

PSEUDO-ERGATIVITY IN CHUKOTKO-KAMCHATKAN AGREEMENT SYSTEMS¹

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Chukotko-Kamchatkan languages seem to display a peculiar split agreement pattern, in which NOMINATIVE-oriented prefixes co-occur with ABSOLUTE-oriented suffixes. I argue that this characterization is misleading, and that the proper analysis takes the agreement systems to reflect a fundamentally NOMINATIVE-ACCUSATIVE, i.e., SUBJECT-OBJECT, alignment in these languages. Evidence for this comes in part from the inventory of agreement morphemes. Though suffixes often reflect either an intransitive subject (S) or an object (O), there are no individual suffixes which group these together: with one exception, suffixes systematically distinguish S from O arguments, either in form or in position. The appearance of simultaneous prefix and suffix agreement with intransitive subjects arises from a morphological requirement that both positions be filled, causing the subject features to be, in essence, copied to the suffix slot when no object is available to contribute features. For Itelmen, this is independently motivated (see Bobaljik & Wurmbrand 1997) by the distribution of agreement suffixes for third person direct objects—as they contribute no person features, those of the subject are copied in.

The Chukotko-Kamchatkan [C-K] languages (Chukchi, Alutor, Kerek, Koryak and Alutor), spoken on the Chukotka and Kamchatka peninsulas in the Far North-East of Russia have a highly complex system of verbal agreement, including both suffixal and prefixal components. These agreement complexes are commonly described (e.g., Comrie 1979, 1981, Spencer 1996, Halle & Hale 1997) as manifesting a unique type of “split” ergativity: the prefixes show a NOMINATIVE(-ACCUSATIVE) alignment while the suffixes show an ABSOLUTE(-ERGATIVE) bias.² This is perhaps remarkable in that, while Itelmen subjects and objects are unmarked for case, the other C-K languages all show ERGATIVE-ABSOLUTE case marking on nouns and pronouns.³

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² I adopt here the (now-standard) terminology, dividing the principal arguments of the clause into A = transitive subject, O = (direct) object and S = intransitive subject. The term ABSOLUTE is used in its traditional function to refer to the grouping of S and O, as distinguished from A. I reserve the term NOMINATIVE for the grouping of A and S, as distinct from O. The intention here is to avoid confusion between the descriptive terms NOMINATIVE, ABSOLUTE—which refer to ways in which arguments pattern together—and the theoretical interpretations of these.

³ Note that Itelmen is also alone among these languages in lacking productive incorporation; though I do not discuss this here, this is potentially relevant given the trend to associate agreement with incorporated

In the first part of this article, I present the data which has led to the characterization of the agreement systems as “split”. This characterization is shown to be superficial in important respects. Itelmen agreement in particular is fundamentally aligned along the lines of SUBJECT-OBJECT, i.e., nominative-accusative. As Volodin & Vakhtin 1986 observe, there are no truly absolutive affixes in Itelmen—the appearance of an absolutive bias in the suffixes arises from the requirements of the language’s morphological structure, as argued by Bobaljik & Wurmbrand 1997 (henceforth B&W). In the second part of the article, I discuss Chukchi (representative of the other C-K languages). Close inspection shows that there is certainly a nominative-accusative alignment in this language’s prefix system, as in Itelmen. I present evidence that suffixal agreement in Chukchi is also ordered along nominative-accusative lines, with the exception of the third person plural suffix. Chukchi, then, may be seen as a language with ergative-absolutive case marking, but nominative-absolutive agreement, a pattern well attested in other languages (Dixon 1994).

Characterization of the C-K agreement morphology has implications not only for theories of ergativity (and in particular of ergative splits), but also for theories of the relationship between arguments and agreement, such as various forms of the *pronominal argument hypothesis* (Jelinek 1984, Baker 1996). More deeply, though, the data examined here should shed light on the nature of the interaction between syntax and morphology, on the question: *can we come to know anything about syntax by looking at morphology?*

1. ITELMEN⁴

The received characterization of C-K agreement systems, as noted above, is that the verbal affixes display an ergative split, the prefixes agreeing with A and S (i.e., subjects, the nominative function) and the suffixes agreeing with S or O (i.e., the absolutive function). Thus, transitive verbs display a prefix agreeing with their subject and a suffix agreeing with their object, while intransitive verbs show agreement with the subject twice, once via the prefix and again via the suffix. This description is motivated by data such as the following, from Itelmen.⁵

(1) Transitive verbs

a.	kma	t-ʼlc&qu-(f)in	b.	q-ʼlc&qu-Bum	kma
	I	1SGS/A-see-2SGO		2S/A(IRR)-see-1SGO	me
	‘I saw you’			‘(You) saw me’	

pronouns in polysynthetic languages (see especially Jelinek 1993, Phillips 1993 for analyses which address languages with Ergative splits along these lines).

⁴ This section reports on collaborative work with Susi Wurmbrand and many of the ideas originate with her; a fuller exposition of parts of this material can be found in B&W.

⁵ Except as noted, the Itelmen data was collected over the course of three extended trips to Kamchatka (1993-94, Feb-March and July-Sep 1996). Examples are for the most part from the Northern (Sedanka) dialect of (Western) Itelmen, though there are no differences between the dialects which significantly affect the analysis presented here. Sources [B4-8, S1-4] refer to notebooks, [TX] refers to an in progress collection of texts. Examples are given in IPA, except that s,z in Itelmen are apical, post-alveolar fricatives. Also, sequences written as a glottal stop plus nasal or “/l” correspond to a single, glottalized segment.

The following abbreviations are used in this paper: DATive, ACCusative, NOMinative, LOCative, ERGative, ABSolutive, ASPEct, PRESent, FUTure, IRRealis mood, PASSive, AP=antipassive, S=subject, O=object, IO=indirect object, ØS=impersonal subject, II=class II conjugation, SG=singular, PL=plural. Numbers in the glosses indicate agreement morphemes, e.g., 1SGO is a first person singular object morpheme.

- | | | | | |
|----|---|----|---|-------------------|
| c. | n-ʼlc&qu-(f)in
3PLS/A-see-2SGO
'They saw you' | d. | n-ʼlc&qu-z-(B)um
3PLS/A-see-PRES-1SGO
'They see me' | [S1: 71,75,77,77] |
|----|---|----|---|-------------------|

(2) **Intransitive verbs**

- | | | | | |
|----|--|----|--|-------------|
| a. | kma t-k'o~kic&en
I 1SGS/A-come-1SGS
'I came/arrived' | b. | q-k'o~xc&
2S/A(irr)-come-2SGS
'(You) come !' | [S3: 13,20] |
|----|--|----|--|-------------|

For transitive and intransitive verbs alike, it can be seen that features of the subject (and mood) control the shape of the prefix. Thus, changing the person of the subject changes the prefix, but not the suffix, in transitive pairs such as (1a) vs. (1c) and (1b) vs. (1d). Conversely, the suffix, but not the prefix, is changed when the subject is kept constant and the object is varied as in the pair (1c) vs. (1d). While the subject does not control the shape of the suffix in the examples in (1), it does do so in the intransitive examples in (2). It is examples of this sort which give the impression that the prefix is determined by the subject, be it S or A, hence a nominative grouping, while the suffix is controlled by O or S, an absolutive grouping—the defining characteristic of an ergative-absolutive system.

One reason to be initially wary of this characterization of the Itelmen agreement system is the patterning of agreement with DATIVE arguments. While no verb may agree with more than two arguments, both transitive and intransitive verbs may agree with a dative-marked element such as an indirect (goal) argument or a benefactive (3).⁶

- | | | | |
|--------|---|--------------------------------|--|
| (3) a. | isx-enk
father-LOC
'Will father give you <u>to me</u> ?'
[S3:80] | n-z'1-a~um
ØS-give-FUT-1SGO | kza k'ma-nk?
you me-DAT |
| b. | c&as/it
now
'Now everybody will look <u>at her</u> .' | Bse
all
her-DAT | ʼlc&qu-qza-~ki-nen.
see-ASP-FUT-II-3SGIO
[Volodin 1976, 265] |

When this occurs, the DATIVE element governs agreement in the putatively absolutive position; for first and second person datives, the agreement markers are the same as for direct objects, cf. (3a),(1b,d). Note in particular that these are not instances of dative shift—the element triggering agreement clearly bears dative case morphology in these examples. From the start, then, it is not strictly true that the agreement suffixes reference absolutive arguments.

There is also a deeper reason for being suspicious of the characterization of the agreement suffixes as absolutive (and thus of the agreement pattern as split) and this comes

⁶ B&W discuss in detail the conditions under which agreement with a DATIVE is preferred over agreement with a direct object in Itelmen. Note that (3a) is an “impersonal” construction: the subject is expressed with oblique case and does not trigger agreement on the verb, but unlike a passive (which is lacking in Itelmen), there is no concomitant raising of the object. This can be seen by the fact that the object does not trigger subject agreement.

from the forms of the affixes themselves, as pointed out by Volodin & Vakhtin (1986). The basic Itelmen agreement paradigm is given in (4).⁷

(4)

ITELMEN AGREEMENT				
person-number		A	S	O
1sg.	REAL	t-	t- -kic&en	-Bum
	IRREAL	m-	m- -kic&en	
2sg.	R		-c&	-fin
	I	q̄	q̄ -xc&	
3sg.	R		-n	[see below]
	I	xân-	xân- -n	
1pl.	R	nt-	nt- -kic&e/n	-Bu/m
	I	m'n-	m'n- -kic&e/n	
2pl.	R		-sx	-sxen
	I	q̄ -sx	q̄ -sx	
3pl.	R	n-	-/n	[see below]
	I	xân-	xân- -/n	

Volodin & Vakhtin note that the prefixes quite clearly constitute a nominative grouping; e.g., *t-* indicates [1SG.REAL] for both transitive (1a) and intransitive (2a) verbs. The suffixes, though, are equally clearly *not* the same for the arguments making up the absolutive function. That is, while the suffix slot appears to be absolutive, in that it agrees with either an intransitive subject or a direct object, there are no individual morphemes in this slot which are themselves absolutive. There is one set of suffixes for objects 1sg - (*B*)*um*, 2sg - (*f*)*in*, and another for intransitive subjects 1sg -*kic&en*, 2sg - (*x*)*c&*. To see this more clearly, compare the Itelmen agreement pattern with that of Basque:⁸

(5)

BASQUE AGREEMENT				Volodin & Vakhtin 1986: 121
person-number		A	S	O
1sg		-t	na-	na-
2sg		-k	ha-	ha-
3sg		∅	da-	da-
1pl		-gu	ga- -tza	ga- -tza
2pl		-zu	za- -tza	za- -tza
3pl		-te	da- -tza	da- -tza

A comparison of (4) and (5) shows that only in Basque are there discrete ABSOLUTIVE morphemes, in Itelmen, there are none. There are, though, a few quirks in the overall Itelmen pattern (4) which bear mention.

⁷ Various aspects of Itelmen inflection are omitted from this table as they are not obviously relevant to the points being made here, and would only serve to complicate an already complicated exposition. In addition to minor phonological adjustments and allophony, I have ignored the conditional prefix *k-/q-*, tense and aspect suffixes (closer to the stem than agreement), and the conjugation class II markers. These latter occur between the tense/aspect markers and agreement, and while they do not influence the choice of agreement marker (except in two cases, below) they do show a full range of variation sensitive to person and number of subject and object. See Volodin 1976 and B&W for details and discussion.

⁸ Volodin & Vakhtin 1986 give Basque as the canonical example of an Erg-Abs agreement system. Other examples which they give are Yup'ik (Eskimo-Aleut) and Tzeltal (Mayan).

One of these quirks concerns the element *-sx*. This element occurs with all instances of [2PL] in (4), regardless of grammatical function.⁹ Moreover, *-sx* is the only instance of a suffix marking transitive subject throughout the paradigm (regardless of whether or not there is a [2.IRR] prefix). The suffix *-sx* is anomalous within the grammar of Itelmen in other ways as well, most notably in that it co-occurs with the object suffix. Moreover, while it is always peripheral to the agreement cluster, it sometimes precedes and sometimes follows the object agreement suffix and class II conjugation marker (sometimes varying freely between positions), as illustrated in (6) (see B&W for more discussion). In no other case does a subject agreement suffix co-occur with object person agreement suffixes.

- | | | | | |
|-----|----|---|----|---|
| (6) | a. | q-t[-i-xk-um-sx
2.IRR-bring-II-1SGO-2PLS
'Bring me over there!' | b. | ma-nk t[-i-sx-xk-um?
where-DAT bring-2PLS-II-1SGO
'Where have you brought me?' [S3:71,72] |
|-----|----|---|----|---|

A second anomaly in (4) is the third person plural subject prefix in the realis mood, which varies for transitivity (*n-* transitive, \emptyset intransitive). Note that the *n-* prefix is also used for the (realis) impersonal construction (3a) and in the Southern dialect *n-* is used in place of [1PL.REAL] *nt-*.

Capturing these facts is ultimately important for a complete description of Itelmen agreement, and while they are intriguing deviations from a “clean” pattern, it must be stressed that neither constitutes a counter-example to the claims that (a) the prefixes reference only the features of the subject, and that (b) there are no absolutive suffixes. Intriguingly, both of these anomalies in the otherwise subject-object-oriented agreement system surface again in the related languages, a point which we take up again in section 2.

Taking stock, we find that the Itelmen agreement paradigm in (4) reflects a fundamentally nominative-accusative alignment. While there are special cases to be dealt with, there is certainly no deep ergative-absolutive pattern in these affixes. The question at this point, then, is how the double agreement with intransitive subjects comes about, in particular, what is the nature of the suffix position if it is not absolutive per se, but may nevertheless express features of either S or O.

The answer to this, presented in greater detail in B&W, is that the inflected Itelmen verb follows a template which includes an obligatory suffix slot or *position of exponence* (after Halle 1990, Noyer 1992) for person agreement features, followed by a position for a number marker. The suffix position is canonically controlled by the features of the object. However, in intransitive clauses, there is no object to provide features, but the positions remain. Instead of inserting a default morpheme, the Itelmen verb looks to the higher argument position and *shares* or *copies* the features of the subject into the suffix slot. This process gives rise to the apparent surface absolutive alignment: transitive verbs express O agreement and intransitives, S.

Corroborating evidence that this is the correct way to view Itelmen inflection, comes from agreement on transitive verbs taking third person direct objects, i.e., the cells omitted from (4). The relevant suffixes are given in (7).

⁹ It is also used to mark plural nouns in the VOCATIVE case.

(7)

ITELMEN AGREEMENT: 3 PERSON DO		
SUBJECT	DIRECT OBJECT	
	3SG	3PL
1sg, pl IMPERSONAL	-c&en	-c&e/n
2sg REAL IRREAL	-in -x(c&)	-/n -(x)i/n
2pl	-sx	-sxi/n
3sg, pl	-nen	-ne/n

Recall that for first and second person objects (in (4)) (and for third person indirect objects, not given here), the choice of suffix reflects only the features of the object and is invariant across subjects. For third person direct objects, though, as (7) shows there is no systematicity in e.g., the singular forms. That is to say, while there is a discrete morpheme *-(B)um* which indicates a [1SG] object, there is no single morpheme which reflects a [3SG] object. To the extent that there is a systematicity in (7) it is in that the plural object forms are derived from the singular by glottalization of the final /n/ (or the addition of //n/ to the non-nasal suffixes). This is noteworthy in that glottalized *n* (or glottalization) is the regular plural marker in the language for nouns and adjectives, and indeed also marks pluralization of first person S and O in (4).¹⁰ We conclude, then, that there is a discrete plural morpheme in the forms in (7), but that there are no discrete morphemes which can meaningfully be called third person object morphemes. Rather, the person features expressed by the suffixes in (7) are those of the (transitive) subject.¹¹ B&W conclude that third person (direct) objects in Itelmen lack person features and contribute only number features to suffixal agreement. The template still requires that person features be expressed, and the features of the transitive subject (expressed by the prefix) are thus copied to or shared by the suffix.

Itelmen verb forms with third person objects are thus crucial to the understanding of the agreement system. They demonstrate the obligatoriness of the expression of person features in the suffix, and show that the strategy which the language uses when the object provides no person features is to copy the required features from the nearest available argument, i.e., the subject.¹² This in turn provides independent evidence for the existence of

¹⁰ A caveat must be made here. The nominal plural marker is regularly the suffix *-(V)/n*, even for nasal-final words (but not for *l*-final words). Thus, the two are not entirely identical. Contrast the first person O marker in which pluralization is marked by glottalization of *m*: SG: *-Bum* PL: *-Bu/m*, with *m*-final nouns which are never pluralized by glottalization alone: *mem* ‘summer dwelling’, *meme/n* [PL], (B&W 416-419).

¹¹ The picture might be that much clearer if the pieces of the suffixes reflecting subject person features in (7) were the same as the S-agreement suffixes in (4). On this point, the language is not so obliging, but there is, nevertheless a strong connection between these sets of morphemes which is somewhat obscured by the exposition in the body of this paper. While I have excluded conjugation class II markers from the transitive agreement paradigms, it is important to note that non-agreeing forms of intransitive verbs (infinitives and certain participles) all bear class II inflection. There is thus motivation for treating intransitives as class II verbs. The class II marker which precedes *-c&en* in the top row of (7) is *-ki-*, giving a class II form exactly the same as the intransitive S suffix (compare transitive, class II (8a) with intransitive (2), both with first person subjects). The second person irrealis subject suffixes are likewise *-xc&* for both A and S arguments, and the second person plural suffix is the ubiquitous [2PL] *-sx* (though the intransitives do not show the class II marker *-ik* in either case). The parallels, while enticing, are not complete though: the second person realis suffixes and third person suffixes distinguish A from S (and these from O).

¹² Presumably, the relevant notion of “nearest” here will follow from the syntax.

nominative/subject prefixes, and absolutive suffixes. Unlike Itelmen, the other C-K languages show a regular ergative-absolutive case marking pattern, as illustrated by the Chukchi examples in (9).^{15,16}

- (9) a. **f'm-nan** f't t'-~/u-f't
I-ERG you.SG(ABS) 1SG.SUB-see-2SG.OBJ
 'I saw you.' (Skorik 1977:44)
- b. **f'm** t'-k'tf'ntat-f/ak
I (ABS) 1SG.SUB-run-1SG.SUBJ
 'I ran.' (Skorik 1977:19)
- c. 'rf'-nan **f'm** ne-~/u-f'm
 3PL-ERG **me (ABS)** 3PL.SUB-see-1SG.OBJ
 'They saw me.' (Skorik 1977:45)

The questions which interest us, then, are the following. First, is the Chukchi agreement system truly split, or is the apparent split in Chukchi epiphenomenal as we saw it to be in Itelmen? Second, if the Chukchi system does display a fundamental alignment in the way that Itelmen is fundamentally nominative-accusative, does the system reduce to the same nominative-accusative foundation, or is it underlyingly ergative-absolutive?

We will see presently that the Chukchi agreement paradigm can be analysed as displaying, like Itelmen, a deeply nominative-accusative, i.e., subject-object alignment.¹⁷ The prefixes are clearly organised along these lines, and the bulk of the suffixes are not absolutive in character. More to the point, there are indications that those suffixes which appear to be absolutive occupy different positions when referencing S and O arguments, suggesting that an appeal to a truly absolutive agreement suffix is unwarranted, despite some overlap in forms (the plural marker is an exception). To the extent the conclusions can be sustained, the real ergative split in Chukchi is then similar to that attested in many languages, such as Murinypata and Warlpiri (Australia) and Gahuku (Papuan) in which case-marking is ergative-absolutive but agreement is nominative-accusative (Bittner & Hale 1996, Dixon 1994,94ff).¹⁸

¹⁵ Throughout this paper, Chukchi is taken as representative of all the Northern C-K languages (Chukchi, Kerek, Alutor, and Koryak). To be sure, there are differences among these four languages, but they do not directly bear on the issue at hand. For example, Koryak and Alutor distinguish dual and plural, and the Alutor pluraliser *-wwi* shows a slightly different distribution from that of the Chukchi pluraliser *-((ni)ne)t* (see especially Mel'c&uk n.d.,1988). There are also differences in the tense/aspect system and the environments which require inverse marking (Spencer 1996, Halle & Hale 1997) among the languages.

¹⁶ While both pronouns and full NPs are inflected as A-arguments, only pronouns have a distinct ERGATIVE case suffix. Full NPs when syntactically ERGATIVE are marked with one of the oblique cases, e.g., INSTRUMENTAL or DATIVE, depending upon animacy and other factors. See especially Nedjalkov 1979 for discussion. Note also that there are few aspects of Chukchi syntax which are ERGATIVE in character (Comrie 1979, Nedjalkov 1979).

¹⁷ Fortescue 1997 draws similar conclusions from the data, but views the pattern only in a diachronic perspective, suggesting that the C-K agreement systems reflect a prior stage of having a SUBJ-OBJ alignment. I am claiming here that the contemporary system is equally aligned along these lines.

¹⁸ Dixon (1994, 95f) notes that the split is always in this direction, with NOM-ACC agreement but ERG-ABS case marking and never the other way around. He suggests that this is related to the most likely historical source of agreement as affixed pronouns, since pronouns are systematically NOM-ACC in languages with pronoun versus NP splits.

2.1 Chukchi agreement. The core Chukchi agreement affixes are given in (10).¹⁹

(10)

CHUKCHI AGREEMENT - (TELIC)			
person-number	A	S	O
1sg. REAL IRREAL CONDIT	t- m- t/-	t- -f/ek m- -f/ek t/- -f/ek	-f'm
2sg. R I C	q̄ n/-	-f/i q̄ -fi n/- -f/en	-f't
3sg. R I C	(ne)- (')n- (ne)n/-	-f/i n- -f/en n/- -f/en	-(f/e)n / -nin ²⁰
1pl. R I C	m't- m'n- m'n/-	m't- -m'k m'n- -m'k m'n/- -m'k	-m'k
2pl. R I c	-tk' q̄ -tk' n/- -tk'	-t'k q̄ -t'k n/- -t'k	-t'k
3pl. R I C	ne- 'n- nen/-	-f/et n- -net n/- -net	-(ni)net

As in Itelmen, we find that the prefixes in Chukchi are shared between A-subjects and S-subjects, reflecting thus the category nominative (see also Nedjalkov 1979). For the most part, this is seen straightforwardly in the leftmost columns in (10). As in Itelmen, the third person prefixes add an additional quirk, distinguishing (essentially) transitive from intransitive (see the discussion after (6), above). Though I will not delve into it in this paper, from this quirk of the third person agreement prefixes can be constructed an argument that (part of) the morphemes in the tables which vary for subject person/number and mood are indeed agreement prefixes, and not, e.g., clitic mood markers, as suggested by Halle & Hale

¹⁹ The Chukchi tables show three moods (realis, irrealis, and conditional), as compared with two in Itelmen (realis and irrealis). The conditional was disregarded for Itelmen as it is composed by means of the realis agreement prefixes followed by *-k/-q-*. In Chukchi, there is a good argument that the conditional prefix is *-(n)/-*, likewise preceded by the realis agreement prefixes, though note that the conditional mood in Chukchi also affects choice of suffix for some intransitives. I have omitted here tense and aspectual markers, though these interact occasionally in non-trivial ways with the suffixes (see below). I also do not discuss here those tense/aspect combinations (Skorik's 1977 present II, past II) which are essentially participial in nature and take a different set of agreement morphemes.

As a final caveat, various footnotes in Skorik 1977, 1986 point to some potential complications with the data. For instance, the *-g/e-* of the [1SG], and the [1PL] *-m'k* S argument suffixes are described as "optional" in the presentation of the Past I paradigm (p.19, and p.20, n10), but no such comment is made for any other occurrence of these suffixes. Note also that various person/number combinations for transitive verbs require the INVERSE construction—antipassive morphology on the verb, with transitive syntax and case-marking in the clause (for recent treatments, see Spencer 1996, Halle & Hale 1997).

²⁰ The suffix *-nin* is a portmanteau for the combination of third person singular subject acting on third person object. This is also the one environment where the third person transitive subject prefixes *ne-/'/-* do not surface. Hale & Halle (1997) treat this as being a linear reordering of the *-n-* expressing third person transitive subject. However it is to be regarded formally, the existence of a subject/object portmanteau for what should be the least marked combination (3>3) is a curious and often commented upon idiosyncrasy of the C-K family. This will come up again in the discussion below.

Note also that in all tenses and moods, there is no third person object affix (either singular or plural) if the subject is [2PL]. Only the suffix *-tk'* surfaces.

1997.²¹ Note that this fact—i.e., that the agreement prefixes pick out the nominative (i.e., subject) function even though the overt subject arguments do not form a natural class with respect to case-marking—is alone sufficient to make the point, made elsewhere in the literature (e.g., Bittner & Hale 1996), that case and agreement are necessarily divorced, at least on the surface, contra, e.g., Chomsky 1995.

Turning to the suffixes, one finds a more mixed bag than in Itelmen. Chukchi first and second person singular clearly trigger distinct suffixes for O- and S-agreement. In this, they follow the Itelmen pattern presented above: while the suffix slot reflects features of either S or O, the individual suffixes themselves are not absolutive.

2.2 Apparent exceptions. For first and second plural, the situation is different; it appears that the suffixes *-m'k* and *-t'k* are truly absolutive. Third person is yet more complex in that the suffixes sometimes distinguish S and O (e.g., in the realis mood) but sometimes do not. Despite the complicated, apparently mixed character of the Chukchi suffixes, I will present evidence here that (with the exception of the plural *-t*), the suffixes do not treat the S and O functions alike, to the exclusion of the A. The core of these arguments will come for positional effects, in particular from the interaction of TENSE/ASPECT (T/A) suffixes with the agreement suffixes. First, we will see that the [2pl] suffix is to be regarded as special from any perspective, and thus cannot constitute evidence for an absolutive nature to the suffixes. More strikingly, we will see that many of the putatively absolutive suffixes occupy different positions when they reference S arguments and when they reference O arguments.

2.2.1 [2PL]. In Chukchi, as in Itelmen above, [2PL] is alone among person and number combinations in being consistently expressed by a suffix. Indeed, [2PL] is the only A-argument person/number combination for which there is a suffix. The suffix has two forms, *-t'k* for S and O arguments and *-tk'* for A, differing only in the position of the schwa, and these are clearly cognate to the equally quirky Itelmen [2PL] *-sx*. Given that schwa epenthesis in Chukchi is sensitive to morpheme boundaries as well as syllable structure (Kenstowicz 1979, Krause 1980), it may well be possible to consider this as a single suffix

²¹ The crux of the argument comes from Halle & Hale's discussion of the irrealis mood prefixes and runs roughly as follows: The prefixal element distinguishing transitives from intransitives is *ne-* for REALIS and CONDITIONAL moods, and *'/-* for the IRREALIS. These prefixes are used for all third person transitive subjects except third person singular subjects acting on third person objects. In exactly these cases, there are a special portmanteau suffixes *-nin*, *-ninet*. Now, the prefixal element *-n/-* occurs in all third person subject conditional forms, and *n-* occurs in all third person irrealis forms, regardless of whether or not these elements are in turn preceded by the quirky *ne-* and *'/-*. These distributional asymmetries lead to the conclusion that (at least some of) the prefixes are actually sequences of two prefixes: agreement *ne-*, *'/-* (with their quirky distribution), and conditional *-n/-*, irrealis *-n-*. Turning then to the other prefixes in the conditional mood, all are formed, like the third person, with the realis prefix (or zero, when appropriate), followed by conditional *-n/-*, with minor phonological adjustments to derive *-m'n/-* from [1PL] *-m't- + -n/-*, and *-t/-* from [1SG] *-t- + -n/-*. The former is the more plausible given deletion of the prefix-final *-t-* before the *-n-* of the irrealis as well.

It is important to point out, though, that this analysis of the prefixes is not, as far as I can tell, incompatible with the central points of Halle & Hale's (1997) analysis of the "inverse" or "spurious antipassive" in Chukchi and Koryak. In particular, there is no reason not to treat the *q-* of the second person irrealis as a mood marker, and thus the analysis here is not incompatible with Halle & Hale's suggestion that inverse *-ine-* blocks prefix agreement. Again, a fuller exposition of these issues must be left aside due to limitations of space.

-tk and to derive the variation in schwa epenthesis from morphophonological considerations (though such an account has proved thus far somewhat elusive).²²

An additional point concerning the [2PL] suffixes is that Chukchi *-t'k/-tk'*, like Itelmen *-sx*, is always peripheral to the core inflectional suffixes (for Itelmen, see (6), above). The intransitive suffixes for four tense/aspect combinations are collected in (11).²³

(11)

CHUKCHI INTRANSITIVE SUFFIXES				
SUBJ	PAST I	PRES I	FUT II	FUT I
1sg	-f/ek	-rk'n	-rk'n	-f/e
2sg	-f/i	-rk'n	-rk'n	-f/e
3sg	-f/i	-rk'n	-rk'n	-f/e
1pl	-m'k	-rk'n	-rk'n	-f/e
2pl	-t'k	-rk'n-i-t'k	-rk'n-i-t'k	-N't'k/-nt'k ²⁴
3pl	-net	-rk't	-rk'n-i-N't	-N't

As can be seen from comparison of the leftmost column with the other three, the tense/aspect [T/A] markers *-rk'n* and *-f/e* systematically block most intransitive agreement suffixes. The general plural marker *-(N')t* may follow the tense/aspect marker, but among person-marking agreement suffixes, only [2PL] *-t'k* is not blocked. There is a competition for expression between the S-agreement markers and the T/A markers; in terms of position class theories, T/A *-rk'n* and *-f/e*²⁵ occupy the position where true intransitive agreement markers occur, but the [2PL] suffix occurs in a separate, more peripheral position in Chukchi, as it does in Itelmen.²⁶ While this by no means provides a satisfactory account of

²² Below, I will argue that the plural marker is the only absolutive affix in the language. If so, one may motivate a null, absolutive plural marker following *-tk-* when it marks [2PL] S and O, but not when it marks A. While a different morphological structure for the two forms can be thus motivated, the differing locuses of schwa still do not follow in any obvious way.

²³ The column headers translate Skorik's names for the tenses. Future forms are always formally REALIS. The PAST I forms given are REALIS; this column in all three moods is TELIC; suffixes for the other moods are in (10). The PRESENT I is ATELIC; importantly, the blocking effect obtains through all three moods, the only difference mood makes for this column is that [3PL] is *-rk'-net* in place of *-rk't* in the IRREALIS and CONDITIONAL moods.

²⁴ The alternation between *-N'*- and *-n-* here is phonologically predictable: schwa epenthesis is conditioned by the final segment of the stem; when there is no schwa the velar nasal undergoes place assimilation to the following coronal (Skorik 1977:p.26, n.21).

²⁵ This approach treats the initial element *-f/-* in the singular, intransitive, PAST I suffixes as distinct from the TENSE/ASPECT marker *-f/e-*, which blocks agreement. While this seems to me to be warranted by the data, there may indeed be a deeper generalization which is being missed. Note in addition that [2SG] and [3SG] are apparently homophonous in the PAST I in the REALIS and CONDITIONAL but the two are distinguished in the IRREALIS. A further confound to the identity of [2SG] and [3SG] is that the *-f/-* is reported to be "sometimes" omitted from the second person form, but never from the third person (Skorik 1977:19, n.6).

²⁶ In this case, the T/A marker is inserted preferentially over agreement. Such a situation is familiar from Germanic languages, especially English and various Scandinavian dialects, in which there is agreement in the present (unmarked) tense, but agreement is blocked by the past tense marker. Thus, in English, we have a third person agreement suffix, *-s*, and a past tense suffix *-ed*, but third person past tense forms show only tense marking: *It walk-ed*, **walk-ed-s*. English thus contrasts minimally with other Germanic languages such as German and Icelandic which show both tense and agreement marking cooccurring after the verb

the behaviour of *-t(')k*, these properties of the suffix do suggest that the suffix is perhaps best treated not as an absolutive suffix, but rather as a general [2PL] suffix.²⁷

2.2.2 [1PL]&[3SG]. The blocking effect of T/A suffixes also gives a clue to the apparently anomalous nature of two other suffixes, [1PL] *-m'k* and [3SG] *-(f/)en*. Consider a range of transitive suffixes in two tense aspects: PAST I (unmarked) and PRESENT I (marked by *-rk'n*).²⁸

(12)

CHUKCHI TRANSITIVE SUFFIXES (3SG SUBJ)						
TENSE	DIRECT OBJECT					
	1SG	1PL	2SG	2PL	3SG	3PL
PAST I	**	-m'k	-f't	-t'k	-nin	-ninet
PRES I	**	-rk'nim'k	-rk'nif't	-rk'nit'k	-rk'nin	-rk'ninet

The T/A marker *-rk'n* blocks agreement morphology for intransitive subjects (11), but the same T/A marker systematically fails to block the occurrence of object agreement suffixes (12). Assuming that the T/A marker does not occupy different positions in transitive and intransitive verb forms, it must be that the agreement suffixes occupy distinct positions. Thus, though *-m'k* references [1PL] both as S and as O, the two suffixes occupy distinct positions in the verb template: S-*m'k* occupies the position normally occupied by S-suffixes—a position which is in complimentary distribution with T/A *-rk'n*—while O-*m'k* occupies a different position—the same one as other O agreement suffixes, following that occupied by the T/A suffix. If the T/A marker occupies a fixed position, then the contrast between (11) and (12) shows that the O and S suffixes (at least those examined so far) *systematically* occupy distinct positions in the autonomous morphological structure of the verb.

A similar argument can be made for the more complex case of 3SG *-n* (laying aside the curious 3SG>3 portmanteau *-nin*, see Halle & Hale 1997 for one approach). If we were to consider only the realis (see (10)) then we would conclude that the third person suffixes are like the first and second persons singular (and like all the Itelmen suffixes) in having forms for S-arguments (SG *-f/i*, PL *-f/et*) distinct from those for O-arguments (SG *-f/en*, PL *-net*). In the other two moods though, this asymmetry between S and O vanishes, yielding an

stem. In Bobaljik 1995, Bobaljik & Thráinsson 1997, theories are advanced connecting the morphological difference (whether or not tense and agreement compete for expression) to independently motivated syntactic differences among the Germanic languages. I am unaware of any syntactic evidence from Chukchi which would facilitate an evaluation of the proposals developed for Germanic against Chukchi data.

²⁷ As noted by B&W some sort of peripherality is also shown by the [2PL] morpheme in Russian. Russian forms *inclusive imperatives* (roughly with the meaning “Let’s do x”) with [1PL] agreement suffixes, as in (i), below. These forms can be made polite or formal with the addition of the [2PL] agreement suffix *-te*, as in (ii)—Russian, like French, uses [2PL] forms to express politeness or a formal register.

- | | | | |
|-----|-----------------------|------|--------------------------------|
| (i) | po-id-ëm | (ii) | po-id-ëm-te |
| | ASP-go-1PL | | ASP-go-1PL-2PL |
| | ‘let’s go’ (familiar) | | ‘let’s go (formal or polite).’ |

What is interesting to note about these Russian forms is that plurality is (formally) marked twice on the verb in (ii), first by the [1PL] suffix *-ëm* and then by the more peripheral [2PL] suffix.

²⁸ Forms given are for [3SG] subject, for ease of exposition. Note that the combination of [3SG] subject and [1SG] object in these tenses requires INVERSE marking. The FUT I marked by *-g/e-* or *-N-* in the intransitive does not behave as cleanly as PRES I; we return to it below.

apparent absolutive pattern. Consider, though, the transitive suffixes for third person objects in the same four tenses as given in (11):²⁹

(13)

OBJ	PAST I	PRES I	FUT II	FUT I
3SG	-f/en	-rk'n	-rk'n	-N'n
3PL	-net	-rk'net	-rk'net	-N'net

I assume that the core component of the third person singular agreement is the *-n*; the *-f/-* being likely a default of some sort (see footnote 25). If this is so, then the *-rk'n* forms are unilluminating: we see already in (12) that one *n* deletes when *-rk'n* is followed by an *n*-initial suffix, as, e.g., in the [3SG] object form *-rk'nin* < *-rk'n* + *-nin*. Thus the important forms for both transitive and intransitive are the FUT I forms. For the intransitives, the lack of an *-n* in the final column of (11) constitutes the crucial evidence that [3SG] (S-)agreement is blocked by T/A *-f/e*. In the final column of (13), we find the forms SG *-N'n*, PL *-N'net*. There is a somewhat delicate argument that the correct analysis of these forms takes *-N-* to be the relevant allomorph of FUT I (i.e., an allomorph of *-f/e*) and the following *-n(et)* to be the third person (singular or plural) suffix. Among the intransitive FUT I suffixes, presented in (11), the T/A marker for FUT I takes two forms, *-f/e* and *-N-*. The latter is used if another suffix follows, and the former if no suffix follows. Since forms in the final column of (13) begin with *-N-*, these must consist of two suffixes: T/A *-N-* then singular *-n*, plural *-net*. If the FUT I marker had blocked the agreement suffixes in (13), then it would have surfaced in its word-final allomorph *-f/e* as in (11).

This reasoning finds further support from the forms of the FUT I in the environment of [3SG] subject acting on third person object, i.e., those forms for which there is a special agreement portmanteau *-nin* (SG), *-ninet* (PL). The relevant forms are: *-N'nin(et)* after consonant-final stems, and *-fnin(et)* after vowel-final stems. The *-N'* forms are exactly as expected: the velar nasal is the allomorph of FUT I before another suffix, and the schwa is epenthesized to break up a (generally illicit) three-consonant cluster. The *-f-* initial forms, are likewise the product of the *-N-* allomorph, but as schwa is not epenthesized, the velar nasal becomes adjacent to the subsequent coronal nasal and undergoes dissimilation, becoming a voiced obstruent (Skorik 1977:54 n54). Phonology similarly obscures the identity of non-final *-N-* with [2PL] objects, yielding FUT I variants *-N't'k* and *-nt'k* (cf. fn. 24). The pattern, though, breaks down in the non-inverse forms with [2SG] and first person objects: in these forms, there is no overt suffixal marker of FUT I, only the regular agreement suffixes. On balance, while there is the problem of the zero forms, it is true to say that *-N-* and its phonologically predictable alternates occur only when followed by another suffix, and *-f/e* occurs only when no suffix follows, but it is true only if we analyze *-N'n* as having the [3SG] suffix *-n* following the FUT I. This, then, constitutes the argument that the [3SG] affixes, like the [1PL], occupy different positions when referencing S or O arguments. Only when referencing O arguments are these affixes in complimentary distribution with the T/A markers.

A final, but potentially important, point can be made concerning the interaction of T/A marking and intransitive subject agreement. Recall that the account developed in B&W and

²⁹ These forms are used for all subjects except [3SG] and [2PL]. Recall that there are portmanteau morphemes *-nin(et)* for [3SG] acting on third person—the behaviour of these in FUT I is discussed presently. The four forms for third person objects with [2PL] subjects are: *-tk'*, *-rk'nitk'*, *-rk'nitk'*, and *-f'tk'*. these are not discussed further here.

adopted here takes the occurrence of suffixal agreement with subjects in Itelmen to arise from the necessity of filling in an obligatory position. This arose in two circumstances: first, when the verb is transitive a third person direct object does not contribute person features and those of the subject are “copied in” to fill the slot (illustrated in (8a), above); and second, when the verb is intransitive, thereby lacking a direct object entirely, again the features of the subject fill the otherwise unfilled slots (as in (8b)). Unlike Itelmen, Chukchi has suffixes for third person direct objects, and thus the first environment for copying of subject features to the suffixes does not arise. It is, however, quite suspicious that, as (11) illustrates, intransitive agreement suffixes surface only when there is no overt T/A suffix. While not directly parallel to the Itelmen case, this state of affairs suggests perhaps that in Chukchi too, suffixal agreement with an intransitive suffix arises from the copying or sharing of features to fill in an obligatory position.

2.2.3 Summary. We have seen that there are independent reasons to believe that the superficially absolutive suffixes *-t'k* and *-m'k* and *-n* are not truly absolutive after all. The first of these seems to be a partial reflection of the much more broadly quirky nature of the [2PL] suffixes in the C-K languages generally, and there is at least one reason to think that the [1PL] and [3SG] affixes occupy distinct positions in their different uses.

2.3 Plurality, a true exception. The distribution of the [3PL] *-t* is not explainable in terms of positions the way the three previously considered suffixes were. Unlike, e.g., the [3SG], [3PL] is outside the T/A marker in both transitive and intransitive clauses, providing no evidence for different positions. Moreover, while the plural marker *-t* is also used in the nominal system, [3PL] *-t* does not reference A-arguments and thus it can not be analysed as a general [3PL] marker the way *-tk* (and Itelmen *-sx*) could be seen as a general [2PL] marker, peripheral to the core system. Finally, as noted by Comrie 1979:234 the suffixes of the participial-like PRESENT II show agreement only with the subject in the inverse forms (as expected independently), except in the case of [3SG] subjects acting on third person objects, where *-t* surfaces to agree with a plural object. From a descriptive perspective, the dissociation of number marking from “pure” agreement is not uncommon (for example, plural objects are marked by more general distributive morphology in many languages such as Cherokee (Scancarelli 1987)), but for the purposes of this paper, I leave the characterization of the number marker as a loose end.

3. CONCLUSION

I have shown that Itelmen agreement, when examined in careful detail, turns out to be fundamentally aligned along subject-object lines. The prefixes systematically reference subjects (i.e., the function nominative) while suffixes are primarily object oriented. It is only when there is no object (intransitives) or when the object is lacking in some features (third person direct objects) that features of the subject are copied in to the obligatory positions in the autonomous morphological structure of the verb. For Itelmen, the conclusions appear to be sound. I hope I have shown that Chukchi agreement may plausibly be analysed in a similar fashion, i.e., as following a basically subject-object (i.e., nominative-accusative) orientation. To be sure, parts of the analysis rest on promissory notes (e.g., the position of schwa in the [2PL] suffix) which must be investigated more fully, nevertheless, what I hope has emerged from the discussion is the fact that the bulk of the system does make reference to the function of nominative/subject, i.e., the grouping of A and S arguments, and that no part of the agreement system (except the [3PL] *-t*) examined thus far clearly and systematically treats S and O arguments alike.

Ultimately, the proper description of the C-K agreement paradigms should shed light on a number of issues of broader concern. Foremost among these are the issue of the

relationship between morphology and syntax generally, and more specifically, the nature of ergative splits. For example, Spencer (1996) has cited the split ergativity of the C-K agreement paradigms as evidence against approaches in which the morphology reflects the syntax in a direct manner (as in Halle & Marantz 1993). If the speculations in this paper are on the right track, then the situation is not so bleak. While case-marking does not correlate directly with agreement (as is well attested cross-linguistically, see references above), the functions of subject and object are systematically encoded in the syntax and thus are freely accessible to a morphology which is conceived as interpreting syntactic structure. I have argued here that it is essentially these syntactic functions to which the morphology must make reference, the appearance of a simultaneous reference to an absolutive function arises from an independently motivated quirk of the languages' autonomous morphological structure.³⁰

REFERENCES

- ARD, Joshua. 1978. Subject-based and absolutive-based syntactic processes in Kamchadal. *Lingua* 45, 193-231.
- BAKER, Mark C. 1996. *The polysynthesis parameter*. Oxford: Oxford University Press.
- BITTNER, Maria & Ken Hale. 1996. Ergativity: Toward a theory of a heterogeneous class. *LI* 27, 531-604.
- BOBALJIK, Jonathan David (1995). *Morphosyntax: the syntax of verbal inflection*. Ph.D. Dissertation, MIT, Cambridge, Mass. [Distributed by MIT Working Papers in Linguistics].
- BOBALJIK, Jonathan David & Höskuldur THRÁINSSON (1997). Two heads aren't always better than one. Ms. Harvard University, McGill University and University of Iceland. To appear in *Syntax*.
- BOBALJIK, Jonathan David & Susi Wurmbrand. 1997. Preliminary notes on agreement in Itelmen. In B. Bruening, Y. Kang & M. McGinnis eds., *PF: papers at the interface [MIT Working papers in linguistics 30]*, 395-423.
- CHOMSKY, Noam (1995). *The Minimalist Program*. MIT Press, Cambridge, Mass.
- COMRIE, Bernard. 1979. Degrees of ergativity: Some Chukchee evidence. In *Ergativity: Towards a theory of grammatical relations*, ed. Frans Plank, 219-240. London/New York: Academic Press.
- COMRIE, Bernard. 1981. *The languages of the Soviet Union*. Cambridge. Cambridge University Press.
- DIXON, R.M.W. 1994. *Ergativity*. Cambridge University Press.
- FORTECUE, Michael. 1997. Eskimo influence on the formation of the Chukotkan ergative clause. *Studies in Language* 21.2, 369-409.
- HALLE, Morris. 1990. An approach to morphology. *NELS* 20.
- HALLE, Morris and Ken Hale. 1997. Chukchi transitive and antipassive constructions. Ms. MIT.

³⁰ Another aspect of this issue which arises in the analysis of Chukchi but which has been left untouched here is the nature of the "spurious antipassive", i.e., the occurrence and distribution of constructions in which the verb is antipassive (i.e., formally intransitive) but the arguments of the clause bear normal, transitive case-marking (ERG-ACC). An example is given in (i).

(i)	torf-ʼnan	fʼm	q-in-imti-tʼk	
	you.PL-ERG	me (ABS)	2IRR-AP-carry-2PL.SUBJ	
	'(You-pl) Carry me!'			(Skorik 1977:83)

Such constructions are intriguing, but they are not restricted to Ergative languages, and therefore do not bear directly on the analysis of Ergativity and Ergative splits. In Japanese, for example, passive morphology on the verb in tandem with NOM-ACC case-marking is used to express a form of honorific, as illustrated in (ii) [passive] versus (iii) [spurious/honorific passive] [Note: the verb has been chosen to avoid the confound of verbs for which the potential affix is homophonous with the passive]:

(ii)	neko-ga	inu-ni	kam-are-ta	
	cat-NOM	dog-BY	bite-PASS-PAST	
	'The cat was bitten by the dog.'			
(iii)	sensei-ga	neko-o	kam-are-ta	
	teacher-NOM	cat-ACC	bite-PASS-PAST	
	'The (honourable) teacher bit the cat.'			(Kazuko Yatsushiro, p.c.)

- HALLE, Morris and Alec Marantz. 1993. Distributed Morphology and the pieces of inflection. In *The View from Building 20: Essays in honor of Sylvain Bromberger*, ed. Kenneth L. Hale and Samuel J. Keyser, 111-176. Cambridge, MA: MIT Press.
- JELINEK, Eloise. 1984. Empty categories, case and configurationality. *NLLT* 2:39-76.
- JELINEK, Eloise. 1993. Ergative “splits” and argument type. In *MITWPL 18, Papers on case and agreement*, 15-42.
- KENSTOWICZ, Michael. 1979. Chukchee vowel harmony and epenthesis. In P.R. Clyne, W.F. Hanks & C.L. Hofbauer, eds., *The elements, a parasession on linguistic units and levels*. Chicago Linguistic Society, 402-412.
- KRAUSE, Scott. 1980. *Topics in Chukchee phonology and morphology*. Ph.D., University of Illinois, Urbana-Champaign.
- MEL’C&UK, Igor A. n.d. The dualizer and pluralizers in the Alutor verb. pp.421-438.
- MEL’C&UK, Igor A. 1988. *Dependency syntax: Theory and practice*. New York: State University of New York Press.
- NEDJALKOV, Vladimir P. 1979. Degrees of ergativity in Chukchee. In *Ergativity: Towards a theory of grammatical relations*, ed. Frans Plank, 241-262. London/New York: Academic Press.
- NOYER, Rolf. 1992. *Features, positions and affixes in autonomous morphological structure*. PhD MIT.
- PHILLIPS, Colin. 1993. Conditions on agreement in Yimas. In *MITWPL 18, Papers on case and agreement*, 173-213.
- SCANCARELLI, Janine. 1987. *Grammatical relations and verb agreement in Cherokee*. Ph.D. UCLA.
- SKORIK, Piotr Ja. 1977. *Грамматика чукотского языка, часть II: глагол, наречие, служебные слова [Grammar of Chukchi, vol. II: verb, adverb and auxiliary words]*. Leningrad: Nauka.
- SPENCER, Andrew. 1996. Agreement morphology in Chukotkan. *Essex Research Reports in Linguistics* 10:1-34.
- VOLODIN, Aleksandr Pavlovich. 1976. *Ительменский язык [Itelmen]*. Leningrad: Nauka.
- VOLODIN, Aleksandr P. and Nikolai B. Vakhtin. 1986. Эргативность и механизм глагольного согласования (опыт типологии) [Ergativity and the mechanism of verbal agreement (an experiment in typology)]. In *Палео-азиатские языки [Paleo-Asiatic languages]*, ed. Piotr Ja. Skorik, 111-133. Leningrad: Nauka.

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