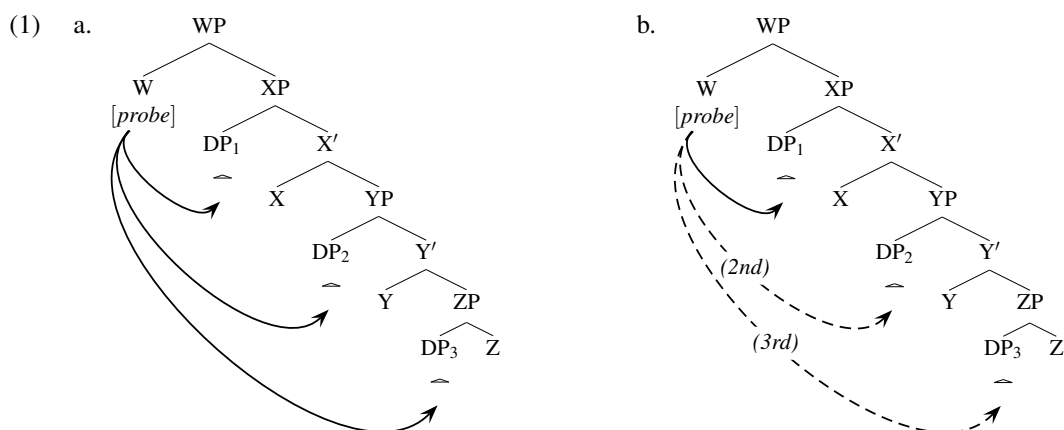


Multiple and Cyclic Agree: Person/Number Marking in Cheyenne

Miloje Despić, Michael David Hamilton, and Sarah E. Murray

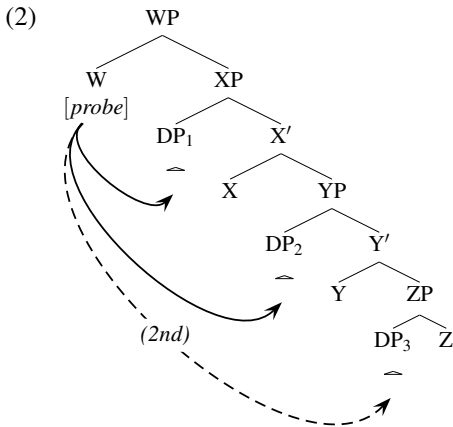
1. Introduction

In the literature on the syntactic operation AGREE, there are two main accounts about how a probe searches its domain to find a suitable goal: Multiple Agree and Cyclic Agree. Under Multiple Agree, a probe simultaneously searches and engages the features of all goals in its domain (e.g., Hiraiwa 2001, 2005, Nevins 2007, 2011, Zeijlstra 2004, etc.). This is shown in (1a). In a Cyclic Agree model (e.g., Béjar & Rezac 2009), a probe searches its domain one argument at a time beginning with the most local goal and, under certain circumstances, the probe may look at the next most local goal if it is not fully satisfied by the features on first argument probed. If the first instance of probing satisfies the probe, however, it bleeds probing of all additional goals in its domain. This is shown in (1b).



Both of these approaches to probing are typically contrasted against each other under the assumption that one could account for all instances of probing and, thus, is the correct characterization of how probing occurs. However, it is possible that there is variation in probes, such that there are different ways in which probing can occur. Moreover, it is *prima facie* conceptually possible that there could be a probe with a mixture of these properties: a probe which would enter multiple cyclic agreement steps, but which would interact with more than one argument simultaneously in (at least) one of these steps. This is exactly what we believe the probe on T^0 in Cheyenne (Algonquian) is like. It is specified to find 1st person plural features and its search domain includes two structurally closest arguments — this is the Multiple Agree part of our proposal, since the probe simultaneously engages with two arguments. But if the probe does not find what it looks for (i.e., 1st person plural) among the first two arguments it probes, and there are more arguments to be probed, then it probes further and enters the second agreement cycle. This is the Cyclic Agree part of our proposal — which can only be seen in ditransitives, since this is the only context in which it is possible to probe more than two arguments. This is shown in (2).

* Miloje Despić, Cornell University, md682@cornell.edu. Michael David Hamilton, Cornell University, mdh287@cornell.edu. Sarah E. Murray, Cornell University, sarah.murray@cornell.edu. We would like to thank John Bowers, participants in the 2016 Winter Syntax seminar at Cornell, and the audiences at GLOW 39, WSCLA 21, and WCCFL 34 for their helpful feedback. Any errors are entirely our own.



Our approach is, empirically speaking, based on a contrast between transitive and ditransitive constructions in Cheyenne. There are two forms for marking the plurality of 1st and 2nd person arguments (as discussed in Section 2). The form of the plural marker for 1st and 2nd person arguments in transitives is always conditioned by the presence of a 3rd person, but in ditransitives, a 3rd person direct object conditions only 2nd person plural arguments — indexing of 1st person plural arguments is insensitive to the presence of a 3rd person direct object. However, in passive and reflexive ditransitive constructions in which there is a shared identity between the subject and indirect object, such that they are both 1st person plural, the 3rd person direct object can condition the form of the 1st person plural marker, just like in transitives. We believe that this requires an approach to Agree which combines properties of both Cyclic Agree and Multiple Agree.

The paper is organized as follows: in section 2 we present four generalizations regarding the distribution of a person/number making verbal affix (the inner suffix) in Cheyenne. In section 3 we present our hybrid account and show that a pure Cyclic Agree or Multiple Agree account does not provide adequate empirical coverage without additional stipulations. We conclude in section 4.

2. Person/number marking in Cheyenne

Similar to other Algonquian languages, the verb in Cheyenne is internally complex and includes multiple person (ϕ) feature indexing affixes. Table 1 shows a morpheme by morpheme break down of a typical Cheyenne verb (although it is not an exhaustive list of all possible prefixes and suffixes).¹ All Cheyenne data and translations come from verb paradigms in Leman (2011), but the morphological analysis and glossing are that of the authors.

Table 1: CHEYENNE TRANSITIVE VERB TEMPLATE *adapted from (Leman, 2011:55)*

prefixes		verb	suffixes				
person	negation	root	verb final	theme sign	negation	inner suffix	mode
<i>Né-</i>	<i>sâa-</i>	<i>vóo</i>	<i>-m</i>	<i>-é</i>	<i>-he</i>	<i>-me</i>	<i>-he</i>
2	not	see	TA	LOC.DIR	NEG	2PL	Q
‘Didn’t you(PL) see me?’							

¹ Orthography: \check{V} voiceless vowel, \hat{V} raised high pitch vowel, \acute{V} high pitch vowel, \bar{V} mid pitch vowel, and \grave{V} low pitch vowel. All final vowels are voiceless (not marked, by convention), but their underlying pitch can affect the pitch of other vowels (see Leman 2011 for more details). Abbreviations: 1 = 1st person, 2 = second person, 3 = 3rd person proximate (topical), 4 = 3rd person obviative (non-topical), A = Set A inner suffix, AI = intransitive verb with animate subject, APPL = applicative, B = Set B inner suffix, DIR = direct, EXC = exclusive, INC = inclusive, INV = inverse, LOC = local (forms with only 1st and 2nd persons), NEG = negation, OBJ = object, OBV = obviative (non-topical), PASS = passive, PL = plural, Q = question, REFL = reflexive, SAP = speech act participant, SG = singular, SUBJ = subject, TA = transitive verb with animate subject and animate object.

In this paper we focus on a single morpheme which in Cheyenne indexes 1st or 2nd person plural argument, which we refer to as the inner suffix (Oxford, 2014).² This morpheme only indexes 2nd person plural or 1st person plural (inclusive or exclusive) in Cheyenne. This morpheme has two different variants, Set A and Set B, shown in Table 2.³

Table 2: INNER SUFFIX

	Set A	Set B
1INC	<i>-ma</i>	<i>-ne</i>
1EXC	<i>-mé(no)</i>	<i>-né</i>
2PL	<i>-mé</i>	<i>-vó</i>

Note that 1st person plural exclusive and 2nd person plural pattern together in Set A forms to the exclusion of 1st person plural inclusive. In Set B forms all three are indexed differently.⁴ The 1st person plural suffixes are differentiated by pitch, which is contrastive in Cheyenne, as exclusive has high pitch (*-né*) and inclusive does not (*-ne*). Examples of Set A are shown in (3).

- (3) a. Né-vôo-sane-**ma**
2-see-AI-**1INC.A**
'**We(INC)** see'
- b. Ná-vôo-sanē-**me**
1-see-AI-**1EXC.A**
'**We(EXC)** see'
- c. Né-vôo-sanē-**me**
2-see-AI-**2PL.A**
'**You(PL)** see'

There are four important generalizations regarding inner suffixes, the first two of which show that the inner suffix preferentially indexes certain arguments. The first generalization is that if a 1st person plural (exclusive) and 2nd person plural argument are present in the same form, only 1st person plural is indexed, as shown in (4).⁵

- (4) a. Né-vôo-m-atse-**meno**
2-see-TA-LOC.INV-**1EXC.A**
'**We(EXC)** saw you(SG/PL)'
- b. Né-vôo-m-e-**meno**
2-see-TA-LOC.DIR-**1EXC.A**
'You(SG/PL) saw **us(EXC)**'

The second generalization is that grammatical role is irrelevant to the conditioning of the inner suffix. There is no contrast in the inner suffix between the pairs in (4) above and (5) below, even though the grammatical roles of the subject and object are reversed in the (a) and (b) examples in both.⁶

- (5) a. Né-vôo-m-ē-**me**
2-see-TA-LOC.DIR-**2PL.A**
'**You(PL)** saw me'
- b. Né-vôo-m-atsē-**me**
2-see-TA-LOC.INV-**2PL.A**
'I saw **you(PL)**'

There next two generalizations relate to the patterning of Set A and Set B inner suffixes. The third generalization is that Set B suffixes appear in transitive forms when the non-indexed argument is 3rd person. This is shown in (6) with the contrast between the use of Set A suffix in (6a), which only includes arguments that are speech act participants (SAP; i.e., 1st and 2nd persons), and the Set B suffix in (6b), which includes a 3rd person argument.⁷

² This corresponds to Slot 5 in Bloomfield (1962).

³ Set A roughly corresponds to M-suffixes of Proto-Algonquian (PA), while Set B corresponds to a combination of W- and N-suffixes in PA (see Goddard (2007) and the references therein for details).

⁴ Set B affixes can appear with an additional *-no(t)* morpheme, the status of which we leave for future research.

⁵ The person prefix shows a different pattern since it indexes 2nd person if both 1st and 2nd person are present.

⁶ Note that the only thing that changes between (5a) and (5b) are the theme signs, e.g., *-atse* and *-e*.

⁷ Transitive forms with a 1st person plural inclusive argument and another SAP argument do not appear in the grammar (Leman, 2011), and so the same Set A-B contrast below cannot be shown.

- (6) a. Né-vôo-m-atse-**meno**
2-see-TA-LOC.INV-**1EXC.A**
'**We(EXC)** saw you(SG/PL)'
- b. Ná-vôo-m-ó-**ne**
1-see-TA-DIR-**1EXC.B**
'**We(EXC)** saw her/him'

Grammatical role in Set B forms, similarly to Set A forms, is not relevant to indexing. This is shown in (7) since the inner suffix does not change between the (7a) and (7b) although the grammatical roles are switched. This is pattern is consistent across all SAP plural arguments in Set B, as in Set A.

- (7) a. Né-vôo-m-ò-**ne**
2-see-TA-DIR-**1INC.B**
'**We(INC)** saw her/him'
- b. Né-vôo-m-ae-**ne**
2-see-TA-INV-**1INC.B**
'S/he saw **us(INC)**'

However, in ditransitive forms there is an unexpected asymmetry in the appearance of Set A and Set B affixes across SAP plural arguments. The fourth generalization is that a Set B suffix always appears when a 3rd person direct object is present in ditransitives with 2nd person plural forms, but not necessarily with 1st person plural forms. This is shown for 2nd person plural in (8). A Set A inner suffix appears in transitives without a 3rd person argument, such as in (8a), but a Set B inner suffix appears in corresponding ditransitive with a 3rd person direct object, such as in (8b).

- (8) a. Né-mêa?tov-ē-**me**
2-give.away-LOC.DIR-**2PL.A**
'**You(PL)** gave me away'
- b. Né-mêts-é-nóvo
2-give-LOC.DIR-**2PL.B**
'**You(PL)** gave her/him to me'

The same contrast between corresponding transitives and ditransitives does not occur for 1st person plural. A Set A inner suffix appears regardless of whether a 3rd person direct object is present, such as in (9b), or not, such as in (9a).

- (9) a. Né-mêa?tov-atse-**meno**
2-give.away-LOC.INV-**1EXC.A**
'**We(EXC)** gave you(SG) away'
- b. Né-mêt-atse-**meno**
2-give-LOC.INV-**1EXC.A**
'**We(EXC)** gave her/him to you(SG)'

Table 3 summarizes Set A-B patterning across transitives and ditransitives. The 2nd person plural forms that pattern differently across transitives and ditransitives are highlighted. Plural arguments are represented with double numbers (e.g., 11 represents 1st person plural exclusive).

Table 3: INNER SUFFIX SUMMARY

Set	Transitive (S>DO)	Ditransitive (S>IO>DO)
A	11 >2 2> 11	11 >2>3(3) 2> 11 >3(3)
	11 >22 22> 11	11 >22>3(3) 22> 11 >3(3)
	22 >1 1> 22	
		22 >1>3(3) 1> 22 >3(3)
B		
	11 >3(3) 3(3)> 11	11 >3(3)>4(4) 3(3)> 11 >4(4)
	22 >3(3) 3(3)> 22	22 >3(3)>4(4) 3(3)> 22 >4(4)

Although up to this point we have not seen ditransitive forms in which a 3rd person direct object can condition a 1st person plural Set B inner suffix, in fact it is possible, but only when these forms

are reflexive or passive. Compare the transitive (a) examples with the ditransitive (b) examples with reflexives in (10) and passives in (11). In the transitive (a) examples, only SAP arguments are present and the Set A form appears. However, notice that when a 3rd person direct object is included, as in the ditransitive (b) examples, the Set B form appears. This is unexpected given the appearance of a Set A suffix in ditransitives with a 3rd person direct object in (9b).

- (10) a. Ná-mêaʔtov-âhtsē-**me**
1-give.away-REFL-**1EXC.A**
'**We(EXC)** gave ourselves away'
- b. Ná-mét-âhtsé-nóne
1-give-REFL-**1EXC.B**
'**We(EXC)** gave her/him to ourselves'
- (11) a. Ná-méaʔt-óné-**me**
1-give.away-PASS-**1EXC.A**
'**We(EXC)** were given away'
- b. Ná-mêt-ané-nóne
1-give-PASS-**1EXC.B**
'S/he was given to **us(EXC)**'

The four generalizations are summarized again in (12).

- (12) PLURAL SAP INDEXING INNER SUFFIXES IN CHEYENNE: 4 GENERALIZATIONS
- 1st person plural is always indexed when present (even when 2nd person plural is present)
 - Grammatical role is irrelevant in transitives
 - Set B forms only appear when a 3rd person argument is present
 - In ditransitives, the 3rd person direct object conditions a Set B allomorph for 2nd person plural, but only for 1st person plural in reflexives and passives

In the next section we present a syntactic analysis which derives these generalizations.

3. Proposal

In this section we present our account of the four generalizations from the Cheyenne data presented in the previous section. Our account has three important elements: (1) a fused person-feature (π -feature) and number-feature (#-feature) probe on T^0 which is only maximally satisfied by a 1st person plural argument, (2) the two structurally closest arguments are probed simultaneously, and (3) the probe can enter into a second agreement cycle if it is not fully satisfied in the first probing cycle. Essentially, our account is a hybrid of Cyclic Agree (the potential for a two-cycle probing system) and Multiple Agree (simultaneous probing in the first cycle). We introduce the three elements of our proposal and discuss why the data necessitates a hybrid account and not either a pure Cyclic or Multiple Agree account.

3.1. Fused probe

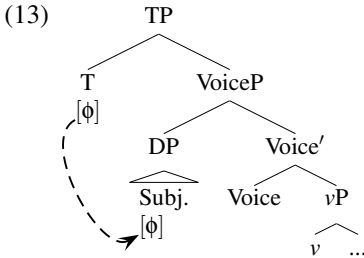
In Table 4 we propose the mapping of the typical Cheyenne verb (from Table 1) to functional heads. Following recent analyses of Proto-Algonquian (Oxford, 2014) and Mi'gmaq (Coon & Bale, 2014), we locate the inner suffix in T^0 .⁸

Table 4: MAPPING THE VERB TO FUNCTIONAL PROJECTIONS

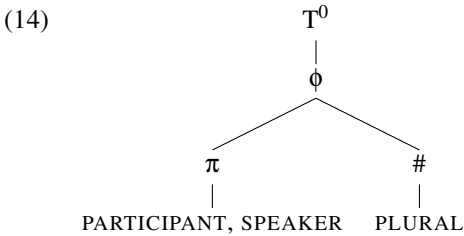
prefixes		verb	suffixes				
person	negation	root	verb final	theme sign	negation	inner suffix	mode
		✓	v^0	Voice ⁰	Neg ⁰	T^0	C^0
<i>Né-</i> 2	<i>sâa-</i> not	<i>vóo</i> see	<i>-m</i> TA	<i>-é</i> LOC.DIR	<i>-he</i> NEG	<i>-me</i> 2PL	<i>-he</i> Q
'Didn't you(PL) see me?'							

⁸ We do not take a stance with respect to the position of the person prefix and negative prefix in Table 4, since nothing in our account hinges on a particular analysis.

We propose that the inner suffix is indexed by a ϕ -probe on T^0 which specifically searches for a DP with ϕ -features. We assume a probe-goal account of AGREE (Chomsky, 2000, 2001), in which a probe with unvalued features searches its local (e.g., via c-command) domain for a goal with valued features. In intransitives, the probe on T^0 finds a goal with ϕ -features, e.g., the subject in Spec-VoiceP in (13), and is valued accordingly.



In order to derive the fact that the inner suffix only indexes SAP plural arguments, the ϕ -probe on T^0 must have at least two characteristics: (1) both unvalued person (π) and number (#) features, and (2) these are fused such that they are only valued when an argument has both person and number valued (Coon & Bale, 2014). This is shown in a sample representation of the probe with privative features in (14).



Additionally, the intransitive data shows that the probe has certain preferences, since only SAP plural arguments are indexed. There is also a preference for 1st person over 2nd person arguments (Generalization #1), as shown with *-meno* in (15).

- (15) a. Né-vôo-m-atse-**meno**
2-see-TA-LOC.INV-**1EXC.A**
'**We(EXC)** saw you(SG/PL)'
- b. Né-vôo-m-e-**meno**
2-see-TA-LOC.DIR-**1EXC.A**
'You(SG/PL) saw **us(EXC)**'

This indicates to us that the probe in T^0 is actually specified to search for a 1st person plural argument — it is fully satisfied only if it finds an argument with both 1st person π -features and a plural #-feature. This is the first important part of our proposal. This assumption explains why the probe agrees with the 1st person plural argument, even if the other argument is 2nd person plural: the probe is not fully satisfied by 2nd person plural features.⁹

3.2. Simultaneous probing

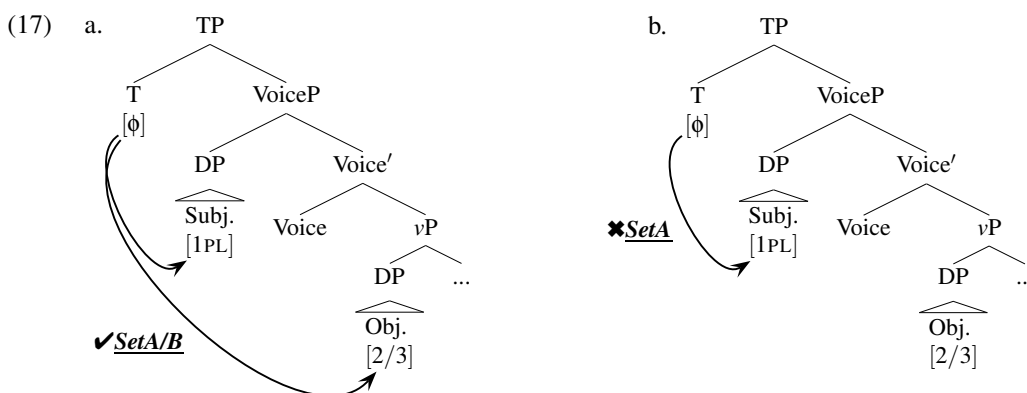
What (15) also shows us is that grammatical role is not relevant (Generalization #2), since regardless of whether it is the subject or object, 1st person plural is indexed and with the same allomorph. However, the form of the morpheme that marks the 1st or 2nd plural argument is conditioned by the presence of a 3rd person argument (Generalization #3). For instance, a 1st person plural exclusive subject takes the Set B form *-ne*, only when a 3rd person argument is present, as in (16b). Otherwise, it takes the Set A form *-meno*, as in (16a).

⁹ Note that under our account, π -probe preferences are arbitrary, rather than indicative of either: (i) a Person Hierarchy, e.g., 1>2>3 or 2>1>3, or (ii) a universal articulated π -feature system, e.g., Harley & Ritter 2002.

(16) a. Né-vôo-m-atse-**meno**
 2-see-TA-LOC.INV-**1EXC.A**
 ‘**We(EXC)** saw you(SG/PL)’

b. Ná-vôo-m-ó-**ne**
 1-see.TA-**DIR-1EXC.B**
 ‘**We(EXC)** saw her/him’

Thus, T^0 must be able to probe (at least) two arguments – (i) the 1st or 2nd person plural argument, with which it agrees, and (ii) the other argument, in order to determine whether it is a 3rd person argument, which conditions the Set B morpheme, or not. Thus, the second important part of our proposal is that the probe in question simultaneously probes the two structurally closest arguments in its domain.¹⁰ In transitive forms, T^0 will simultaneously probe both arguments, and if it finds a 1st or 2nd person plural argument, it will agree with it. But whether or not this argument is marked with the Set A or Set B morpheme will be determined by the π -features of the other argument: if the other argument is 3rd person, the Set B morpheme will be inserted, otherwise the Set A morpheme will appear. This means that it is essential that T^0 probes both arguments simultaneously as in (17a), rather than one by one cyclically, as in a Cyclic Agree account in (17b), since the π -features of the subject does not result in bleeding of object probing.



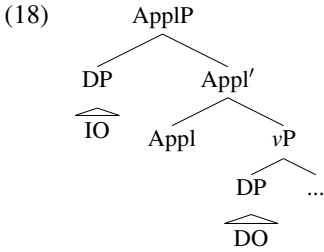
Under our account in (17a), the probe finds a 1st person plural argument in the subject position, with which it agrees, and the π -features of the object conditions the allomorph, e.g., Set B if the object is 3rd person, otherwise Set A. However, under a Cyclic Agree account in (17b), the presence of a 1st person plural subject that fully satisfies the probe, would bleed further probing of the object, and a Set A form would be predicted to appear regardless of the π -feature content of the object. However, this is clearly not the case, as the π -features of the object are crucial in determining allomorphy. Thus, a pure Cyclic Agree account fails to account for this data without further stipulations. At this point, our account of transitive forms resembles a pure Multiple Agree account.

3.3. Second cycle

However, when we consider ditransitive forms, it becomes clear that only the two structurally highest arguments are simultaneously probed. This forms the basis for our account of the asymmetry in allomorphy between 1st and 2nd person plural arguments in ditransitives. First, we assume that in ditransitives the indirect object asymmetrically c-commands the direct object, as argued in other Algonquian languages (e.g., Bruening 2001, Lochbihler 2012, and Hamilton 2015).¹¹ The indirect object (IO) is introduced in the specifier of an Applicative phrase (AppIP) and the direct object (DO) in the specifier of \sqrt{P} (as in transitives). This is shown in (18). Cheyenne appears to pattern with other Algonquian languages in only having 3rd person direct objects in ditransitives (a strong PCC effect; Lochbihler 2012).

¹⁰ Simultaneous probing is necessary if a probe ceases to search when fully satisfied.

¹¹ The data in Leman (2011) does not contradict the Algonquian literature which uniformly assumes that goals are structurally higher than themes. The investigation of underlying structure of ditransitives in Cheyenne is a topic for further research.

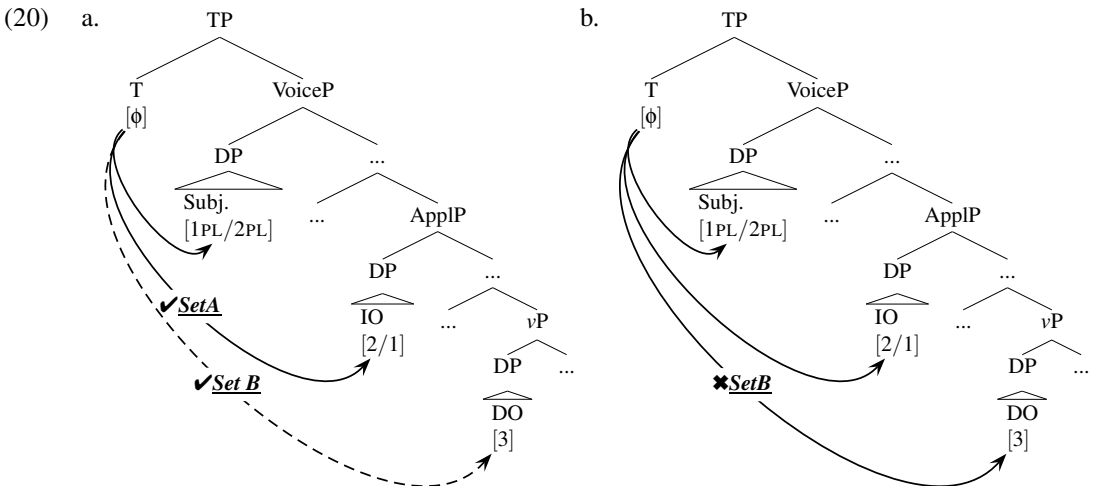


Recall that there is an asymmetry between 2nd and 1st persons in ditransitives (Generalization #4), such that a 3rd person direct object always triggers a Set B allomorph with 2nd person plural, as in (19a), but not necessarily with 1st person plural, as in (19b).

- (19) a. Né-méts-é-nóvo
 2-give-LOC.DIR-**2PL.B**
 ‘**You(PL)** gave her/him to me’
- b. Né-mêt-atse-meno
 2-give-LOC.INV-**1EXC.A**
 ‘**We(EXC)** gave her/him to you(SG)’

If T⁰ simultaneously probes all arguments in ditransitives, as predicted under a pure Multiple Agree account, then this asymmetry would not be expected to arise. However, under our account, this asymmetry follows from our two previous proposals: (i) T⁰ is specified to look for a 1st person plural argument, and (ii) T⁰ simultaneously probes the two **structurally closest** arguments. In transitives it probes both arguments, and regardless of whether it ends up agreeing with the 1st person plural or 2nd person plural argument, it will also be able to see whether the other argument is 3rd person, which would then determine which type of allomorph is inserted (Set A or Set B). This follows from the assumption that the search domain of this probe includes two arguments. But if its search domain is limited to two arguments, then it cannot probe all arguments of a ditransitive verb (only the two structurally closest: the subject and indirect object), because ditransitives include an extra argument (the direct object).

This brings us to the final ingredient of our proposal: the probe in T⁰ can enter a second agreement cycle if it does not find what it is specified to look for (i.e., 1st person plural features) in its initial search domain. The 2nd cycle is contingent on the ϕ -features of the two structurally highest arguments in the first cycle. If the probe does not find a 1st person plural argument among the two structurally closest arguments it initially probes (i.e., the subject and indirect object), it will enter the second agreement cycle and probe the next closest argument (i.e., the direct object), as shown in (20a). Thus, the 3rd person direct object of a ditransitive will be ‘visible’ to T⁰ only if the second cycle is initiated, which never happens if the subject or indirect object is 1st person plural. This differs from a pure Multiple Agree approach, as in (20b), in which all arguments are probed regardless of their ϕ -feature content.

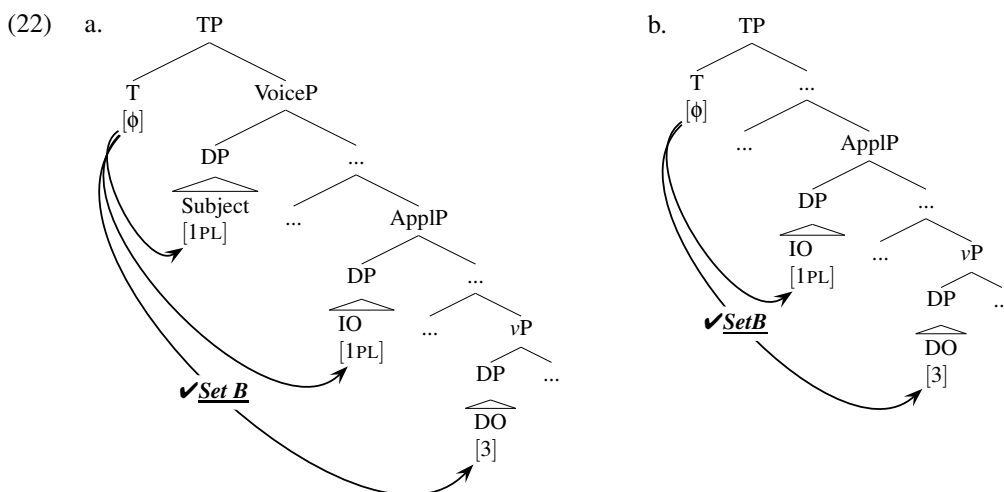


Under our account in (20a), Set A appears when a 1st person plural argument is one of the two structurally highest arguments in the first cycle (and 3rd person is absent), thus satisfies T^0 and bleeds probing of the 3rd person direct object. Set B appears when a 1st person plural argument is not present, thus T^0 is not satisfied and a second cycle of probing occurs, thus the 3rd person direct object conditions a Set B allomorph. Under the pure Multiple Agree approach in (20a), all arguments are simultaneously probed and the 3rd person direct object would incorrectly be predicted to always trigger a Set B allomorph. Thus, a pure Multiple Agree account fails to account for this data without further stipulations. At this point, our hybrid account resembles a more permissive version of Cyclic Agree.

Recall that the 3rd person direct object can only condition a Set B 1st person plural allomorph in reflexives (21a) and passives (21b)

- (21) a. Ná-mét-áhtsé-nóne
1-give-REFL-1EXC.B
'We(EXC) gave her/him to ourselves'
- b. Ná-mêt-ané-nóne
1-give-PASS-1EXC.B
'S/he was given to us(EXC)'

This data supports our proposal that only the two structurally highest arguments are probed in the first cycle under the assumption that these reflexive and passive forms only have two **distinct** arguments; the reflexive in (21a) has identical subject and indirect object DPs (or only one DP with copies in both positions, e.g., Hornstein 1999), and the passive in (21b) only has indirect object and direct object DPs. Thus, both arguments in the passive are probed in the first cycle, and the identity of two structurally highest arguments in the reflexive (if copies of the same or different DPs) causes them to be treated as a single argument, thus this results in the direct object also being probed in the first cycle. This is shown for the reflexive in (22a) and for the passive in (22b). Thus, this explains why ditransitive reflexives and passives pattern with transitives in that all arguments are probed in a single cycle, as a Multiple Agree account, rather than with other ditransitives in having two distinct probing cycles.



In sum, we propose that a ϕ -probe on T^0 is responsible for the inner suffix and has three important characteristics. First, the probe is fused for π - and $\#$ -features, which causes it to only index SAP plural arguments, and has a preference for 1st person plural arguments, which causes it to index 1st person plural when a 2nd person plural argument is also present (Generalization #1). Second, T^0 probes the two closest arguments simultaneously, which derives both (a) the irrelevance of grammatical role in transitives (Generalizations #2) and (b) the ability for the non-indexed argument to condition the Set A-B allomorph, i.e., the absence (Set A) or presence (Set B) of a 3rd person argument (Generalization #3). Third, if neither of the first two probed arguments fully satisfies the probe (i.e., a 1st person plural argument is not present), then the probe can engage in a second agreement cycle if another argument is present (i.e., in ditransitives). This derives the ability for a 3rd person direct object to condition a

2nd person plural Set B allomorph in ditransitives when a 1st person plural argument is not present (Generalization #4).

4. Conclusion

In this paper we have presented a hybrid account of the inner suffix in Cheyenne. We proposed that the inner suffix is the result of a fused π - and #-feature probe on T^0 with a preference to index 1st person plural, and failing that, 2nd person plural. Our account involves an aspect of Cyclic Agree, in that T^0 can potentially engage in two probing cycles, and an aspect of Multiple Agree, in that the first cycle involves simultaneous probing of two arguments. We presented Set A-B contextual allomorphy as evidence that the two structurally highest arguments are probed simultaneously in the first cycle, and that a second probing cycle is possible if: (a) the probe is not fully satisfied by a 1st person plural argument in the first cycle, and (b) there is a third argument (i.e., in ditransitives).

We take our account to indicate that both Cyclic and Multiple Agree must be options available to probes, in addition to our hybrid approach. This is necessary to achieve descriptive adequacy, although it sacrifices parsimony. We also take the availability of the direct object to be probed from T^0 as an indication that a maximally strict definition of locality, such as the strong PIC (Chomsky, 2000), may be too restrictive.

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