

# Aspect-Based Agreement Reversal in Neo-Aramaic

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## 1. Introduction

This paper discusses a pattern of *aspect-based agreement reversal* in Neo-Aramaic languages, in which the function of agreement markers switches between perfective and imperfective aspect. In the examples in (1a–b), for instance, the agreement morpheme that references the object in one aspect references the subject in the other.

### (1) Function of agreement markers switches between aspects:

a. q̄til-í-le.  
kill.PERF-S.3PL-L.3MS  
'He killed them.'

b. qat̄l-í-le.  
kill.IMPF-S.3PL-L.3MS  
'They kill him.'

(Christian Barwar; Khan 2008:167,282)

This reversal is not an instance of aspect-based split ergativity, since agreement in both aspects has a nominative-accusative alignment. As such, agreement reversal persists even in unaccusatives, as seen in (2a–b): the morpheme that references the unaccusative subject in each aspect is the same one that references the transitive subject in (1a–b).

### (2) Reversal extends to unaccusatives:

a. Mámo mít-le                      q̄ðdamta-w...  
Mamo die.PERF-L.3MS morning-CONJ  
'Mamo died in the morning and...'

b. lé-q̄em-i                              r̄aba.  
NEG-grow.IMPF-S.3PL much  
'They do not grow much.'

(Christian Barwar; Khan 2008:132,195)

This is an unusual pattern since it is based on the same distinction as many ergative splits (namely, aspect), but does not appear to involve any ergativity. In this paper, we argue that agreement reversal and split ergativity are nonetheless driven by the same process. We will first show that, despite appearances, there is an asymmetry between the perfective and the imperfective. We then propose that agreement reversal arises because *imperfective Asp introduces an additional  $\varphi$ -probe*, drawing on work on split ergativity which suggests that aspect splits arise because nonperfective aspects are associated with more structure (Laka 2006; Coon 2010; Coon & Preminger 2011). In this way, our proposal provides support for this view of aspect-based splits in case and agreement, since it allows for the apparently disparate patterns of split ergativity and agreement reversal to be given a unified treatment.

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The paper is organized as follows. Section 2 introduces the pattern of agreement reversal. Section 3 discusses the implications of the PCC effect found in the perfective and outlines the basics of our proposal. Section 4 outlines how the presence of an additional  $\varphi$ -probe on imperfective Asp can derive the pattern of agreement reversal, and presents evidence for this account from the behavior of ditransitives and from another unusual aspect split in Senaya. Finally, section 5 shows that our account ties in naturally with recent work on split ergativity (Laka 2006; Coon 2010; Coon & Preminger 2011) and the idea that nonperfective aspects include additional prepositional structure (Demirdache & Uribe-Etxebarria 2000; Coon 2010).

## 2. The pattern of agreement reversal

Many of the northeastern Neo-Aramaic languages have adopted aspect-based splits in agreement, apparently as a result of contact with various split ergative Kurdish languages (Doron & Khan 2012). In a number of Neo-Aramaic languages, this aspect split takes on an unusual form, in that no ergativity appears to be involved. Instead, both sides of the split have a nominative-accusative alignment in agreement, but the subject marking of one aspect is the object marking of the other.

We call this pattern *agreement reversal* and it surfaces in Christian Barwar, Christian Qaraqosh, and related varieties (Khan 2002, 2008; Coghill 2003; Doron & Khan 2012).<sup>1</sup> We focus on Christian Barwar and Christian Qaraqosh here, because these are the most well-documented (Khan 2002, 2008).

Agreement reversal manifests itself in the morphology that attaches to the verb. The Neo-Aramaic languages we discuss here all make use of the verbal template in (3), where the terms *S-suffix* and *L-suffix* refer to different sets of agreement markers.<sup>2</sup>

### (3) Verbal template in Neo-Aramaic:

Verb stem - S-suffix - L-suffix

The paradigms for these morphemes in Christian Barwar, from Khan (2008), are in Tables 1 and 2.

**Table 1:** *S-suffixes in Barwar*

	Singular	Plural
1st person	-ən	-əx
2nd person	-ət	-itu
3rd person	-∅ (m.)/-a (f.)	-i

**Table 2:** *L-suffixes in Barwar*

	Singular	Plural
1st person	-li	-lən
2nd person	-lux (m.)/-ləx (f.)	-ləxi
3rd person	-le (m.)/-la (f.)	-lə/-la

An important fact about these paradigms, which holds in all agreement reversal languages, is that the default S-suffix (3rd person masculine singular) has a null spell-out. This will be important in our analysis, as we will propose that the probe behind S-suffixes is present in some derivations but fails to register agreement and so spells out as default, which is null.

The agreement markers in Tables 1 and 2 combine with a number of different verbal bases, which are formed by means of root-and-pattern morphology. We will be concerned with the imperfective and perfective bases. Some examples of these in Barwar are given in Table 3.

**Table 3:** Barwar verbal bases

Root	Imperfective base	Perfective base
pθx ('to open')	paθəx	pθix
m-šlx ('to strip')	mšaləx	mšoləx
m-plx ('to use')	mapləx	mupləx

<sup>1</sup> Doron and Khan (2012) treat agreement reversal as an case of split ergativity involving *extended ergativity* (i.e. a system in which ergative generalizes to unaccusatives) in the perfective. We do not have the space to discuss their proposal here, though we note that the existence of such ergative systems is controversial and that their account does not provide a principled explanation of the directionality of the agreement asymmetries behind agreement reversal.

<sup>2</sup> Although we adopt this terminology from Khan (2002, 2008), the term *L-suffix* is a misnomer, as we will argue that the L-suffixes are clitics, following Doron and Khan (2012). This is motivated, for instance, by the fact that L-suffixes, but not S-suffixes, can appear outside of other enclitic material, specifically the enclitic auxiliary.

Both of these bases take S-suffixes and L-suffixes in accordance with the verbal template in (3).

The functions of these agreement markers reverse between aspects, however. When attached to the imperfective base, the S-suffix marks subject agreement and the L-suffix marks agreement with a definite or pronominal object. The examples in (4a–c), again from Christian Barwar, illustrate.

(4) **IMPERFECTIVE** *S-suffix = subject, L-suffix = object:*

- a. mɛy-**ən-na** 'ay-bàxta.  
bring.IMPF-**S.1SG-L.3FS** DEM-woman  
'I shall bring that woman.'
- b. xošéba lá-palx-**i** nàše.  
Sunday NEG-work.IMPF-**S.3PL** people  
'On Sunday, people do not work.'
- c. 'ána méθ-**en** 'ašərtá.  
I die.IMPF-**S.1SG** evening  
'I shall die in the evening.'

(Christian Barwar; Khan 2008:115,132,135)

The subject of a transitive, unergative, and unaccusative all pattern alike (marked with S-suffixes), while objects are treated uniquely (marked with L-suffixes).

With the perfective base, however, L-suffixes no longer mark objects, but cross-reference the subject, even in an unaccusative. S-suffixes now function as object markers, and so only appear in transitives.<sup>3</sup>

(5) **PERFECTIVE** *S-suffix = object, L-suffix = subject:*

- a. xawr-áwaθ-i brát-i griš-**a-la**.  
friend-PL-1SG daughter-1SG pull.PERF-**S.3FS-L.3PL**  
'My friends pulled my daughter.'
- b. kalba nwix-**le**.  
dog bark.PERF-**L.3MS**  
'The dog barked.'
- c. brát-i qim-**la**.  
daughter-1SG rise.PERF-**L.3FS**  
'My daughter rose.'

(Christian Barwar; Doron & Khan 2012:231)

We will refer to this pattern as *agreement reversal*. It can be schematized as in (6).

(6)	<i>Verbal base</i>		<i>S-suffix</i>		<i>L-suffix</i>
	Imperfective	-	SubjAgr	-	ObjAgr
	Perfective	-	ObjAgr	-	SubjAgr

This aspect split is quite unusual. It is reminiscent of split ergativity, since it shows up in a place typical of ergative splits, namely between the perfective and imperfective (e.g. Hindi and Chol). However, both sides of the aspect split have a fully nominative-accusative alignment, so that there is no real ergativity anywhere in the system.

### 3. The perfective and the PCC

We will start by developing our account of the perfective, which we take to have the most basic syntax. We argue that, despite appearances, there is only one  $\varphi$ -probe in the perfective, which has

<sup>3</sup> Just like object agreement in the imperfective, this agreement is subject to a definiteness restriction. We will not be too concerned with this here, though there are at least two accounts of this that are fully compatible with our theory of agreement reversal. One option is to say that indefinite objects undergo pseudo-incorporation, in the sense of Massam (2001) and Dayal (2011), so that they are inaccessible for agreement. Another option is that definite objects raise to the edge of a lower phase (e.g. VP), following the treatment of Sakha differential object marking in Baker and Vinokurova (2010). This movement step would make definite objects, but not indefinite objects, visible for agreement. The former approach is adopted for the Senaya facts in (22a–b) in Kalin and van Urk (to appear).

to license both the subject and the object. This probe clitic-doubles the subject, while registering true agreement with the object, creating the appearance of two separate agreement morphemes. The empirical motivation for this proposal comes from the existence of a Strong PCC effect between the subject and the object in the perfective, and our syntax for the perfective mirrors the Béjar and Rezac (2003) theory of this phenomenon.

### 3.1. The Person Case Constraint

The PERSON CASE CONSTRAINT (PCC) refers to the ungrammaticality of certain combinations of person when two arguments occupy the same domain (Bonet 1991). We will be concerned here with the *Strong PCC*, which restricts the lower argument to 3rd person. In Greek ditransitives, for instance, a direct object clitic in the context of an indirect object has to be 3rd person:

(7) **Direct object clitic of Greek ditransitives has to be 3rd person:**

- a. Tha tu to stilune.  
 FUT CL.GEN.3SG CL.ACC.3SG send-3PL  
 ‘They will send it to him.’
- b. \*Tha tu se stilune.  
 FUT CL.GEN.3SG CL.ACC.2SG send-3PL  
 ‘They will send you to him.’ (Greek; based on Anagnostopoulou 2005)

We can state the Strong PCC as follows:

(8) **Strong PCC (Bonet 1991):**

For two arguments in a domain X, the lower argument has to be third person.

In the agreement reversal languages, a Strong PCC effect obtains between the subject and object of the perfective, such that the object has to be 3rd person:<sup>4</sup>

(9) **Barwar object has to be 3rd person in the perfective:**

- a. \*griš-an-le.  
 pull.PERF-S.1FS-L.3MS  
 ‘He pulled me.’
- b. \*griš-at-le.  
 pull.PERF-S.2FS-L.3MS  
 ‘He pulled you.’
- c. griš-í-le.  
 pull.PERF-S.3PL-L.3MS  
 ‘He pulled them.’ (Christian Barwar; Doron & Khan 2012:232)

Most accounts of the PCC assume that PCC effects arise when two arguments compete for the attention of one  $\varphi$ -probe (e.g. Anagnostopoulou 2003; Béjar & Rezac 2003; Nevins 2007; Rezac 2011).<sup>5</sup> As such, we take the existence of a PCC effect to suggest that there is only one  $\varphi$ -probe in the perfective of agreement reversal languages, which has to license both the subject and the object.

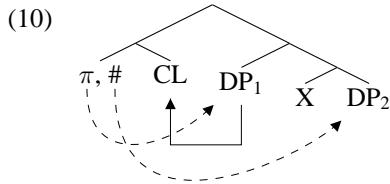
To be precise, we adopt the Béjar and Rezac (2003) account of the Strong PCC. Béjar and Rezac propose that a  $\varphi$ -probe can sometimes agree with multiple arguments because  $\varphi$ -probes consist of separate person ( $\pi$ ) and number (#) probes, which probe independently. These probes can end up targeting different DPs if the one that probes first, which Béjar and Rezac assume is the person probe, triggers a change in the DP it agrees with. For Béjar and Rezac, this change is *clitic-doubling* of the

<sup>4</sup> In order to express a 1st or 2nd person object with the perfective, these languages make use of two strategies. The object can be embedded under a preposition, in which case all persons are acceptable, or the perfective is expressed periphrastically, by putting a perfective prefix on the imperfective base (agreement is just as in the imperfective).

<sup>5</sup> Note that the syntactic signature of the PCC means that a morphological analysis of agreement reversal, as suggested by Baerman (2007) for Hertevin, is not appropriate for Barwar. For detailed argumentation that the PCC is syntactic, see Rezac (2011).

goal DP, which they assume makes arguments invisible for further probing.<sup>6</sup> If the person probe is a clitic-doubler, the highest argument becomes inaccessible to further probing. The number probe will then end up targeting a different DP. In this way, one  $\varphi$ -probe can agree with multiple arguments.

The tree in (10) represents this situation. Person probes first and agrees with DP<sub>1</sub>. As part of this Agree relation, the person probe clitic-doubles DP<sub>1</sub>, so that DP<sub>1</sub> becomes invisible for further probing. Number then probes, ignoring DP<sub>1</sub>, and agrees with DP<sub>2</sub>.



Béjar and Rezac propose that the Strong PCC effect emerges in this environment. Specifically, they argue that the Strong PCC effect arises because 1st and 2nd person DPs are special in that they require person agreement to be licensed. They call this licensing requirement the PLC, stated as follows:

(11) **Person Licensing Condition (PLC; Béjar & Rezac 2003):**

Interpretable 1st/2nd-person features must be licensed by entering into an Agree relation with an appropriate functional category.

The PLC means that, in the situation in (10), only the higher argument can be 1st or 2nd person, since only the higher argument, DP<sub>1</sub>, enters into person agreement. In contrast, the lower argument in (10) DP<sub>2</sub>, only agrees with a number probe and so will violate the PLC if 1st or 2nd person.

The PLC is a licensing requirement that is independent of case. Béjar and Rezac assume that agreement with any  $\varphi$ -probe, whether it is a person or number probe, suffices for case assignment. As such, a 3rd person DP in the lower position in (10) is case-licensed by virtue of agreeing with a number probe. And, since a 3rd person DP is not subject to the PLC, it does not need to agree with a person probe to be licensed. In this way, the lower argument is restricted to 3rd person and the Strong PCC effect is derived.

### 3.2. Agreement in the perfective

To derive the Strong PCC effect in agreement reversal languages, we implement the Béjar and Rezac (2003) account. We will treat the perfective in agreement reversal languages as an environment in which one  $\varphi$ -probe agrees with multiple arguments. In particular, we propose that Christian Barwar and related languages differ from other nominative-accusative languages in that *T carries a  $\varphi$ -probe, but not  $v$* , so that  $v$  is inactive.<sup>7</sup> As a result, there is no head that is dedicated to licensing objects; thus, in transitives, both the subject and the object have to be licensed by T.

To be precise, we propose that the person probe on T in agreement reversal languages is a clitic-doubler, which clitic-doubles the DP it agrees with. The reflex of this relation is an L-suffix, which we take to be a clitic, following Doron and Khan (2012; see also fn. 2). In the perfective, intransitive and transitive subjects are then referenced by L-suffixes, because they are the highest argument and therefore the argument that the person probe on T agrees with and clitic-doubles. The number probe on T subsequently agrees with an object, if one is present. We propose that this agreement is spelled out by

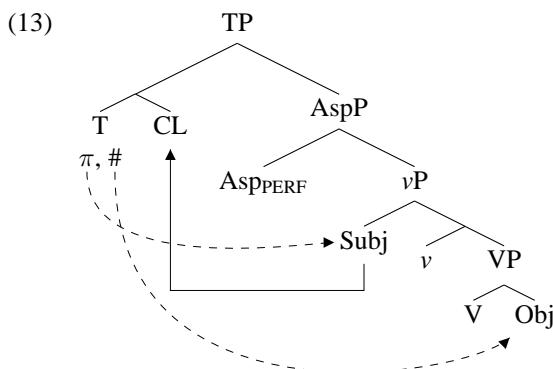
<sup>6</sup> We can see that cliticization makes DPs invisible for probing in languages like Greek and Basque, in which clitic-doubled arguments do not count for intervention. One way of theoretically implementing this observation is proposed by Anagnostopoulou (2003), who says that the tail of a clitic-doubling chain is an A'-trace and the head of the chain is no longer a phrase, but a head.

<sup>7</sup> It has to be T that is active and not  $v$ , because this would not map straightforwardly onto a PCC configuration. Specifically, if the  $\varphi$ -probe were on  $v$ , then we would have to make an additional stipulation about the directionality of probing (upwards then downwards) in order to account for the fact that the PCC affects objects and not subjects. In addition, while the perfective could be accounted for this with this stipulation, it does not allow imperfective Asp to interfere in the desired way in the imperfective, as is needed to derive agreement reversal; see §4.1.

an S-suffix, which marks true agreement. These assumptions implement the Béjar and Rezac account and so derive the profile of agreement in the perfective.

To see exactly how this works, we will run through the derivations of perfective transitives and intransitives. Consider first an example of a perfective transitive (12), in which an L-suffix marks the subject and an S-suffix the object. This has the syntax in (13).

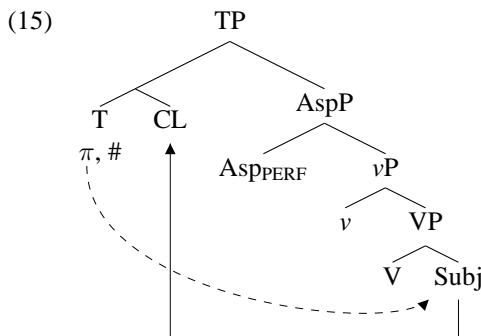
- (12) PERFECTIVE TRANSITIVE *S-suffix = object, L-suffix = subject:*  
 xawf-ǎwaθ-i brat-i griš-a-la.  
 friend-PL-1SG daughter-1SG pull.PERF-S.3FS-L.3PL  
 ‘My friends pulled my daughter.’ (Christian Barwar; Doron & Khan 2012:231)



In this derivation, person on T probes first, licensing the subject, and triggering clitic doubling. This clitic doubling spells out as an L-suffix, since L-suffixes are the clitic series. Number on T now probes. It ignores the subject because the subject is clitic-doubled (see fn. 6), and agrees with the object, licensing it as well. Number agreement with the object is spelled out as an S-suffix. This derives the PCC effect, since the perfective transitive maps exactly onto the Béjar and Rezac (2003) configuration in (10). The object of the perfective only agrees for number, and so violates the PLC if 1st or 2nd person.

This account extends to perfective intransitives, like (14), which have the structure in (15).

- (14) PERFECTIVE INTRANSITIVE *L-suffix = subject:*  
 brat-i qim-la.  
 daughter-1SG rise.PERF-L.3FS  
 ‘My daughter rose.’ (Christian Barwar; Doron & Khan 2012:231)



In this structure, person on T probes the subject and triggers clitic doubling (because  $\pi$  indiscriminately clitic-doubles the argument it agrees with). This clitic spells out as an L-suffix. Number on T now probes. Since the subject has been clitic-doubled, it is no longer visible for probing. As such, number finds nothing and spells out as the default S-suffix (3sg masculine), which is null.

This concludes our account of agreement in the perfective. Intransitive and transitive subjects are marked the same way because both are clitic-doubled by the person probe on T. Transitive objects are different, because they are the target of real agreement, namely with the number probe on T.

## 4. The syntax of agreement reversal

In this section, we develop our account for the imperfective. We propose that imperfective Asp introduces an additional  $\varphi$ -probe, which causes an apparent reversal in agreement. This probe, and not T, will target the subject, because Asp is merged first. T can then ignore the subject and license the object instead. This explains why there is no PCC effect in the imperfective and why imperfective objects are marked in the same way as perfective subjects — both are probed by T.

### 4.1. An additional $\varphi$ -probe in the imperfective

As noted, the imperfective differs from the perfective in that there is no PCC effect: the object is not limited to 3rd person. Instead, we get full agreement for person and number with both the subject and the object, as (16) illustrates.

(16) **No PCC effect in the imperfective:**

'u-bʰ-amr-ən-nux.

CONJ-FUT-say.IMPF-S.1SG-L.2MS

'And I shall say to you.'

(Christian Barwar; Khan 2008:175)

As such, we assume that there are two  $\varphi$ -probes in the imperfective, so that the subject and the object can be licensed separately for person. In particular, we propose that *imperfective Asp introduces an additional  $\varphi$ -probe*. This  $\varphi$ -probe is not a clitic-doubler, so that it only registers agreement with (but does not clitic-double) the subject.

In addition, we assume that S-suffixes spell out real agreement regardless of what head initiates it. As a result, both agreement that is triggered by imperfective Asp and agreement triggered by number on T is spelled out as an S-suffix. Imperfective subjects and perfective objects are then marked with the same suffix not because they agree with the same head, but because both are the target of real agreement.

To see how this proposal derives agreement reversal, we will examine how transitives and intransitives are derived. Consider first imperfective intransitives, like the unaccusative in (17), in which the subject is referenced by an S-suffix. These have the structure in (18).<sup>8</sup>

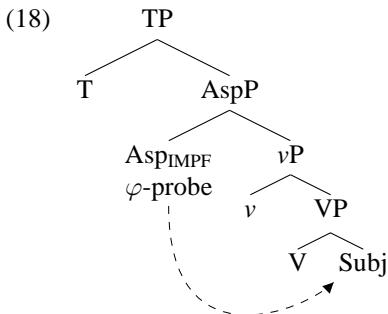
(17) IMPERFECTIVE INTRANSITIVE *S-suffix = subject:*

'ána mɛθ-en 'aʃəɾta.

I die.IMPF-S.1SG evening

'I shall die in the evening.'

(Christian Barwar; Khan 2008:132)

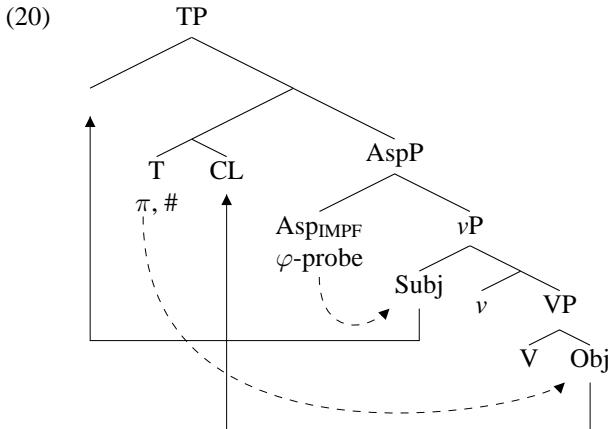


In this structure, the  $\varphi$ -probe on imperfective Asp is the  $\varphi$ -probe that is merged first and so it agrees with the subject. Because S-suffixes spell out agreement (regardless of where agreement originated), this spells out as an S-suffix. Person and number on T then probe, but find no active goal, and so spell out as the default S-suffix, which is null.

<sup>8</sup> Although we represent Asp as an undifferentiated probe here, it is also assumed to consist of a separate person and number probe. Since neither is a clitic-doubler, these probes will just always agree with the same argument.

Recall now that, in imperfective transitives, full object agreement is marked with an L-suffix, the same morpheme that marks subject agreement in the perfective, as in the example in (19). We assume the underlying structure in (20).

- (19) IMPERFECTIVE TRANSITIVE *S-suffix = subject, L-suffix = object:*  
 'u-bʃ-amr-ən-nux.  
 CONJ-FUT-say.IMPF-S.1SG-L.2MS  
 'And I shall say to you.' (Christian Barwar; Khan 2008:175)



In this tree, the  $\varphi$ -probe on imperfective Asp agrees with the subject, as above, and this agreement spells out as an S-suffix. We propose now that Barwar makes available a movement step to spec-TP for the subject, so that it gets out of the way of the agreement probe on T. This allows the object to be agreed with without the subject intervening.<sup>9</sup> The person probe on T now clitic-doubles the object, creating an L-suffix. The number probe does not find an argument to agree with, because the available arguments have either been clitic-doubled or moved out of the way of the probe on T, and so it spells out as the default S-suffix, which is null.

This account derives the appearance of agreement reversal in the Neo-Aramaic languages we have examined. Agreement reversal boils down to the interaction of two factors. First, the  $\varphi$ -probe on imperfective Asp causes the imperfective object to be treated like the perfective subject (both are probed by  $\pi$  on T). Second, because true agreement spells out uniformly with S-suffixes, perfective objects (true agreement with T) are marked just like imperfective subjects (true agreement with Asp).

#### 4.2. Evidence for this account

This section briefly discusses some evidence for our account. First of all, the current proposal derives some puzzling facts about a common strategy for expressing multiple objects in ditransitives in these languages. Specifically, it makes an interesting prediction about ditransitives that we show is correct. As the tree in (20) illustrates, the number probe on T remains free in our analysis of imperfective transitives, unlike in perfective transitives (15), in which all probes agree. If an additional argument is available, we then predict that it can be agreed with in the imperfective, but not in the perfective. Further, we should then see the PCC resurface and affect the lowest argument.

<sup>9</sup> This is not a countercyclic derivation. Instead, the claim here is basically that there is an EPP feature on T which is unordered with regard to T's other features, so that the ordering of probing and movement is free. We assume then that there is really movement of the subject to spec-TP in all of the derivations discussed. Crucially, however, ordering the movement step to spec-TP before probing results in ungrammaticality in the perfective, since it prevents the subject from being licensed. As such, movement to spec-TP has to be ordered *after* probing in these derivations and so does not affect the conditions on agreement. For more on the idea that arguments can move out of the way of a  $\varphi$ -probe in this fashion, see Holmberg and Hróarsdóttir (2003), Anand and Nevins (2006), Legate (2008), Sigurðsson and Holmberg (2008), Preminger (2011), and Halpert (2012).



T agree with the same argument. In this way, the approach developed here allows for a unified account of two unusual aspect splits, agreement reversal and Senaya's system of partial agreement reversal. This approach to Senaya agreement is further explored in Kalin and van Urk (to appear).

## 5. Accounting for aspect splits

Our syntax for agreement reversal languages derives agreement reversal from the idea that the perfective has one  $\varphi$ -probe and the imperfective has two. The question that arises now is why there should be an additional  $\varphi$ -probe in the imperfective. In this section, we suggest that the answer lies in work on aspect-based split ergativity which argues that such splits arise because nonperfective aspects introduce additional prepositional structure (Laka 2006; Coon 2010; Coon & Preminger 2011).

Recent work on split ergativity explores the hypothesis that nonperfective aspects are associated with additional structure (Laka 2006; Coon 2010; Coon & Preminger 2011). This work is motivated by Dixon's (1994) observation that there is a consistent directionality to aspect splits. Dixon points out that aspect-based ergative splits are always ergative on the perfective side (23), as schematized in (24).

(23) **Dixon's observation (1994:99):**

"...If a split is conditioned by...aspect, the ergative marking is *always* found...in perfective aspect."

(24) **Universal directionality of aspect splits:**

(ERG/ABS) perfective > > imperfective > > progressive (NOM/ACC)

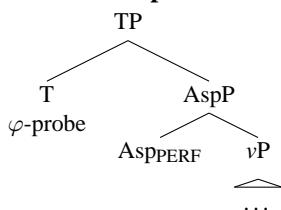
Coon (2010) proposes that Dixon's observation derives from the idea, developed in work on tense and aspect by Demirdache and Uribe-Etxebarria (2000), that nonperfective aspects involve a prepositional predicate absent in the perfective. Coon points out that such an additional predicate may also introduce a new case/agreement domain, shifting a language out of its canonical case/agreement pattern. Split ergative languages are then really ergative throughout, but the presence of additional case/agreement domains in some environments disrupts this pattern.

This approach to split ergativity has been explored in two ways. For Basque and Chol, Laka (2006) and Coon (2010), respectively, propose that this extra prepositional predicate is expressed as an independent verb, so that nonperfective aspects are biclausal. Coon and Preminger (2011) suggest that the prepositional predicate introduced by nonperfective aspects may introduce an additional phase boundary (Coon & Preminger 2011), disrupting a Marantzian assignment of ergative case.

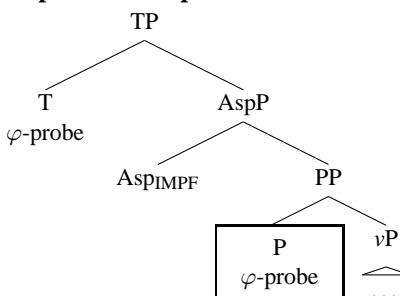
These all involve natural properties of prepositions. Since prepositions are predicates, they can be expressed as a main verb. In addition, prepositions are phases, so that we might expect this property to be preserved as well. Another property of prepositions is that they can introduce  $\varphi$ -probes and assign case. If we take the above view of split ergativity literally, we might imagine that these properties too could effect an aspect split. This is what we propose lies behind the additional  $\varphi$ -probe in the imperfective in Neo-Aramaic. What distinguishes agreement reversal languages is that, in order to express nonperfective aspect, they make use of *a prepositional predicate that retains a  $\varphi$ -probe*. As a result, there is an additional  $\varphi$ -probe in the imperfective.

The structure of perfective and imperfective aspect in agreement reversal languages is then (25a–b), where Asp<sub>IMPF</sub> introduces a P which has retained its  $\varphi$ -probe.

(25) a. **Perfective aspect:**



b. **Imperfective aspect:**



The consequence of this structure in the syntax is agreement reversal. In this way, agreement reversal and split ergativity are driven by the same factor: an additional prepositional predicate in the imperfective. What type of aspect split emerges in a particular case/agreement system is then determined by the syntactic properties of this prepositional predicate.

## 6. Concluding remarks

This paper has presented a theory of aspect-based agreement reversal in Neo-Aramaic languages. We have argued that agreement reversal is driven by the fact that imperfective aspect introduces an additional  $\varphi$ -probe. In this way, our account provides evidence for the hypothesis that nonperfective aspects are more complex (Demirdache & Uribe-Etxebarria 2000) and that it is this complexity that drives aspect-based splits in case and agreement across languages (Laka 2006; Coon 2010; Coon & Preminger 2011).

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