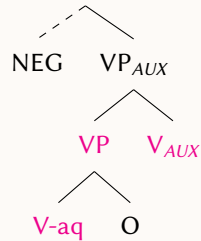
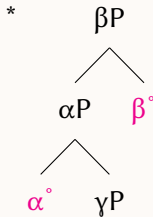
- (13) a. qat **laq-aq** k-le-qzu-knen.
 already cold-ADV PRT-become-ASP-PRT
 ‘Already it was becoming cold.’ [AS (5)]
- b. qat A.S. **li** **p-lax** **qsas** k’-le-knen
 ALREADY A.S. very big-ADJ goose PRT-become-PRT
 ‘A.S. had already become a very big goose, ...’ [AS (94)]

Itelmen VP is head-final (III)

Complex predicates (light verbs):

- (14) a. **xaq** tχi-ʔn k-**təl**-knen
 know 3PL-PL PRT-AUX-PRT
 ‘They recognized (lit: knew) him.’ [TN (63)]
- b. jurte-čχ **ənluʔi-ʔ** k’-**ite**-ʔin
 yurt-DIM enflame-INST PRT-AUX-PRT
 ‘(They) burned the little yurt.’ [KL (118)ʹ]
- c. noz-əʔn knank **napravit** t’-**iʔ**-če-ʔn
 dried.fish-PL 2SG.DAT prepare(<*Russ.*) 1SG-AUX-1>3-PL
 ‘I’ve prepared jukola (dried fish) for you.’ [KL:15]

if... V,O flexible, but VP-Aux head-final
 then... FOFC violation (Biberauer et al., 2014)



An indirect argument for high VO_{Old}

Biberauer et al. (2014): In many V-final languages, CP complements follow V

Headedness parameters (counterfactual):

VP-AUX	head-final AuxP
DP-V	head-final VP
V-CP	but CP complement to right

Predicts [[V O_{CP}]_{VP} AUX]

False! Unattested.

∴ [V CP] order involves extraposition, not complement on right

An indirect argument for high VO_{Old}

Elicitation (with Susi Wurmbrand):

(15) βeqaʔnʲɬ ‘bear’:

<1> qaʔm <2> ɬəm-aq <3> tʰ-iɬ-čen <4>
 NEG kill-NEG 1SG.-AUX-1>3SG

‘I didn’t kill (the/a) bear.’ [S3:9-10]

<2> preferred

<1,4> acceptable

<3> very hesitantly acquiesced but in ‘repeating’ switched to <2>

An indirect argument for high VO_{Old}

Texts:

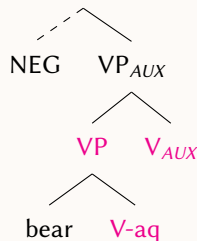
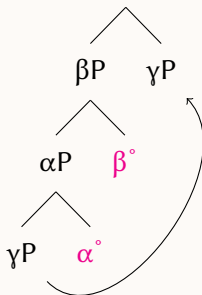
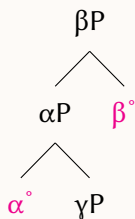
- one occurrence of [V O Aux] in recordings (Lt. Vb)
- but auxiliary omitted in edited version V O

Tentative conclusion: * V O Aux

An indirect argument for high VO_{Old}

- FOFC compliant
- Unexpected, if O in [VO] within VP
- Suggests that VO is (high) extraposition of O.

*



NB: Although the reasoning follows Biberauer et al. (2014), the motivation for finite CP extraposition in FOFC does not extend to the Itelmen VO derivations.

Interim conclusions

- Itelmen is an OV language, VO is derived
- *O_{old}* extraposes optionally (upward movement of +given)
- VO not (just) a Russian calque (contra Ono, 2021, others)
- Possibly old:
 - suffixal O agreement < pronouns
 - ∴ post-verbal O for non-focus O was possible order
 - cf. Comrie (1980) on Mongolic

First results:

- $O_{new}V$
- $O_{old}V \sim VO_{old}$ (why diff?)
- Itelmen patterns with OV languages (**extraposition**)
- not (just) Russian influence (Ono, others)
- Itelmen uses VO more than in Turkish, why?

Table 4: All texts OV/VO $\times$ old/new (raw)

	OV	VO	Total
O_{new}	93	31	124
O_{old}	57	58	115
Totals	150	89	239

Table 5: Text 1 (raw)

	OV	VO	Total
O_{new}	12	5	17
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Totals	15	14	29

Perception (and similar) verbs:

(16) k'-əʈčku-in=(n)in tsxal-astas k-k'oʈ-knen
 PRT-see-TRNS.PRT=3CL fox-AUGM PRT-come-PRT

‘He saw a fox coming.’ [AS (28)]

- | | |
|--|--------------------|
| a. [saw fox _i] [(it _i) came] | NP-complement |
| b. [saw [fox come]] | clausal-complement |

Meaning alone doesn't preclude RtO/ECM (Lohninger et al., 2022)

Perception (and similar) verbs:

(16) k'-əłčku-in=(n)in tsxal-astas k-k'oł-knen
 PRT-see-TRNS.PRT=3CL fox-AUGM PRT-come-PRT

'He saw a fox coming.' [AS (28)]

- a. [saw fox_i] [(it_i) came] NP-complement
 b. [saw [fox come]] clausal-complement

- All perception verb complements post-verbal, regardless of IS
- (All clausal complements are post-verbal)
- 3/5 VO_{new} in Text 1 (15/31 in aggregate) are perception complements

Perception (and similar) verbs:

- (17) k'-joβa-ʔa-ʔn-(n)in qsa-ʔn k'oʈ-kil-at
 PRT-encounter-TR.PRT-PL-3CL goose-PL come-NOM-PL
 'He encountered geese coming.' [AS (76)]
- (18) t'-əʈčku-at-aʈ-čen k'e-ze enu ʈ-qzu-in
 1SG-see-GO-FUT-3SG.OBJ who-PTCL DEM BE-ASP-3SG
 'I'll go see who was there.' [TN (101)]
- (19) da-vot muza-ʔn nt'-utu-z-in [βitβit txuŋe-s.]
 INTRJ 1PL-PL 1PL-unable-PRES-3.OBJ seal drag.out-INF
 'Well, see, we can't drag the seal out.' [KL (18)]

Restructuring, Order, Scope (Bobaljik & Wurmbrand, 2005)

LDA is (descriptively) optional

- (20) a. na əntxa-βum=nin [kma jeβna-s.]
 3SG forget.TR-1.OBJ=3CL 1SG meet-INF
 ‘He forgot to meet me.’ [S6:8]
- b. na netxa-in [kma jeβna-s.]
 3SG forget.INTR-3SG 1SG meet-INF
 ‘He forgot to meet me.’ [S6:9]

Restructuring, Order, Scope (Bobaljik & Wurmbrand, 2005)

But LDA $\rightarrow$ object scope over matrix verb:

(21) t'-əntxa-čē-ʔn [miʔ okno-ʔn sop-es.]

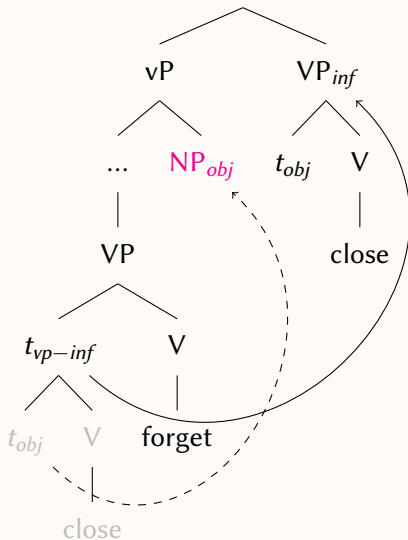
1SG-forget.TR-3.OBJ-PL all window-PL close-INF

'I forgot to close all the windows.' [S6:6-7]

$\forall >$ forget no window closed

NOT: forget $> \forall$ some, not all windows closed

Restructuring, Order, Scope (Bobaljik & Wurmbrand, 2005)



- Object extraposition precedes (remnant) clausal extraposition
- Same derivation with AUX, possibly more complex under FOFC/LCA

N-construction: passive/impersonal

- (22) a. **Mit-enk** n-qzu-z-um
 Miti-LOC N-wait-PRES-1s.OBJ
 ‘Miti (is) waiting for me.’ [KL (17)']
- b. **tsxal-enk** mił i? n-γil-čen
 fox-LOC all water N-drink-3sg.OBJ
 ‘All the water was drunk by the fox.’ [AS (47)']

S: oblique (LOC/INSTR), fixed prefix *n-* [=3PL]

O: unmarked, triggers object agreement

Source of Ergativity and “Inverse” in Chuktokan? (Bobaljik, 2019)

Passive/Impersonal

- (23) a. **kma** n-oms-qzu-βum
1SG N-leave-ASP-3>1SG

‘I was left behind.’ [AS (46)]

- b. sinanɛβt-enk **kma** n-txunt-qzu-βum anqle
Sinangewt-LOC 1SG N-raise-ASP-1SG.OBJ winter

‘I was raised by Sinangewt in the winter.’ [AS (85)]

n=7 (Text1), n≥26 (aggregate)

- O_{old} preverbal
- unlike post-verbal O_{old} , passive O **is topic**
- Agensausblendung (Agent-backgrounding) (Georg & Volodin, 1999, 197)

Passive/Impersonal

- (24) a qunʔitɪn kɬɪŋle k-piki-knen ɲeja-ʔn-k
 and once night PRT-go-PRT mountain-PL-LOC
 i bolʃe na qaʔm k'e-nk ətʃku-q k'-it-ʔin.
 and more 3SG NEG who-LOC see-NEG PRT-AUX-PRT

‘And one night he went into the mountains and was never seen by anyone again.’ (TL (126))

Revised Tables (excl. perception, passive)

Table 6: Aggregated OV/VO $\times$ old/new
($\chi^2=39.9008$, $p<.00001$)

	OV	VO	Total
O_{new}	91	16	107
O_{old}	44	55	99
Totals	135	71	206

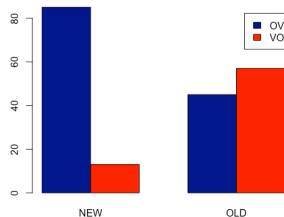
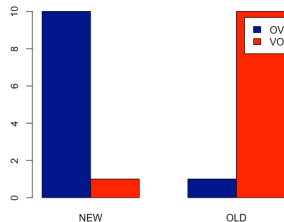


Table 7: Text 1 (final) (Fisher's Exact
 $p=0.001905$)

	OV	VO	Total
O_{new}	10	2	12
O_{old}	1	9	10
Totals	11	11	22



Narrative Inversion

VO_{new} in Text 1:

- (25) a. k-zun^ɟ-qzu-kne-ʔn **qsə-ʔn**
 PRT-live-ASP-PRT-PL goose-PL
 ‘There lived some geese.’ [AS (1)]
- b. **qsə-ʔn** k'-ənsxt-ʔeʔn **txi-ʔn p'e-ʔn**
 goose-PL PRT-give.birth-TRANS.PRT.PL 3PL-PL child-PL
 ‘The geese gave birth to children.’ [AS (2)]

INTRANSITIVE	V	SV	VS	Total
	304	236	36	576

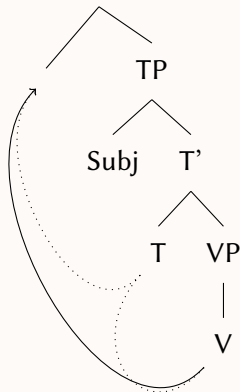
Narrative Inversion

(Once upon a time, Жил был)

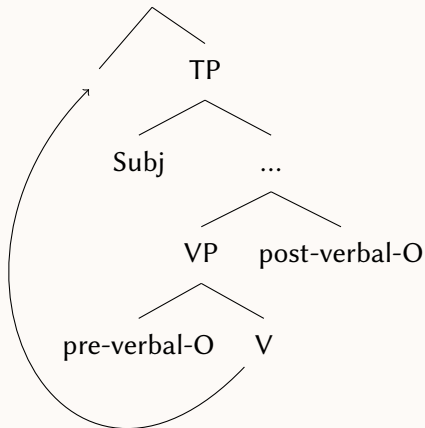
- (26) it'e k-zun^j†-qu-knen **li** **staroj tnaqol**.
 when PRT-live-ASP-PRT very old old.man
 'Once there lived a very old man.' [TN (2)]
- (27) it-qat k-zun^j†-qu-kne-ʔn **Kusx†nequ i** **Miti**,
 when-already PRT-live-ASP-PRT-PL Kutkh and Miti
 'Once there lived Kutkh and Miti,' [KL (1)]
- (28) it-qata zin-k k-zun^j†-qzu-kne-ʔn **č'amza-ʔl**.
 when-already woods-LOC PRT-live-ASP-PRT-PL person-PL
 'Once in the woods there lived some people.' [TL]

Narrative Inversion

Bailyn (2012, 337)
(Russian)



(Itelmen)



VO_{new} in Text 1

- (60) sinanɛβit sisi-ʔn-č nβen k-sk-aʔn
 Sinangewt wing-PL-DIM LOC PRT-make-PRT.PL
 ‘Sinangewt made little wings then.’
- (61) k-ʔən-tʃi-ʔin-(n)i’n qsas-čχ-ank i k-t’ə-nin-(n)in
 PRT-CAUS-wear-TR.PRT-3CL.PL goose-DIM-DAT and PRT-take-3>3SG-3CL
 əz-ank
 outside-DAT
 ‘She put the wings on him and took him outside.’
- (62) k-χene-knen:
 PRT-say-PRT
 ‘She said:’
- (63) “q-taβoŋ-xe’n tinu’n sisi-ʔn-č”
 2.IRR-try-2>3PL DEM.PL wing-PL-DIM
 “Try these wings.”

Refined results:

- syntax of perception complements - no movement?*
- topic $\neq$ given
- $O_{new}V$ (robust!)
- backgrounded O tends to be postverbal
- OV + (optional) extraposition

*pace Bobaljik & Wurmbrand 2005

Competing Constraints

- Basic order: OV
- New information: pre-verbal

	OV	VO	Total
O_{new}	91	16	107
O_{old}	44	55	99
Totals	135	71	206

For O_{new} : convergence

For O_{old} : conflicting constraints:

OV > VO

optionality

cf. Bobaljik & Wurmbrand (2012)

A “Noisy Channel” Alternative?

Gibson et al. (2013):

- for $V_{transitive}$, if one NP is missing, and if no case marking, what is the role of the NP?
 - SOV base: NP V - ambiguous
 - SVO base: NP V - subject
V NP - object

claim In SOV languages, VO order gives redundant coding of O role for **animate NP**

(NB: Gibson et al. (2013) consider no language data, only gesture tasks)
See Kocab et al. (2018) for additional critical remarks.

A Noisy Channel?

Itelmen:

- No case marking S/O
- OV~VO
- usually only one overt NP:

V	58	
V,NP	190	(S: 20, O:170)
V,NP,NP	69	
Total	317	(raw)

A Noisy Channel?

No: Small effect of animacy, but larger effect of old/new.

- Holding other predictor variables constant:
 - odds ratio $VO_{anim} : VO_{inan} = 2.1$ (95% CI [1.0, 4.3]).
 - odds ratio $VO_{old} : VO_{new} = 6.1$ (95% CI [3.1, 12.9]).
- binary logistic regression model (glmer in R)
glmer(*ORDER* ~ *INFSTR* + *ANIMACY* + (1/*TEXT*))

A different animacy factor?

Aside: Small effect of animacy independent of IS, but $O_{inan}V$ or VO_{anim} ?

(29) esx-ank-əŋ li plex-a?n txu?-i?n_{new} q-la-qzu-čx-e?n
 father-DAT-DAT very big-PL greeting-PL IMP-tell-ASP-II-PL
 ‘Give (tell) your father big greetings!’ [TN (110)]

(30) muza-?n mił esx-a?n-k-əŋ txu?-i?n_{old} nt’-la-ał-xŋ-e?n
 1PL-PL all father-PL-DT-DT greeting-PL 1PL-tell-FUT-II-PL
 ‘We will all give (tell) our fathers greetings!’ [TN (112)]

Non-referential O?

When these (n=22) are excluded, effect of animacy dips below significance: (p=.0981, OR 1.9 (95% CI [0.9, 4.1])).

Noisy Channel?

- Main driver of $OV \sim VO$ is IS, not animacy
- small effect of animacy, many potential sources
- single NP with transitive verb 8.5:1 NP = object
- since $S \Leftrightarrow$ topic, IS alone normally enough to resolve GF
- Noisy channel effect not a contender for explanation of alternation

Conclusions: OV~VO in Itelmen

- Itelmen is an OV language (basic order)
 - OV/VO reflects Information Structure
 - O_{new} is almost always pre-verbal
 - O_{old} may (need not) extrapose
 - perception complements are clausal, despite agreement
 - preverbal focus is low, extraposed O is high (not Cartography)
 - potential for correlation V-final/-initial with prosody
- Jackendoff (1972); Schmerling (1976); Gussenhoven (1983); Selkirk (1984); Arregi (2016)

Common end to traditional narratives (Text 1)

- (31) ti'n-nu t-pent~~+~~fi-s-čen
 DEM-PRTC 1SG-finish-PRES-1>3SG
 'Here I have finished [the story].' (AS(95))

aside: Word Order Freezing?

Why does Itelmen use more R-movement than Turkish?

Speculation:

(Almost) no scrambling across the subject.

Only 1 (non-wh, non N-construction) example of OSV in texts:

(32) tnaqol tʃi-ʔn k-tzəl-knen
old.man 3PL-PL PRT-catch.up-PRT-PL

‘They caught up to the old man.’ [TN (63)]

(O here is topic of story, but not of sentence)

caveat: short L-scrambling not investigated

aside: Word Order Freezing?

- (33) a. otc-a ljubiti syn OSV
father-ACC loves son.NOM
'The son loves the father.'
- b. mat' ljubiti doč' SVO #OVS
mother.NM=AC loves daughter.NM=AC
'The mother loves the daughter.'
- (Jakobson, 1936[1971] vs. King, 1995)

Where case marking doesn't distinguish actants, S>O preferred

- (34) Doch die Sowjetunion konnte M. Gorbatschow nicht retten.
yet the Soviet.Union could M. G. not save.
(*Der Standard* 31.08.22, h/t Susi Wurmbrand)

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