

OV and VO Order in Itelmen

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Introduction

- (S)OV and (S)VO order are well-attested in Itelmen
- What conditions the alternation?
- Small text/corpus study:
- Information structure: $O_{new} V O_{old}$
- Reject alternative

Itelmen [itl]

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

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

(1) kma miɬ knin iʔ t'-il-aɬ-čen.
1SG all 2SG.POSS water 1SG-drink-FUT-1>3SG
'I will drink up all your water.' [AS (37)]

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

Two Hypotheses

Hypothesis 1 OV/VO signals O_{new}/O_{old}

- Subject is topic
- Post-verbal O is old (given) information

Hypothesis 2 VO is used to avoid ambiguity (Gibson et al)

- NP_{anim} V is ambiguous in SOV language
if no case or other cue

Four Texts

Title	Stroytellet	Genre
1. Wingless Gosling	Tatiana N. Bragina	Myth/Tale
2. Old Man	Lyudmila E. Pravdoshina	Event
3. Kutxh 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
 - part-whole: X's hand, door of house, etc.
 - common ground via world knowledge (chapel in village, etc)

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 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 passive)
- adjusted count: exclude perception O (and passive)

Raw counts (before refinements)

Table 1: All texts OV/VO $\times$ old/new (raw) ($\chi^2=18.54$, $p=.000017$)

	OV	VO	Total
O_{new}	89	28	117
O_{old}	56	59	115
Totals	145	87	232

Table 2: Text 1 (raw) (Fisher's Exact $p=0.0092$)

	OV	VO	Total
O_{new}	12	4	16
O_{old}	3	10	13
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)
- 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)

Itelmen VP is head-final (II)

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

- (9) 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-laχ 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):

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

Interim Conclusion

- Itelmen is an (S)OV language
- O_{new} preverbal
- O_{old} may, but need not, extrapose (like Turkish)

Table 3: Text 1 (raw) (Fisher's Exact $p=0.0092$)

	OV	VO	Total
O_{new}	12	4	16
O_{old}	3	10	13
Totals	15	14	29

Perception (and similar) verbs:

- (11) 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)
- 3/4 VO_{new} in Text 1 (15/28 in aggregate) are perception

Interim Summary: Text 1

Table 4: Text 1 (adjusted) (Fisher's Exact $p=0.001$)

	OV	VO	Total
O_{new}	12	1	13
O_{old}	3	10	13
Totals	15	11	26

- O is nominal objects only, excluding perception/restructuring
 - clausal complements always? post-verbal

N-construction: passive/impersonal

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

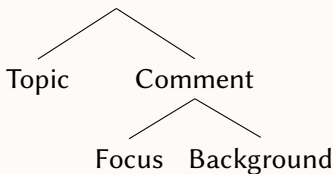
S: oblique (LOC/INSTR), fixed prefix *n-* [=3PL]

O: unmarked, triggers object agreement

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

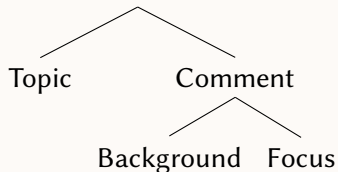
(17) SOV_x

Given_{Top} > New > Given_{Bkgd}



(18) SVO

Given > New



Revised Tables (excl. perception, passive)

Table 5: Text 1 (final) (Fisher's Exact
 $p=0.0003$)

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

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

	OV	VO	Total
O_{new}	85	13	98
O_{old}	45	57	102
Totals	130	70	200

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 only gesture, no actual language data)

A Noisy Channel?

Itelmen:

- No case marking S/O
- $OV \sim VO$
- usually only one overt NP:

V	55	
V,NP	183	(S: 21, O:162)
V,NP,NP	70	
Total	308	(raw)

A Noisy Channel?

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

- binary logistic regression model (glmer in R)

glmer(*ORDER* ~ *INFSTR* + *ANIMACY* + (1/*TEXT*))

- Holding other predictor variables constant:
 - odds ratio $VO_{anim} : VO_{inan} = 2.2$ (95% CI [1.1, 4.8]).
 - odds ratio $VO_{old} : VO_{new} = 7.7$ (95% CI [3.7, 16.9]).

Moreover:

- If $NP_{new} \rightarrow O$, then predict interaction:

glmer(*ORDER* ~ *INFSTR* * *ANIMACY* + (1/*TEXT*))

- none found: only *INFSTR* as a significant factor ($p < .001$)

Noisy Channel?

- Main driver of $OV \sim VO$ is IS, not animacy
- small effect of animacy, many potential sources
- since $S \rightleftharpoons$ topic, IS alone normally enough to resolve GF
- Noisy channel effect not a contender for explanation of alternation

A different animacy factor?

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

(19) *esx-ank-əŋ li plex-aʔn txuʔ-iʔn_{new} q-la-qzu-čx-eʔn*
father-DAT-DAT very big-PL greeting-PL IMP-tell-ASP-II-PL
‘Give (tell) your father big greetings!’ [TN (110)]

(20) *muza-ʔn miɬ esx-aʔn-k-əŋ txuʔ-iʔn_{old} ntʼ-la-aɬ-xŋ-eʔn*
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?

Default OV, typically inanimate?

Conclusions: OV~VO in Itelmen

- Itelmen is an OV language (basic order)
- OV/VO is Information Structure
- *O_{new}* is almost always pre-verbal
- *O_{old}* may (need not) extrapose
- perception complements are clausal, despite agreement
- effect is for O that is old/given, but not (primary) topic

Question: Are there parallels in other
(Chukotko-Kamchatkan/Paleo-Siberian) languages?

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Four Texts

Table 7: Constituent Order (Summary)

Intransitive	V	SV	VS		Total
	289	234	34		557
Transitive					308
0 NP	V				
	55				55
1 NP	SV	VS	OV	VO	
	15	6	102	60	183
2 NP, S>O	SOV	VSO		SVO	
	33	5		21	59
2 NP, O>S	OSV	OVS		VOS	
	6	4		1	11

Transitive: S: 91/308 (30%); O: 232/308 (75%)

Four Texts

Table 8: Constituent Order (Summary)

Intransitive	V	SV	VS		Total
	289	234	34		557
Transitive					308
0 NP	V				
	55				55
1 NP	SV	VS	OV	VO	
	15	6	102	60	183
2 NP, S>O	SOV	VSO		SVO	
	33	5		21	59
2 NP, O>S	OSV	OVS		VOS	
	6	4		1	11

Transitive: S: 91/308 (30%); O: 232/308 (75%)

Four Texts

Table 9: Constituent Order (Summary)

Intransitive	V	SV	VS		Total
	289	234	34		557
Transitive					308
0 NP	V				
	55				55
1 NP	SV	VS	OV	VO	
	15	6	102	60	183
2 NP, S>O	SOV	VSO		SVO	
	33	5		21	59
2 NP, O>S	OSV	OVS		VOS	
	6	4		1	11

Transitive: S: 91/308 (30%); O: 232/308 (75%)

Turkish: SOV

- (21) 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?

- (22) B:
- a. # Yalnizca Pelin **kitab-ı** oku-muş. SOV
only Pelin book-ACC read-PAST
 - b. **kitab-ı** Yalnizca Pelin oku-muş. OSV
book-ACC only Pelin read-PAST
 - c. Yalnizca 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))

Narrative Inversion

VO_{new} in Text 1:

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

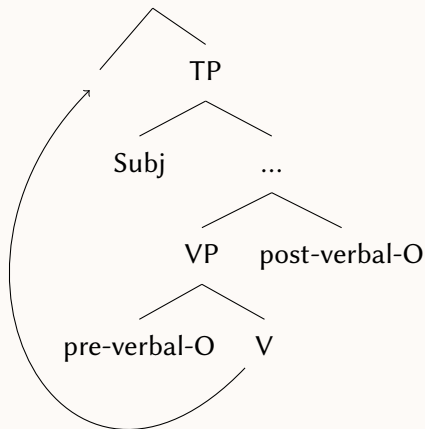
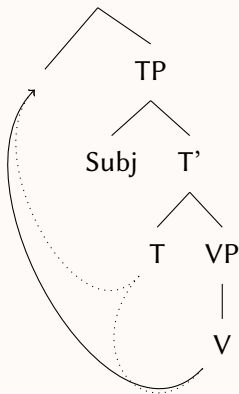
Narrative Inversion

(Once upon a time, Жил был)

- (24) it'e k-zunʃt-qu-knen li staroj tnaqol.
when PRT-live-ASP-PRT very old old.man
'Once there lived a very old man.' [TN (2)]
- (25) it-qat k-zunʃt-qu-kne-ʔn Kusxʃnequ i Miti,
when-already PRT-live-ASP-PRT-PL Kutkh and Miti
'Once there lived Kutkh and Miti,' [KL (1)]
- (26) it-qata zin-k k-zunʃt-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 patterns with OV

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

	OV	VO	Total
O_{new}	89	28	117
O_{old}	56	59	115
Totals	145	87	132

For O_{new} : convergence

For O_{old} : conflicting constraints:

OV > VO

optionality

cf. Bobaljik & Wurmbrand (2012)

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:

- (27) tnaqol tχi-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?

- (28) a. otc-a ljubit syn OSV
father-ACC loves son.NOM
‘The son loves the father.’
b. mat’ ljubit 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

- (29) 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)

An indirect argument for high VO_{Old}

FOFC: In many V-final languages, CP complements follow V

Headedness parameters (hypothetical):

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. $\therefore$ [V CP] order involves extraposition, not complement on right

An indirect argument for high VO_{Old}

Elicitation:

(30) βeqaʔnʝɬ ‘bear’:

<1> qaʔm	<2> ɬəm-aq	<3> tʰ-iɬ-čən	<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

Unexpected, if O in [VO] within VP

prima facie case that VO is (high) extraposition of O.

- Itelmen is an OV language, OV is derived

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