Person and Predication in Koryak

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1. Introduction

Based on paradigms like (1) and (2), linguists across theoretical persuasions have noted that person has a more limited distribution of agreement and concord possibilities than number and gender. We see here that person, number, and gender agreement with the subject are possible on verbal predicates (1a, 2a), only gender and number agreement are possible on adjectival predicates (1b, 2b), and no agreement with the subject is possible on nominal predicates (1c, 2c). I will refer to this as the *non-verbal predicate agreement generalization* (NVPAG).

(1) Swahili

    a. ni-li-kuwa   ni-ki-soma-a
       1SG.S-PST-be 1SG.S-CONT-read-FV
       'I was reading.' Ashton (1949)

    b. ni-∅   m-refu
       1SG.S-be CL1-tall
       'I am tall.' (ibid.)

    c. ni-li-po-kuwa   ki-jana...
       1SG.S-PST-when-be CL7-child
       'When I was a child...' (ibid.)

(2) Spanish

    a. Nosotras com-emos las manzanas.
       we.F.PL eat-1PL   the apples
       'We are eating the apples.' (Baker, 2008:22)

    b. Nosotras somos gord-{as/*amos}.
       we.F.PL be.1PL fat-{F.PL/*1PL}
       'We (fem.) are fat.' (ibid.)

    c. Nosotras somos un grup-{o/*as/*amos}.
       we.F.PL be.1PL a.M group-{M.SG/*F.PL/*1PL}
       'We (fem.) are a group.' Baker (2008:15)

In light of this, consider the following sentences of Koryak (<Chukotko-Kamchatkan, Russia), where various non-verbal predicates do show 1st and 2nd person agreement: in (3), we find first person singular morphology on an adjective, in (4) we find the same morphology (modulo vowel harmony) on a resultative participle, in (5), we find first person plural marking on a noun, in (6), we find second person plural marking on a *tough*-predicate, in (7), we find first person dual marking on a predicative numeral, and in (8), we find first person singular marking throughout a complex noun phrase.[1] Note especially the sentence in (5), where the predicate, a collective noun, is interpreted as singular ('a family'), though it is marked with 1st person plural agreement as it is predicated of a first person plural pronoun.

(3) ɣəmmo n-ə-pəttoŋ-eɣəm
    1SG.ABS ADJ-EP-rich-1SG.PRED
    'I am rich.'

(4) ɣəmmo ɣe-jet-iɣəm   əjava-ŋqo
    1SG.ABS RES.PTCP-come-1SG.PRED far.away-ABL
    'I am one who has come from far away.'

(5) muj-u   jajə͡tɕʔ-ə-mojo
    1NSG-ABS.PL family-EP-1PL.PRED
    'We are a family.'

(6) tuj-u   jemɣəmɣ-ə-ɣəjŋ-ə-tojo   ləʔu-k
    2NSG-ABS.PL fear-EP-NMLZ-EP-2PL.PRED see-INF
    'You all are scary to look at.'

[1] The person marking in these examples is usually optional, though often preferred. I don't have any clear generalizations about this optionality, but nothing in my analysis hinges on the agreement being obligatory or not.

(7) liɣi ənno n-iv-ə-n, əno muj-i ŋəje-muji.
know 3SG.ABS 3.S/A.IMP-say-EP-3.S/O.IMP that 1NSG-ABS.DU two-1DU.PRED
'He has no idea[2] that there are two of us (lit. that we are two).' (Vdovin & Jajletkan, 1949:129)

(8) ɣəmmo iwkavav-əna-jɣəm to meʎʎo-na-jɣəm ənan-ewl-ə-lʔ-eɣəm
1SG.ABS Iwkavaw-POSS-1SG.PRED and Melljo-POSS-1SG.PRED SPRL-tall-EP-SPRL-1SG.PRED
ŋavakəka-jɣəm
daughter-1SG.PRED
'I am [Iwkavaw and Melljo]'s tallest daughter.'

In this paper, I argue that the agreement marking on non-verbal predicates in Koryak violates the NVPAG, in particular, in the way that it has been stated in the typological literature by e.g. Stassen (1997). Furthermore, I argue that this agreement marking is fundamentally different from other putative counterexamples to the NVPAG discussed in Baker (2008) (and which he shows to not, in fact, be counterexamples). However, I will argue that the account of the NVPAG presented in Baker (2008) in terms of the Structural Condition on Person Agreement (SCOPA) has the right moving parts to account for the Koryak data. Specifically, I argue that the locus of agreement on non-verbal predicates is not T° (as in the putative NVPAG counterexamples Turkish and Abkhaz, among others) but Pred°, the syntactic element responsible for non-verbal predication. Further, I argue that person morphology spreads across the PredP by a process of person concord independently attested in the Chukotkan language family, though seemingly absent outside of it. Having established this, we can account for the appearance of person agreement on nonverbal predicates while preserving SCOPA.

2. NVPAG and SCOPA

In a typological survey of intransitive predication in 410 languages, Stassen (1997) reports that there are no languages in which there exists person-marking on non-verbal predicates that cannot also occur on verbal predicates. Now, this conclusion is not the same as the NVPAG, as it allows for the existence of person marking on predicative nouns and adjectives that can also appear on verbs. Baker (2008), however, argues that, in a variety of cases where predicate non-verbs show person agreement, the agreement is actually due to the presence of higher verbal material in the clause, and not due to the predicative adjectives or nouns themselves agreeing with the subject. Turkish, where nouns (9a) and adjectives (9b) show person marking when they appear in predicative position, is a case in point.

(9) a. ben öğretmen-im
I teacher-1SG
'I am a teacher.' Kornfilt (1997:78-83), cited in Baker (2008)

b. ben temiz-im
I clean-1SG
'I am clean.' (ibid.)[3]

However, these nouns and adjectives in predicative position can take overt tense marking, just like verbs (10), which, all things being equal, suggests the presence of finite T° in the structure. Additionally, when they take future marking (11), an auxiliary is required, and it is the auxiliary, not the non-verbal predicate, that bears the relevant morphology. These data show that the person agreement on non-verbal predicates to verbal material above PredP, which then attaches onto the predicate. This strategy appears to work for all instances of person agreement on nouns/adjectives that Baker considers.[4]

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[2] The idiom for 'have no idea' in Koryak is made up of the verbal root *liɣi*, used to form the verb 'know', and the imperative form of the verb 'say'.
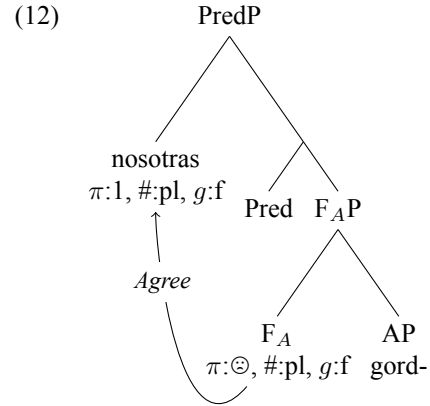
[3] Baker's text mistranslates *temiz* 'clean' as 'dirty', which I have corrected here (Ömer Demirok, p.c.)

[4] Classical Nahuatl is the one language that Baker brings up where the person agreement on nouns and adjectives may not be able to be tied to T, though he refrains from drawing firm conclusions about it due to a lack of sufficient data (Baker, 2008:58-60).

(10) a. ben oku-d-um
I read-PST-1SG
'I read.' Kornfilt (1997:78-83)

b. ben temiz-di-m
I clean-PST-1SG
'I was clean.' (ibid.)

c. ben öğretmen-di-m
I teacher-PST-1SG
'I was a teacher.' (ibid.)

(11) a. ben oku-yacağ-ım
I read-FUT-1SG
'I will read.' Ömer Demirok, p.c.

b. ben temiz ol-acağ-ım
I clean be-FUT-1SG
'I will be clean.' Kornfilt (1997:78-83)

c. ben öğretmen ol-acağ-ım
I teacher be-FUT-1SG
'I will be a teacher.' (ibid.)

Based on this, Baker (2008) argues that the NVPAG is correct, and proposes that this fact has a universal structural explanation based on the following principles: first, functional heads are the locus of agreement; second, the subject of adjectival or nominal predication does not merge directly with an adjectival or nominal phrase, but instead with a higher head Pred(icate)°; third, the Structural Condition on Person Agreement (SCOPA), which states that 1st/2nd person features can only be transmitted in a head-complement or specifier-head relationship. The first principle prevents the nominal or adjectival predicate itself from triggering agreement. The second principle requires the presence of Pred° in a structure involving non-verbal predication, which, when combined with the third principle, forbids person agreement from occurring on non-verbal predicates (modulo the possibility of them combining with T°, as sketched out for Turkish). This is schematized in (12) for the sentence in (2b). Since PredP is obligatorily present in this structure, F_A°, the functional head responsible for agreement and concord on adjectives, is not sufficiently local to the subject of predication to agree with it in person, though it is close enough to it to agree with it in number and gender. Given that Spanish predicative sentences require a tense-marked copular verb (the *somos* in (2b)), when the PredP in (12) combines with the VP headed by the copula, and subsequently with matrix T°, the subject will move into the specifier of TP, another position that can be targeted by agreement. This time, however, the specifier-head relationship between the subject and T° will allow T° to agree with the subject in person as well as number.[5] Baker's SCOPA therefore provides an account of the difference in the ability of verbal and non-verbal predicates to take person agreement.

(12)

PredP
├ nosotras (π:1, #:pl, g:f) — *Agree* →
└ Pred F_AP
        └ F_A (π:☺, #:pl, g:f)   AP (gord-)

3. Koryak Non-Verbal Predicates

The purpose of this section is to show that Koryak is not amenable to an analysis where the source of predicative agreement is on T°, and to argue that it is instead Pred° itself.[6] A short discussion of the language and the data is in order. Koryak is a Chukotko-Kamchatkan language spoken in northern Kamchatka in the Russian Far East. The variety under investigation in the Chawchuven dialect, traditionally spoken by the nomadic reindeer-herding Koryaks, though most speakers now live sedentary lives in villages throughout northern Kamchatka. The language likely has rather less than 1000 speakers across all dialects, most born whom were before 1950. The data discussed in this paper is primarily from elicitation with native speakers of Chawchuven Koryak (henceforth, 'Koryak') carried out in Palana and Petropavlovsk-Kamchatsky, though I have supplemented this data with sentences from textual sources when appropriate.

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[5] Spanish verb agreement is gender-neutral.

[6] It is not obvious that it is really T° that is responsible for subject agreement in intransitive verbs; another candidate for the relevant head is Mood°. In this section, then, I will use T° as a cover term for whatever head it is that is responsible for subject agreement on intransitive verbs.

3.1. Predicative Agreement is not from T°

A variety of evidence shows that T° is not implicated in predicative agreement in Koryak. First, while verbs combine with tense and verbal person/number morphology, nouns and adjectives cannot be marked with these morphemes. Consider, for example, the verb forms in (13). The verb *pʔa-* 'be dry/thirsty' can be marked for present tense with the circumfix *ku- -ŋ*, and can also be marked for a first person subject using the prefix *t-* in the present, or the prefix *t-* and the suffix *-k* in the past tense. Instead of this morphology, we find a suffix *-jɣəm* on a noun or adjective predicated of a first person singular subject.

(13) *Verb*

    a. ɣəmmo t̪-   ə- ko- pʔa   -ŋ   -∅
        1SG.ABS 1SG.S/A- EP- PRS- be.thirsty -PRS -1SG.S
        'I am thirsty.'

    b. ɣəmmo t̪-   ə- pʔa   -k̪
        1SG.ABS 1SG.S/A- EP- be.thirsty -1SG.S
        'I was thirsty.'

(14) *Adjective*[7]

    a. ɣəmmo n-   ə- mejŋ -iɣəm
        1SG.ABS ADJ- EP- big   -1SG.PRED
        'I am big.'

    b. *ɣəmmo t̪ə-   ku- mejŋ -əŋ -∅
        1SG.ABS 1SG.S/A- PRS- big -PRS -1SG.S
        intended: 'I am big.'

    c. *ɣəmmo t-   ə- mejŋ -ə -k
        1SG.ABS 1SG.S/A- EP- big -EP -1SG.S
        intended: 'I was big.'

(15) *Noun*[8]

    a. t͡ɕawt͡ɕəva-jɣəm
        Koryak-1SG.PRED
        'I am a Koryak.'

    b. *t̪ə-   ko- t͡ɕawt͡ɕəva -ŋ   -∅
        1SG.S/A- PRS- Koryak   -PRS -1SG.S
        intended: 'I am a Koryak.'

    c. *t̪-   ə- t͡ɕawt͡ɕəva -k̪
        1SG.S/A- EP- Koryak   -1SG.S
        intended: 'I was a Koryak.'

In fact, Koryak has an entirely separate agreement paradigm for non-verbal predicates. To see this, compare the present tense forms of the verb *pʔa-* 'be dry/thirsty' in (16) with the other columns, which show the predicative forms for a noun, an adjective, and a participle. Outside of the 3rd person, the non-verbal predicative morphology is identical across all of these predicates, modulo surface phonology. This is illustrated in a simplified form in (17), which abstracts over vowel harmony and hiatus resolution. We see here that, if anything, the predicative agreement morphology is similar to the absolute case forms of the pronouns, from which they likely evolved.[9]

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[7] It is possible to verbalize adjectives and nouns, which can then bear finite verb agreement. For example, the adjectival root *mejŋ-* may combine with verbal morphology after being verbalized by the suffix *-et* (i). This reinforces the idea that adjectives and nouns are of the wrong category to combine with agreement from T°.

    i. ɣəmmo t-ə-ku-mejŋ-et-ə-ŋ-∅
        1SG.ABS 1SG.S/A-EP-PRS-big-VBLZ-EP-PRS-1SG.S
        'I am growing.'

[8] Overt pronouns are omitted here for reasons of space; they do not affect the acceptability of the sentences.
[9] Note that the predicative agreement morphology is also unrelated to the pronominal possessive morphology.

		Free		Bound	
		sg	nsg	sg	nsg
(1)	1	ɣəmnin	mut͡ɕəɣin	ɣəmək-	mujək-
	2	ɣənin	tut͡ɕəɣin	ɣənək-	tujək-
	3	ənin	ət͡ɕəɣin	ənək-	əjək-

	Verb pʔa- 'be thirsty'	Noun t͡ɕawt͡ɕəva- 'Koryak'	Adjective mejŋ- 'big'	Participle pʔalʔ- 'thirsty one'
1sg	t-ə-ko-pʔa-ŋ-∅	t͡ɕawt͡ɕəva-jɣəm	n-ə-mejŋ-iɣəm	pəʔalʔ-eɣəm
2sg	∅-ko-pʔa-ŋ-∅	t͡ɕawt͡ɕəva-jɣe	n-ə-mejŋ-iɣi	pəʔalʔ-eɣe
3sg	∅-ko-pʔa-ŋ-∅	t͡ɕawt͡ɕəw-∅	n-ə-mejəŋ-qin-∅	pəʔalʔ-ə-n
1du	mət-ko-pʔa-ŋ-∅	t͡ɕawt͡ɕəva-moje	n-ə-mejŋ-ə-muji	pəʔalʔ-ə-moje
2du	∅-ko-pʔa-ŋ-tək	t͡ɕawt͡ɕəva-toje	n-ə-mejŋ-ə-tuji	pəʔalʔ-ə-toje
3du	∅-ko-pʔa-ŋ-e	t͡ɕawt͡ɕəva-t	n-ə-mejəŋ-qine-t	pəʔalʔ-ə-t
1pl	mət-ko-pʔa-la-ŋ-∅	t͡ɕawt͡ɕəva-mojo	n-ə-mejŋ-ə-muju	pəʔalʔ-ə-mojo
2pl	∅-ko-pʔa-la-ŋ-tək	t͡ɕawt͡ɕəva-tojo	n-ə-mejŋ-ə-tuju	pəʔalʔ-ə-tojo
3pl	∅-ko-pʔa-la-ŋ-∅	t͡ɕawt͡ɕəva-w	n-ə-mejəŋ-qine-w	pəʔalʔ-o

(16)

	Absolutive Pronoun			Predicative Agreement			Verb Agreement		
	sg	du	pl	sg	du	pl	sg	du	pl
1	ɣəmmo	muji	muju	-jɣəm	-muji	-muju	t- -k	mət- -mək	mət- -la-mək
2	ɣət͡ɕt͡ɕi	tuji	tuju	-jɣi	-tuji	-tuju	∅- -∅	∅- -tək	∅- -la-tək

(17)

More importantly, and in contrast to the Turkish pattern discussed previously, when we combine the nonverbal predicates with a tense-marked copula (*it-* 'be' or *nʔel-* 'become'), the predicate retains its person agreement *and* the copula is marked with the relevant finite verb agreement.[10] This shows that non-verbal predicate agreement and verbal agreement must have different sources, as the two are not in complementary distribution. In (18a), for example, the copular lexical verb *nʔel-* 'become' has 2nd person singular aorist marking, while the nonverbal predicate *ʔewwəpt͡ɕ-* 'argue' bears an adjectival prefix and the 2nd person singular non-verbal predicate agreement suffix. The other examples in (18-20) show the same facts for the other indicative tenses.

(18) *Past*

    a. ɣət͡ɕt͡ɕi   ∅-nəʔel-i   tətteʎ n-ə-ʔewwəpt͡ɕ-eɣe
       2SG.ABS 2/3.S/A.IND-become-AOR very ADJ-EP-argue-2SG.PRED
       'You became very argumentative.' (Kekketyn, 2010)

    b. əppoʎo-ma   t-it-ə-k   n-ə-lumŋ-iɣəm
       young-CVB.PRS 1SG.S/A-be-EP-1SG.S ADJ-EP-lazy-1SG.PRED
       'When I was young, I was lazy.'

(19) *Present*

    % ɣəmmo t-ə-k-it-ə-ŋ-∅   ta-ja-ŋ-ə-lʔ-eɣəm
      1SG.ABS 1SG.S/A-EP-PRS-be-EP-PRS-1SG.S make-house-make-EP-S/O.PTCP-1SG.PRED
    'I am a builder.'

(20) *Future*

    a. tuj-u   n-iwl-ə-tuju   ∅-ja-nʔal-la-ŋ-tək
       2NSG-ABS.PL ADJ-tall-EP-2PL.PRED 2/3.S/A.IND-FUT-become-PL-FUT-2NSG.S/O
       'You all will become tall.'

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[10] Some speakers do not accept person-marked nominal complements of overt copulas, and instead require them to be marked with equative case, as nouns in small clauses are (i). Compare (19) with (ii), which all speakers accept.

  i. t-ə-ku-lŋ-ə-ɣi   [SC ɣət͡ɕt͡ɕi   mit-ə-t͡ɕʔ-u   ]
     1SG.S/A-EP-PRS-consider-EP-2SG.O   2SG.ABS skilled-EP-S/O.PTCP-EQU
     'I consider you an expert.'

  ii. ɣəmmo t-ə-k-it-ə-ŋ-∅   doktor-o
     1SG.ABS 1SG.S/A-EP-PRS-be-EP-PRS-1SG.S doctor-EQU
     'I am a doctor.'

b. % muɉ-u   mə͡tɕ-t͡ɕ-el-la-ŋ-∅   inenɣəjulevət͡ɕʔ-ə-muɉu
    1NSG-ABS.PL 1NSG.S/A-FUT-be-PL-FUT-1NSG.S/O teacher-EP-1PL.PRED
    'We will be teachers.'

Both the form and distribution of non-verbal predicative morphology rule out an analysis where this morphology has the same source as verbal agreement. This means that the argument used to show that Turkish non-verbal predicative agreement does not violate SCOPA cannot be extended to Koryak.

3.2. Evidence for Agreeing Pred

Having shown in the previous subsection that T° is not implicated in non-verbal predicative agreement, I will now argue that this agreement actually comes from Pred°. So far, we have not seen any overt evidence of Pred°, allowing us to envision an analysis lacking it entirely. I argue however that there are two environments where where is overtly realized, and, as it turns out, in both cases we find non-verbal predicative agreement on it. The first of these is negated nominal predicates (21), in which an element *elvelʔ-* 'is not' appears, bearing the same set of agreement affixes found on non-verbal predicates. This element occurs in no other context but this one, cf. (22), supporting the conclusion that it is the spellout of Pred°.[11]

(21)   a.   muɉ-u   elvelʔ-ə-muɉu   ʔeqelʔ-ə-muɉu.
          1NSG-ABS.PL NEG.PRED-EP-1PL.PRED enemy-EP-1PL.PRED
          'We are not (your) enemies.' (Vdovin & Jajletkan, 1949:159)

       b.   ɣəmmo   elvelʔ-iɣəm   iwkavav-əna-jɣəm   to
          1SG.ABS   NEG.PRED-1SG.PRED   Iwkavaw-AN.POSS-1SG.PRED   and
          meʎʎo-na-jɣəm   ŋavakəka-jɣəm
          Melljo-AN.POSS-1SG.PRED daughter-1SG.PRED
          'I am not [Iwkavaw and Melljo]'s daughter.'

(22)   a.   *ɣəmmo elvelʔ-iɣəm   a-ml-aw-ka
          1SG.ABS NEG.PRED-EP-1SG.PRED NEG-dance-VBLZ-NEG
          intended: 'I am not dancing.'

       b.   *ɣəmmo elvelʔ-iɣəm   n-iwl-iɣəm
          1SG.ABS NEG.PRED-EP-1SG.PRED ADJ-tall-1SG.PRED
          intended:'I am not tall.'

The other element that I argue corresponds to Pred° is the suffix *-la*, which occurs only on monomorphemic pronouns in predicative position (23).[12] The parallel examples in (23) and (24) illustrate the meaning differences between the *-la* forms and the bare forms of pronouns. In (23a) we see that putting this suffix on the 1st person singular pronoun causes it to be interpreted as 'It's me', rather than 'I'. This form of the pronoun can also be used seemingly in argument position, where the interpretation is that of a cleft.[13] The sentence in (23c) shows that this can also go on predicative adjunct pronouns like *menno* 'where' when the subject is a local person pronoun. The illicitness of (23d) demonstrates the ban on *-la* marking on polymorphemic words: dual and plural absolutive pronouns are composed of a person root and a number suffix, and consequently may not take *-la*.

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[11] This characterization underdetermines the syntactic identity of the head spelled out as *elvelʔ-*. In principle, it could either be a variety of Pred° that selects a nominal complement (a Pred°$_N$, that is), or it could be a Pred° that does not subcategorize for anything in particular, but is realized as *elvelʔ-* by a rule of contextual allomorphy. Not having any explicit arguments for either of these proposals, I will adopt the latter, as it is simpler to encode.

[12] I assume that the homophonous verbal omnivorous plural suffix is unrelated to this one.

[13] I have not been able to find any evidence that Koryak has a cleft construction aside from this one.

(23) a. ɣəmmo-la-jɣəm　　　　　təjetək
　　　1SG.ABS-PRED-1SG.PRED come.1SG.S.PST
　　　'It's me who came.'

　　b. ɣət͡ɕt͡ɕe-la-t͡ɕɣ-eɣe
　　　2SG.ABS-PRED-PEJ-2SG.PRED
　　　'It's damn you.'[14]

　　c. menno-la-jɣe　　　　(ɣət͡ɕt͡ɕi)
　　　where-PRED-2SG.PRED 2SG.ABS
　　　'Where are you?'

　　d. *moj-o-la-mojo
　　　1NSG-ABS.PL-PRED-1PL.PRED
　　　intended: 'It's us.'

(24) a. ɣəmmo　təjetək
　　　1SG.ABS come.1SG.S.PST
　　　'I came.'

　　b. ɣət͡ɕt͡ɕi
　　　2SG.ABS
　　　'you'

　　c. menno pijkəʎ
　　　where teapot.ABS.SG
　　　'Where is the teapot?'

　　d. muj-u
　　　1NSG-ABS.PL
　　　'we'

3.3. Person Concord

So far I have argued that the Koryak evidence supports a view whereby the locus of predicative agreement is Pred° rather than T°, as is consistent with SCOPA. However, as we saw in (8), predicative agreement morphology can show up throughout an internally complex nominal predicate. Were this due to each element in the complex nominal independently agreeing with the subject of predication, it would not be possible to account for this in a SCOPA-compliant way. However, in the same way that many languages show concord in gender and/or number, Koryak noun phrases also show concord in person, where we see the same set of suffixes as in predicative agreement contexts. This is exemplified in the sentences in (25-27), where this morphology appears on a participle, adjective, noun, and numeral that are part of a complex noun phrase headed by a local person pronoun.

(25) *Participle*

muj-u,　　　jejɣut͡ɕewŋ-ə-lʔ-ə-muju,　　　mət-tavetɣəŋ-la-∅　　　wiŋŋet-ə-k
1NSG-ABS.PL study-EP-S/O.PTCP-EP-1PL.PRED 1NSG.S/A-decide-PL-1NSG.S/O help-EP-INF
kolqoz-ə-lʔ-ə-jək-ə-ŋ　　　　　ena-nm-at-ə-k　　　ŋanen-ʔaqalʔ-ə-k.
collective.farm-EP-NMLZ-EP-OBL.NSG-EP-DAT AP-kill-VBLZ-EP-INF that-enemy-EP-LOC
'We students decided to help the collective farm workers kill those enemies.' (Vdovin & Jajletkan, 1949:197)

(26) *Adjective, Noun*

ewon qə-jet-ɣi　　　　ənan-maʎ-t͡ɕəʔ-eɣe　　　appa-piʎʎaq-iɣi　　　　　…
must 2.S/A.IMP-come-2SG.S.IMP SPRL-good-SPRL-2SG.PRED grandfather-DIM-2SG.PRED
jejwet͡ɕ-u q-ine-lŋ-ə-ɣi　　　　ɣə-nan　ɣəmmo jejwel-iɣəm
pity-NFIN 2.S/A.IMP-1SG.O-AUX-EP-2SG.S/A.IMP 2SG-ERG 1SG.ABS orphan-1SG.PRED
'You must come, dearest grandfather… have pity on orphan me.' (Vdovin & Jajletkan, 1949:149)

(27) *Numeral*

mət-ə-pkij-mək　　　　jaja-ŋ　muj-i　　ŋəje-muji
1NSG.S/A-EP-arrive-1NSG.S/O house-DAT 1NSG-ABS.DU two-1DU.PRED
'We two arrived home.' (Stebnickij, 1940:64)

Evidence from noun phrases headed by pronouns shows that the language has a process of noun-phrase internal concord in person, which allows us to account for the appearance of non-verbal predicative agreement on the various elements of complex noun phrase predicates.

4. Analysis

In the previous section, I argued that Pred°, not T°, is implicated in agreement with non-verbal predicates, and that Koryak has a process of person concord that allows 1st/2nd person features on a head to appear throughout the entire phrase. With this established, the analysis follows naturally. In

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[14] Or possibly 'Damn it, it's you' given the morpheme order.

line with Baker's analysis of agreement on nonverbal predicates, I assume that this agreement is due to a probe bearing unvalued ϕ-features. As Koryak does not have grammatical gender, these features are person and number. As shown in the previous section, however, these uninterpretable features are on Pred°, which first probes its complement, and if it finds no person features, its specifier. Here I make two assumptions. First, I assume that 3rd person and singular features are not represented in the syntax. Second, I assume the distinction between *interaction* and *satisfaction* in ϕ-agreement introduced in Deal (2015): the probe on Pred° stops probing (is satisfied) when it finds person features, but will copy (interact with) other features it encounters.[15] Consider the derivation of the sentence in (28) sketched out in (29). The probe on Pred° first probes its complement, but does not copy anything as the complement is 3rd person singular, which is not represented in the syntax. It then probes its specifier, which, by SCOPA, is sufficiently local to it for person features to be copied. Finding person (and number) features on the specifier, it copies them onto itself, after which person concord process argued for in §3.3 spreads those features onto the NP.

(28) muj-u   jajətɕʔ-ə-mojo
      1NSG-ABS.PL family-EP-1PL.PRED
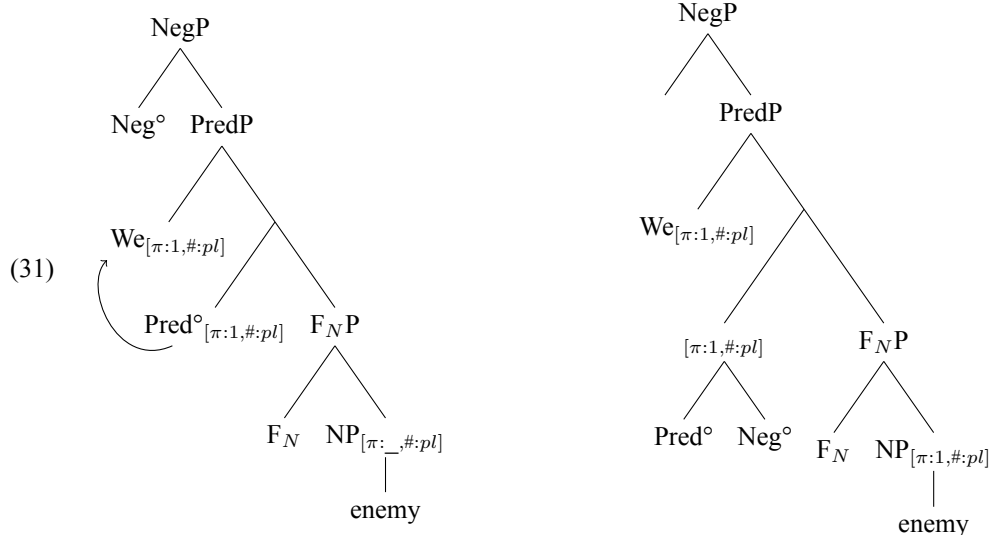   'We are a family.'

(29)
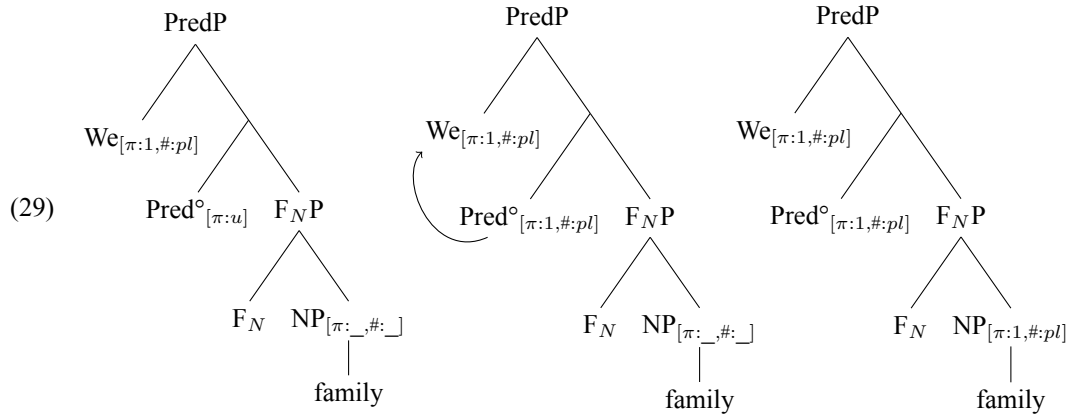
The negative predication cases are derived similarly, we just need to add a rule that lowers Neg° onto Pred°, and a vocabulary insertion rule that realizes that complex head as *elvelʔ-* when it is local to a noun phrase (32).[16]

(30) muj-u   elvelʔ-ə-muju   ʔeqelʔ-ə-muju.
      1NSG-ABS.PL NEG.PRED-EP-1PL.PRED enemy-EP-1PL.PRED
      'We are not (your) enemies.' (Vdovin & Jajletkan, 1949:159)

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[15] One prediction that this makes is that, were the complement of Pred to have non-singular number, Pred would copy that number and not copy the number feature of the subject. This does not seem to be testable in Koryak, as the relevant configuration would require the complement of Pred to be a *plurale tantum* noun that is predicated of a singular pronoun; Koryak, as far as I can tell, has no such nouns.

[16] It could also be that Pred° head-moves to Neg°; I'm not aware of any data that distinguishes these two proposals.

(31)

NegP
├── Neg°
└── PredP
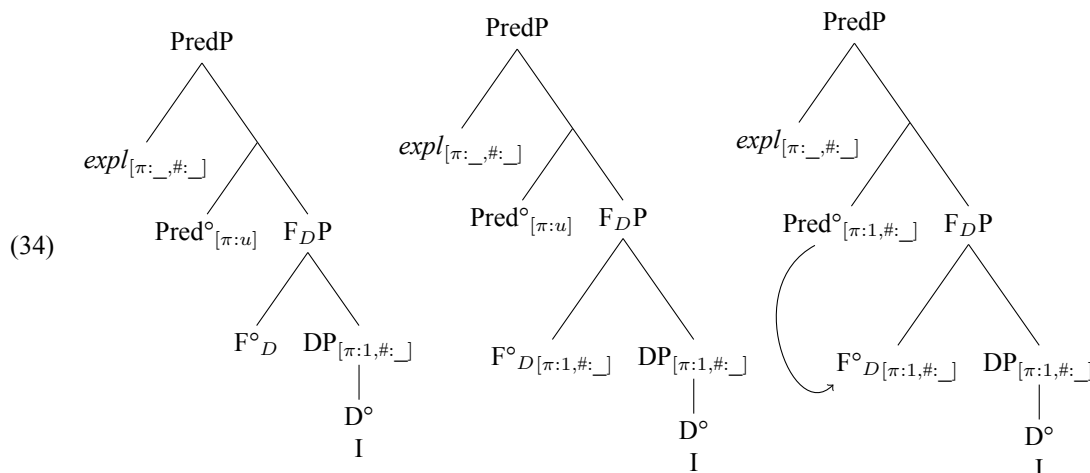   ├── We$_{[\pi:1,\#:pl]}$
    └── (PredP)
        ├── Pred°$_{[\pi:1,\#:pl]}$
        └── F$_N$P
            ├── F$_N$
            └── NP$_{[\pi:\_,\#:pl]}$
                └── enemy

NegP
├── (Neg°)
└── PredP
    ├── We$_{[\pi:1,\#:pl]}$
    └── (PredP)
        ├── $_{[\pi:1,\#:pl]}$
        │   ├── Pred°
        │   └── Neg°
        └── F$_N$P
            ├── F$_N$
            └── NP$_{[\pi:1,\#:pl]}$
                └── enemy

(32) [Neg° Pred°] → *elvelʔ-* / __ F$_N$P

Above, following Baker, I assumed that the probe first probes its complement, and only probes its specifier if it does not find local person features on the complement. What if it does find 1st or 2nd person features in its complement? I take the cases like (33), where the *-la* suffix appears on a pronoun, to instantiate this.

(33) ɣəmmo-la-jɣəm
      1SG.ABS-PRED-1SG.PRED
      'It's me.'

The derivation of this case proceeds as follows: the F°$_D$ copies the ϕ-features of its complement, after which the probe on Pred° probes its complement and copies those features onto itself.

(34)

PredP
├── *expl*$_{[\pi:\_,\#:\_]}$
└── (PredP)
    ├── Pred°$_{[\pi:u]}$
    └── F$_D$P
        ├── F°$_D$
        └── DP$_{[\pi:1,\#:\_]}$
            └── D°
                └── I

PredP
├── *expl*$_{[\pi:\_,\#:\_]}$
└── (PredP)
    ├── Pred°$_{[\pi:u]}$
    └── F$_D$P
        ├── F°$_{D[\pi:1,\#:\_]}$
        └── DP$_{[\pi:1,\#:\_]}$
            └── D°
                └── I

PredP
├── *expl*$_{[\pi:\_,\#:\_]}$
└── (PredP)
    ├── Pred°$_{[\pi:1,\#:\_]}$
    └── F$_D$P
        ├── F°$_{D[\pi:1,\#:\_]}$
        └── DP$_{[\pi:1,\#:\_]}$
            └── D°
                └── I

After this, the D° inside the pronominal DP head-moves to F°$_D$, and then that complex head moves into Pred°, as shown in (35). The vocabulary item in (36) causes the head to be realized as *-la* just in case a D° has moved into it. The head-movement account of the formation of these *-la* complexes provides a way of making sense of the fact that these complexes do not admit of polymorphemic pronouns. Following Harbour (2016), I take pronouns to be complex phrases where each ϕ-feature heads its own phrase. Given that singular is not represented in the syntax, singular pronouns are DPs all of whose syntactic material is on one head. This allows the pronoun to head-move to Pred° without stranding any of its syntactic material, which I assume results in a structure that is uninterpretable at the PF interface. The fact that

polymorphemic pronouns do not form *-la* predicates (37) is then a consequence of their being non-trivial phrases. Given that, first, non-singular number involves a syntactically non-trivial phrase dominating D°, second, that phrases cannot undergo head movement, and, third, that stranding the pronominal Num° is not allowed, only singular pronouns can get *-la* marking.

(35)

PredP

$expl_{[\pi:\_,\#:\_]}$

$[\pi:1,\#:\_]$

$F_D P$

Pred°

$DP_{[\pi:1,\#:\_]}$

$F°_D$ D°
          I
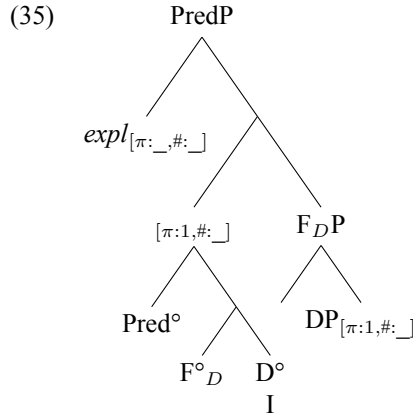
(36) Pred°→*-la*/ [F°$_D$ D°]

(37) a. *moj-o-la-mojo
          1NSG-ABS.PL-PRED-1PL.PRED
          intended: 'It's us.'

      b. *toj-o-la-tojo
          2NSG-ABS.PL-PRED-2PL.PRED
          intended: 'It's you all.'

5. Conclusion

In this paper, I've argued that person agreement marking on non-verbal predicates in Koryak instantiates a previously-unattested pattern for predicative person marking: it is due to a probe on Pred° rather than T°. Evidence for this came from the existence of separate paradigms for non-verbal predicative and verbal agreement (§3.1), the non-complementary distribution of agreement on non-verbal predicates and copulas (§3.1), and the overt realization of Pred in a limited number of environments (§3.2). I've shown that this pattern is due to a combination of this low probe with person concord throughout the PredP, which is independently attested in the noun phrase in Koryak (§3.2). Taken together, this allows us to provide an account of the appearance of person agreement on non-verbal predicates that is consistent with Baker (2008)'s SCOPA.

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