

Approaching Allomorphy

Topic 1: Ins, Outs, and Portmanteaus

Jonathan David Bobaljik
Harvard University

CreteLing 2026

1 Chukotko-Kamchatkan Agreement

Portmanteaus as contextual allomorphy

- (1) The Itelmen finite verb

AGR1 – COND'L – AP – CAUS – $\sqrt{\quad}$ – VB – DERIV* – ASP – TNS – CLASS – AGR2.COMPLEX

- Agreement tables at end of handout - Sedanka dialect.
- NB: Substantial variation (source, dialect, inter-/intra-speaker) esp. fine detail of Class II forms.

(2)

PREFIX	-	STEM	-	SUFFIX
$\left. \begin{array}{l} Subject \\ Mood \end{array} \right\}$				$\left\{ \begin{array}{l} Subject(Intransitive) \\ Object(Transitive) \end{array} \right.$

(3) t'- əłčku -(y)in
1SG.S- see -2SG.O
'I saw you.'

(4) n- əłčku -(y)in
3PL.S- see -2SG.O
'They saw you.'

(5) n- əłčku -βum
3PL.S- see -1SG.O
'They saw me.'

(6) t- k'ot- -k(ičen)
1SG.S- come -1(SG).S
'I came.'

(7) Ø- k'ot- -č
2.S- come -2SG.S
'You came.'

(8) t'- əłčku -čeʔn
1SG.S- see -1>3PL
'I saw them.'

(9) Ø- əłčku -(ə)ʔn
2.S- see -2SG>3PL
'You saw them.'

< -čen + ⟨ʔ⟩
1/Ø>3SG + PL

(10) n- əłčku -neʔn
3PL.S- see -3>3PL
'They saw them.'

(11) Ø- əłčku -sxen
2.S- see -2PL>3PL
'Y'all saw them.' (Kov.)

cf. -sx
-2PL>3SG

(12)	Agr Prefix		Class		Agr Suffix (Complex)	
	m(ə)n-	1PL.IRR	-čij-	3SG>3	-βuʔm	>1PL
	m-	1SG.IRR	-čij-	%2SG>3.IN	-βum	>1SG
	nt-	1PL	-čy ^w (i)-	3PL>3; 2SG>3PL.IR %2SG>3.IN	-sx	>2PL
	t-	1SG	-ik	2PL>3SG; 2SG>3SG.IR	-(y)in	>2SG
	q-	2PL.IRR	-xk-	2PL>3PL; >2SG; >1	-sxen	2PL>3PL
	xǎn-	3.IRR	-ki-	>2PL; {1,Ø}>3; >3IO	-neʔn	3>3(PL)
	n-	3PL.TR	-kn-	PRTC = INTRANS	-čeʔn	1>3(PL)
	Ø	<else>	-k-	NON-FINITE = INTRANS		INTRANS
			(-ij)	(2PL>3 Bog.)	-k	1>Ø
					-sx	2PL>Ø
					-č	2SG>Ø
					...	...

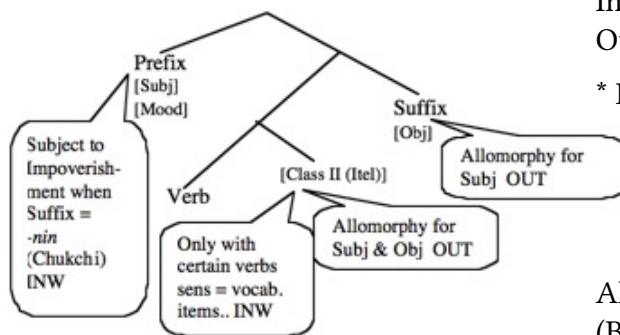
Bobaljik (2000); Bobaljik & Wurmbrand (2001)

	AGR.PREFIX	-	STEM	-	CLASS		AGR.SUFFIX-complex
(13)	Exponent of:		Subject		Class II		Object
	Allomorphy for:		Mood		Mood, Subj, Obj		Mood, Subj

Primary and secondary exponence, see esp. Carstairs (1987); Noyer (1997)

(14)	Portmanteaus as contextual allomorphy (Bobaljik 2000; Fenger 2018, 2024)					
	/-sxen/	⇔	[3PL]	/	[2PL ...[	
	/-neʔn/	⇔	[3PL]	/	[3 ...[	
	/-čeʔn/	⇔	[3PL]	/	__	(1 and impersonal)
	exponent		probed features		context (allomorphy)	

(15)



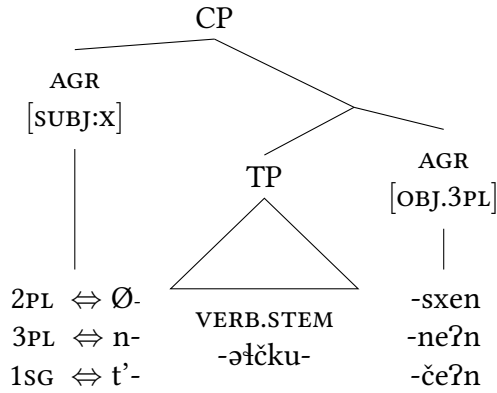
Inwards-sensitive = (morpho)-phonology

Outwards-sensitive = (morpho)-syntax

* Potentially derivable: cyclic v.i.

Alternatives: Cyclic Agree
(Béjar & Rezac 2009)

(16)	[t]-	tφ	-s	-ki	-čeʔn	(č'εβuzlayaʔn kɪčleʔn)
	1SG.SUBJ-	bring _{II}	-PRES	-CL _{II}	-1SG>3PL	(tasty rotten.heads)
	'I'm bringing tasty rotten (mouse) heads.' (field notes: KL25)					



Contextual allomorphy (asymmetric)

Object agr shows allomorphy for subject:
(simplified - suffixes have internal complexity)

- (17) OBJ:3PL $\Leftrightarrow$ -sxen / [2PL ...[__
OBJ:3PL $\Leftrightarrow$ -neʔn / [3 ...[__
OBJ:3PL $\Leftrightarrow$ -čeʔn / __

Extension to double-marking of intransitive subject?

- (18) [SUBJ:X] INTRANS [OBJ:Ø]
- 2PL $\Leftrightarrow \emptyset$ - VERB.STEM -sx OBJ:Ø $\Leftrightarrow$ -sx / [2PL ...[__
- 1PL $\Leftrightarrow nt'$ - -k OBJ:Ø $\Leftrightarrow$ -k(ičeʔn) / [1PL ...[__
- 3PL $\Leftrightarrow \emptyset$ - -iʔn OBJ:Ø $\Leftrightarrow$ -(y)iʔn / [PL ...[__

2 New Evidence: Plural Inclusive Imperatives (Hortative)

- (19) The Inclusive Imperative (Hortative)
(Khrakovskij 1992; Dobrushina & Goussev 2005; Гусев 2005))
- Let's go! [English]
 - Gehen wir! (Gemma!) go.PL we [German]
 - poj-d-**em**-(**te**)! go-**1PL**-(**2PL**) [Russian]
 - ıl-**ıax**! 'let's take!' ıl-**ıay-ıŋ** 'let's take! [Sakha] (Nevskaya 2005)
(‘dual’ = you and me)’ (you-PL and me)
 - mn**-ıł-**k(ičen)**! or: **mn**-ıł-**sx**! [Itelmen]
1PL.IRR-go-1PL **1PL.IRR-go-2PL**
- (20) **Asymmetry I:** Composed inclusive: Imperative only, not indicative
- qat **n-niŋ-kičen** [***n-niŋ-sx**], xałč **mn-ənta-qzu-sx**
already 1PL-load-1PLS 1PL-load-2PL HORT 1PL.IRR-cross-ASP-2PL
‘We’ve loaded up. Let’s go across!’
 - desjat **n-łəm-čeʔn** [***-sx-ŋiʔn**], xałč čβanoke **mn-əntxla-qzu-sx-ŋiʔn**
10 1PL.S-kill-1>3PLO -2PLS-2>3PLO HORT to.camp 1PL.S-take-ASP-2PLS-2>3PLO
‘We killed 10. Let’s take them to camp.’ (Bogoras 1901, Bobaljik et al. 2023)
- (21) **Asymmetry II:** Itelmen-specific questions (composed inclusive)
- Why suffix replacement, not stacking (cf. Russian, Turkic) esp. if calque?
 - Why **1PL-V-2PL** not **2PL-V-1PL**?

3 Asymmetry I: Composed inclusivity without an “inclusive”

(22) Clusivity (Zwicky 1977) – Parameter or Syncretism?

Referents	a. Clusivity Evenki	b. General we English	c. *syou *n/a*
AUTH (not ADDR)	bu	we	*swe
AUTH and ADDR	mit	we	*syou
ADDR (not AUTH)	su	you	*syou
neither	nungartyn	they	they

Dobrushina & Goussev (2005); Goussev (2005)

(23) (Basic) 1PL imperative always inclusive

(24) a. Imperative: requires that ADDRESSEE be (part of) subject

b. vs. Jussive, others: ADDRESSEE control, but not part of subject

(25) Diverse morphological strategies

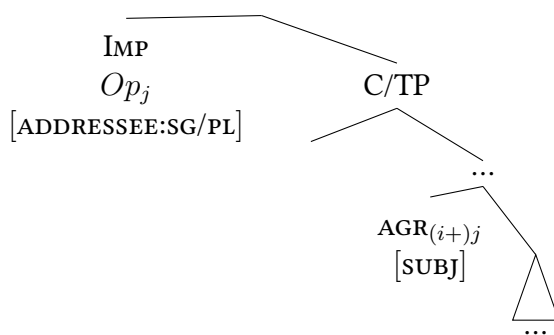
- **Attested:** Composed plural inclusives in imperative, no inclusive in indicative
 - Even if they lack an inclusive category elsewhere
 - Subset draw addressee-number distinction (composed incl)
 - Subset of those: morphologically composed: 1PL + (2)PL
- **Unattested?** Composed inclusivity in indicative only

(26) Composed Minimal-Augmented Imperative (Dobrushina & Goussev 2005: 202):

	2PL	1PL	1PL+2PL	
a.	idi- te	id ⁱ - em	id ⁱ - em-te	[Russian] (from 17 th C)
b.	- yŋ	- yax	- yay-yŋ	[Sakha]
c.	- yŋ	- aly	- aly-yŋ	[Turkmen] < Middle Turkish, 13 th C (Erdal 2004: 237)

Aside: I suggest the Russian *pojd-em-te* form (17th C) may be a calque from Turkic (see Appendix)

(27) Imperative operator



• cf. Jussive: Zanuttini (2008) (but see also Kaufmann 2011)

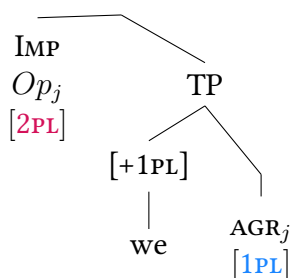
note: no -sx in Itelmen Jussive

• Semantics: ADDRESSEE-oriented, ADDRESSEE must be included in subject

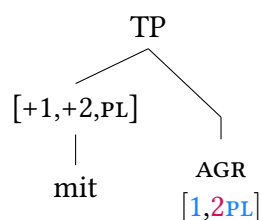
• (Relation to allocutive agreement? Antonov 2015; McFadden 2020)

• ADDRESSEE-# vs. SUBJECT-# at distinct nodes!

- (28) Composed Inclusive
Itelmen, Russian, Siberian Turkic



- (29) Contrast True Inclusive
Evenki etc.



- (30) cf. Russian (roughly): davaj-(te) po-id-em cf. nu=te, na=te, brys'=te
~~davaj~~-(te) po-id-em-te INTERJ=PL clitic
 let's-2PL PO-go-1PL-(2PL) (Jakobson 1932; Kasenov 2024)

- (31) cf. Russian (roughly): davaj-(te) po-id-em cf. nu=te, na=te, brys'=te
~~davaj~~-(te) po-id-em-te INTERJ=PL clitic
 let's-2PL PO-go-1PL-(2PL) (Jakobson 1932; Kasenov 2024)

- (32) Imperative only, not indicative

- a. qat n-niŋ-kičen [*n-niŋ-sx], xač mn-ənta-qzu-sx
 already 1PL-load-1PLS 1PL-load-2PL HORT 1PL.IRR-cross-ASP-2PL
 'We've loaded up. Let's go across!'
- b. desjat n-łəm-če?n [*-sx-ŋi?n], xač čβanoke mn-əntxla-qzu-sx-ŋi?n
 10 1PL.S-kill-1>3PLO -2PLS-2>3PLO HORT to.camp 1PL.S-take-ASP-2PLS-2>3PLO
 'We killed 10. Let's take them to camp.' (Bogoras 1901, Bobaljik et al. 2023)

- Itelmen: suffix replacement, not stacking. not a (simple) Russian calque

- (33) a. regular b. composed c. unattested d. phon OK e. morph OK
 [mn-ił-k] [mn-ił]-sx [*[mn-ił-k]-sx] q-ŋiksx-č q-ančp-miŋ-sx
 [mn-ił-kičen] [mn-ił]-sx [*[mn-ił-kičen]-sx] 2.IRR-sleep-2SG 2.IRR-teach-1SG.O-2PL
 1PL.IRR-go-1.S 1PL.IRR-go-2PL 1PL.IRR-go-1.S-2PL 'sleep!' 'teach me!'

- (34) last ... łəm-sx-ŋi?n? skažem desjat n-łəm-če?n [portmanteaus]
 how.many kill-2PLS-2>3PLO say 10 1PL.S-kill-1>3PLO
 'How many did y'all kill? Let's say we killed 10.' (Bogoras 1901)

- (35) Attested 2PLA>3O

Corresp. 1PLA>3O forms:

mən-čanzo-sx	let's follow (it)	mən-čanzo-čen	Bog.	Class I
mán-łam-sxen	let's kill them	mán-łam-če?n	Joch	
x[ă]n-əntxla-s[x]ŋin	let's take him	x[ă]n-əntxla-kičen	Vol.	Class II
mn-əntxla-qzu-sxŋi?n	let's take them	mn-əntxla-qzu-kiče?n	Bog.	

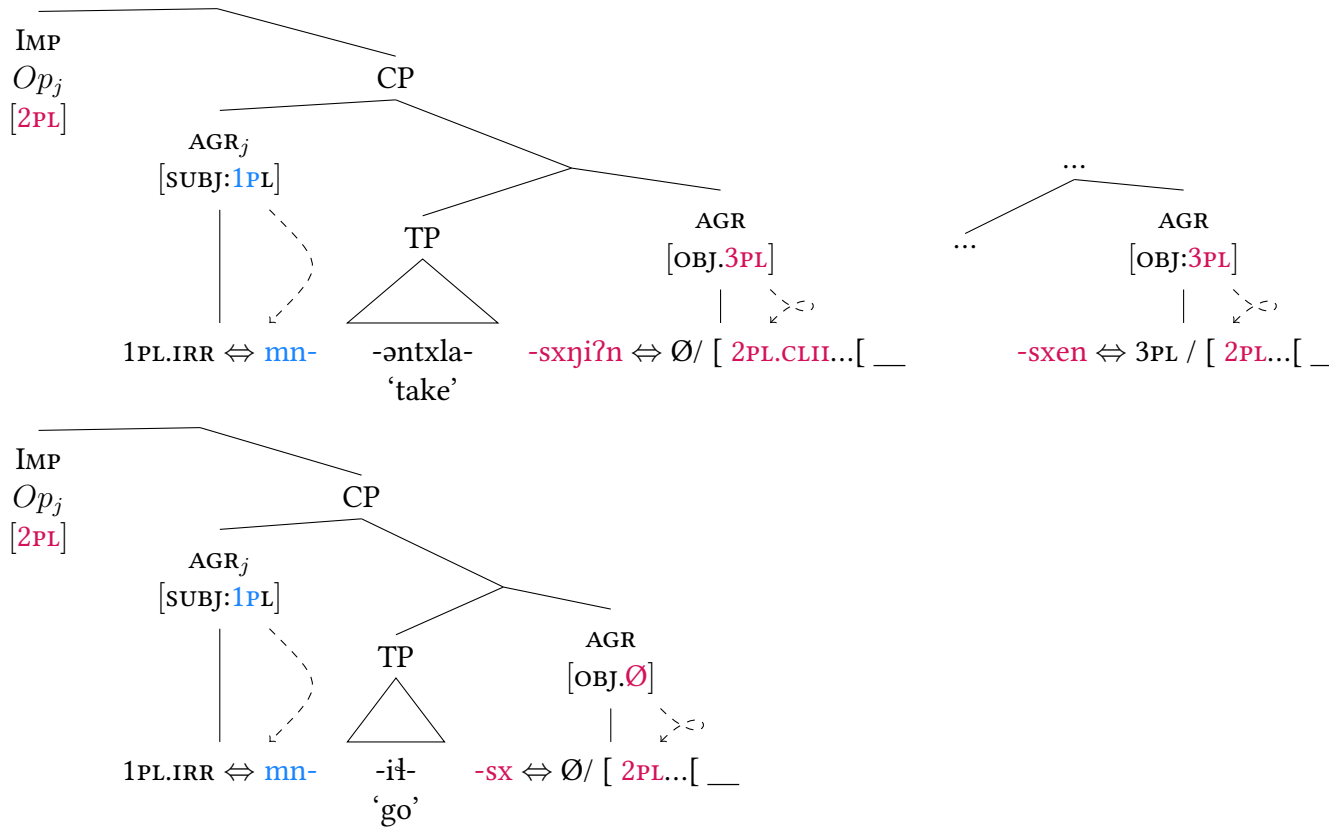
(36) **Asymmetry II:** Itelmen-specific questions (composed inclusive)

- Why suffix replacement, not stacking (cf. Russian, Turkic)?
- Why 1PL-V-2PL not 2PL-V-1PL?

(37) Answer: special way C-K agreement works (prefix-suffix asymmetries)

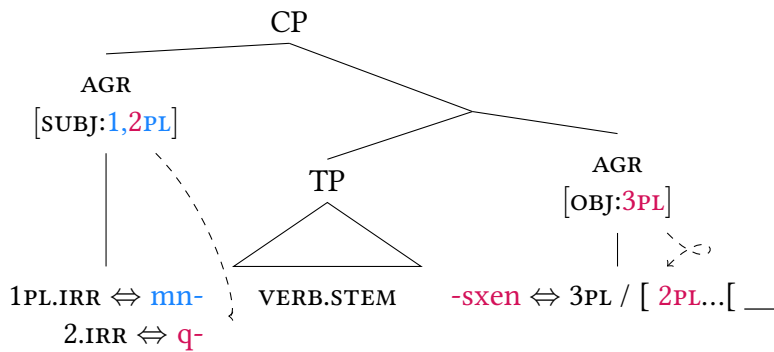
Prefix = subject agreement

Suffix = object agreement, plus contextual allomorphy (for mood and higher ϕ)



(38) If clusivity not parameterized (Ackema & Neeleman 2018)

unexplained: restriction to imperatives (cross-linguistic); prefix-suffix difference (Itelmen)



4 Probing alternatives

- What would it take to do this with Probe-Goal agreement only?

(39) Mimic account here:

- Upward probing needed to get 2PL from IMP
- All probing is upwards (Reverse Agree, Wurmbrand 2011 a.o.)?
- (Or first downwards, then upwards, cf. Béjar & Rezac (2009))

(40) Implausible (Mirror Generalization):

- agreement (and class) morphology is peripheral (outside of ASP, TNS).
- Moving SUBJ, OBJ, OBL to high heads first would need another set of probes
- prefix-suffix asymmetry re: IMP[2PL] ?
- Special problem with oblique agreement / prominence (Bobaljik & Wurmbrand 2002)
- NB. Chukotkan might be “high ABSOLUTIVE” (Royer 2025)

(41) More conventional? Multiple (or Insatiable Deal (2015, 2024)) Probes

(42) Some issues for both generalized probes and simple probes + allomorphy

- GF-discriminating probes (Itelmen has no Subj v Obj case)
- Optionality in Itelmen? (unlike Russian, Turkic, Udmurt)
- Fine structure of suffix complex

5 Conclusions

References

- Ackema, Peter & Ad Neeleman (2018) *Features of Person: From the Inventory of Persons to Their Morphological Realization*. Cambridge MA: MIT Press.
- Antonov, Anton (2015) Verbal allocutivity in a crosslinguistic perspective. *Linguistic Typology* 19(1): 55–85.
- Baker, Mark C. (2024) *Complementizers Relating to Noun Phrases: Rare Constructions within a Theory of Universal Grammar*. Open Science Press.
- Béjar, Susana & Milan Rezac (2009) Cyclic Agree. *Linguistic Inquiry* 40(1): 35–73.
- Bobaljik, Jonathan David (2000) The ins and outs of contextual allomorphy. In *University of Maryland Working Papers in Linguistics*, vol. 10, Kleanthes K. Grohmann & Caro Struijke, eds., College Park, MD: University of Maryland, 35–71.
- Bobaljik, Jonathan David (2008) Missing Persons: A case study in morphological universals. *The Linguistic Review* 25(1-2): 203–230.
- Bobaljik, Jonathan David (2012) *Universals in Comparative Morphology: Suppletion, Superlatives, and the Structure of Words*. Cambridge: MIT Press.
- Bobaljik, Jonathan David, Maria Pupynina, & Arzhaana Syuryun, eds. (2023) *Bogoras’s 1901 Itelmen Notebooks*. Fürstenberg/Havel: Kulturstiftung Sibirien.

- Bobaljik, Jonathan David & Susi Wurmbrand (2001) Seven Prefix-Suffix Asymmetries in Itel'men. In *Papers from CLS 37: The Panels.*, Mary Andronis, Christopher Ball, Heidi Elston, & Sylvain Neuvel, eds., 205–219.
- Bobaljik, Jonathan David & Susi Wurmbrand (2002) Notes on Agreement in itelmen. *Linguistic Discovery* 1(1).
- Carstairs, Andrew (1987) *Allomorphy in Inflexion*. Croom Helm Linguistics Series, London: Croom Helm.
- Corbett, Greville G. (2000) *Number*. Cambridge: Cambridge University Press.
- Cysouw, Michael (2003) *The Paradigmatic Structure of Person Marking*. Oxford: Oxford University Press.
- Deal, Amy Rose (2015) Interaction and satisfaction in ϕ -agreement. In *Proceedings of the Forty-Fifth Annual Meeting of the North East Linguistic Society (NELS 45)*, T Bui & Deniz Özyıldız, eds., GLSA Publications.
- Deal, Amy Rose (2024) Interaction, satisfaction, and the PCC. *Linguistic Inquiry* 55(1): 39–94.
- Dobrushina, Nina & Valentin Goussev (2005) Inclusive imperative. In *Clusivity*, Elena Filimonova, ed., Amsterdam/Philadelphia: John Benjamins, 179–211.
- Erdal, Marcel (2004) *A grammar of Old Turkic*. Leiden: Brill.
- Fenger, Paula (2018) Multiple agreeing persons is not that special: Restrictions on person portmanteaux. *U. Penn Working Papers in Linguistics* 24(1): 1–10.
- Fenger, Paula (2024) How to stick together: What phonology can tell us about the syntax of Multiple Agree, ms. Universität Leipzig.
- Filimonova, Elena, ed. (2005) *Clusivity: Typology and case studies of the inclusive-exclusive distinction*. Amsterdam: John Benjamins.
- Forchheimer, Paul (1953) *The Category of Person in Language*. Walter de Gruyter.
- Goussev, V. Ju. (2005) *Типология специализированных глагольных форм императива*. Ph.D. thesis, Institute of Linguistics, RAS, Moscow.
- Greenberg, Joseph (1963) *Universals of Language*. Cambridge, Mass.: MIT Press.
- Harbour, Daniel (2014) Paucity, abundance, and the theory of number. *Language* 90(1): 185–229.
- Harbour, Daniel (2016) *Impossible Persons*. Cambridge: MIT Press.
- Jakobson, Roman (1932) Zur Struktur des russischen Verbums. In *Charisteria Gvilelmo Mathesio qvinqvagenario a discipulis et Circuli Lingvistici Pragensis soladibus oblata*, Prague.
- Kasenov, Daniar (2024) Two agreement affixes in Russian exhortatives: not what they seem., unpublished manuscript Higher School of Economics, Moscow.
- Kaufmann, M. (2012) *Interpreting Imperatives*. Studies in Linguistics and Philosophy, Springer Netherlands, URL <https://books.google.com/books?id=kV5n3wQLRoC>.
- Khrakovskij, V. S., ed. (1992) *Типология императивных конструкций [The typology of imperative constructions]*. Saint Petersburg: Nauka.
- Khrakovskij, V. S. & A. P. Volodin (1986) *Семантика и типология императива: Русский императив*. Leningrad.
- Masliukov, Vsevolod (2024) Let's talk about the morphosyntax of cohortatives in Udmurt! Presentation at MYABL-24.
- McFadden, Thomas (2020) The morphosyntax of allocutive agreement in Tamil. In *Agree to Agree: Agreement in the Minimalist Programme*, Peter W. Smith, Johannes Mursell, & Katharina Hartmann, eds., Language Science Press, 391–424.
- Nevskaya, Irina (2005) Inclusive and exclusive in Turkic languages. In *Clusivity*, Elena Filimonova, ed., Amsterdam: John Benjamins, 341–358.
- Noyer, Rolf (1997) *Features, positions and affixes in autonomous morphological structure*. New York: Garland.
- Ono, Chikako (2021) *Itelmen-go bunpo: Dousi keitairon wo chuusin ni. [Itelmen Grammar: focusing on verb morphology]*. Sapporo, Japan: Hokkai-Gakuen University Press.
- Ross, John R. (1970) On declarative sentences. In *Readings in English Transformational Grammar*, Roder-

- ick A. Jacobs & Peter S. Rosenbaum, eds., Waltham MA: Ginn and Co., 222–272.
- Royer, Justin (2025) Binding and anti-cataphora in Mayan. *Linguistic Inquiry* 56(2): 247–310.
- Santo Tomás, Domingo de (1560) *Grammatica o arte de la lengua general de los Indios de los Reynos del Peru*. Valladolid: Francisco Fernandez de Cordoua, impressor dela. M.R. Acabose a diez dias del mes de Henero.
- Simon, Horst (2005) Only *you*? Philological investigations into the alleged inclusive-exclusive distinction in the secon person plural. In *Clusivity*, Elena Filimonova, ed., Amsterdam: John Benjamins, 113–150.
- Ultan, Russell (1972) Some features of basic comparative constructions. *Working papers on language universals* 9: 117–162.
- Wiltschko, Martina (2021) *The grammar of interactional language*. Cambridge University Press.
- Wurmbrand, Susi (2011) Reverse Agree, ms., UConn.
- Zanuttini, Raffaella (2008) Encoding the addressee in the syntax: evidence from English imperative subjects. *Natural Language & Linguistic Theory* 26(1): 185–218, URL <https://doi.org/10.1007/s11049-007-9029-6>.
- Zwicky, Arnold (1977) Hierarchies of Person. In *Proceedings of*, Chicago Linguistics Society, 714–733.
- Белоусов, В. Н. (1982) История форм повелительного наклонения. In *Историческая грамматика русского языка*, Р. И. Аванесов, В. В. Иванов, & В. Б. Силина, eds., М., 132–153.
- Гусев, В. Ю. (2005) *Типология специализированных глагольных форм императива*. Ph.D. thesis, Институт языкознания РАН, Москва.
- Иванов, В. В. (1983) *Историческая грамматика русского языка*. М.: Просвещение.



Source material (Bogoras 1901) at:
<https://dh-north.org/publikationen/bogoras-s-1901-itelmen-notebooks/>

Table 1: Transitive Agreement: Realis, Irrealis

SUBJECT	OBJECT					
	1sg	1pl	2sg	2pl	3sg oblique	3pl oblique
1sg			t-__-(xk)in m-__-(xk)in	t-__-(ki)sxen m-__-(ki)sxen	t-__-(ki)nen m-__-(ki)nen	t-__-(ki)peʔnen m-__-(ki)peʔnen
1pl			nt-__-(xk)in mən-__-(xk)in	nt-__-(ki)sxen mən-__-(ki)sxen	nt-__-(ki)nen mən-__-(ki)nen	nt-__-(ki)peʔnen mən-__-(ki)peʔnen
2sg	__-(xk)um q-__-(xk)um	__-(xk)uʔm q-__-(xk)uʔm			__-(ki)nen q-__-(ki)nen	__-(ki)peʔnen q-__-(ki)peʔnen
2pl	__-(xk)umsx q-__-(xk)umsx	__-(xk)uʔmsx q-__-(xk)uʔmsx			__-(ki)nensx q-__-(ki)nensx	__-(ki)peʔnensx q-__-(ki)peʔnensx
3sg	__-(xk)um xən-__-(xk)um	__-(xk)uʔm xən-__-(xk)uʔm	__-(xk)in xən-__-(xk)in	__-(ki)sxen xən-__-(ki)sxen	__-(ki)nen xən-__-(ki)nen	__-(ki)peʔnen xən-__-(ki)peʔnen
3pl	n-__-(xk)um xən-__-(xk)um	n-__-(xk)uʔm xən-__-(xk)uʔm	n-__-(xk)in xən-__-(xk)in	n-__-(ki)sxen xən-__-(ki)sxen	n-__-(ki)nen xən-__-(ki)nen	n-__-(ki)peʔnen xən-__-(ki)peʔnen
Impsnl	n-__-(xk)um xən-__-(xk)um	n-__-(xk)uʔm xən-__-(xk)uʔm	n-__-(xk)in xən-__-(xk)in	n-__-(ki)sxen xən-__-(ki)sxen	n-__-(ki)nen xən-__-(ki)nen	n-__-(ki)peʔnen xən-__-(ki)peʔnen

Table 2: 3rd person direct object agreement.

DIRECT OBJECT		
SUBJECT	3sg	3pl
1sg	t-__-(ki)čen m-__-(ki)čen	t-__-(ki)če?n m-__-(ki)če?n
1pl	nt-__-(ki)čen mən-__-(ki)čen	nt-__-(ki)če?n mən-__-(ki)če?n
2sg	<i>Class I Class II</i> __-ən __-čy ^w in q-__-x q-__-čik	<i>Class I Class II</i> __-ə?n __-čy ^w i?n q-__-xi?n q-__-čy ^w i?n
2pl	__-sx(ik) q-__-sx(ik)	__-sxi?n __-xki?n q-__-sxi?n q-__-xki?n
3sg	__-(čin)nen xən-__-(čin)nen	__-(čin)ne?n xən-__-(čin)ne?n
3pl	n-__-(čy ^w ə)nen xən-__-(čy ^w ə)nen	n-__-(čy ^w ə)ne?n xən-__-(čy ^w ə)ne?n
Impersonal	n-__-(ki)čen xən-__-(ki)čen	n-__-(ki)če?n xən-__-(ki)če?n

Table 3: Intransitive Agreement

SUBJECT PERSON	SUBJECT NUMBER	
	sg	pl
1	t-__-k(ičen) m-__-k(ičen)	nt-__-k(ičen) mən-__-k(ičen)
2	__-č q-__-xč	__-sx q-__-sx
3	__-in xən-__-in	__-?n xən-__-?n