

The (in)compatibility of Anaphora and Agreement

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ABSTRACT

In this paper, I argue that Rizzi's anaphor agreement effect is in fact not universal as there are languages that show violation to this effect. To the question of why some languages follow anaphor agreement effect and why certain other languages violate it, I demonstrate that this is an independent consequence of whether in a given language the functional head that carries the agreement probe merges first in the structure or the subject DP that that serves as antecedent to the anaphor merges first in the structure. In the former case, the order is Agree \succ Binding, where the anaphor do not have any φ features to control the agreement resulting in anaphor agreement effect and in the later case, the order is Binding \succ Agree, where the anaphor will have acquired the required φ features to control the agreement resulting in violation of anaphor agreement effect.

1 Anaphor Agreement Effect

Rizzi (1990) proposed a generalization called anaphor agreement effect (henceforth, AAE). According to this generalization, anaphors do not occur in a position construed with agreement. Rizzi further claims that this generalization holds 'systematically across natural languages' (Rizzi 1990: 28). The main argument for AAE comes from the dative subject construction in Italian and Icelandic. In this construction (1a), it is not the dative subject but the nominative object that controls the agreement. However if the nominative object is reflexive (1b), then the sentence becomes ungrammatical.

- (1) a. Henni leidust þeir
She.Dat bored.3Pl they.Nom
'She was bored with them.'
b. *Konunum_i leidust sig_i
Women.Dat bored.3Pl Refl.Nom
'Women were bored with themselves.'

(Icelandic; Taraldsen 1995: 307 (1))

The same facts can be observed in Italian as well, where the reflexive from an agreement controlling nominative object position is ruled out (2a) and the same construction is rescued by having the reflexive in the genitive case, which does not control the agreement (2b).

- (2) a. *A lorro_i interest-ano solo se-stessi_i
To them.Dat matters-3Pl only Refl.Nom
'They_i only matter to themselves._i'
b. A lorro_i import-a solo di se-stessi_i
To them.dat matters-3Sg only of Refl.gen
'They_i only matter to themselves._i'

(Italian; Rizzi 1990: 33 (15))

Rizzi reasons out that ungrammaticality of (1b) and (2a) can be explained neither by the binding theory nor by the empty category principle. The principle A of the binding theory requires that anaphors be locally bound by the antecedent. In these constructions, the dative subject serves as a local antecedent for the anaphor, which satisfies the principle A. Similarly, the empty category

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Following Storoshenko (2016), I take the SM and OM as the agreement markers with the subject and the object respectively. If this indeed the case, then when the reflexive pronoun occurs as the object, an invariable *-zvi* morpheme occurs in the object agreement slot, which does not φ covary with the reflexive.

(4) Shona reflexive marking:

	Sm	Pres	Om	wash	
1Sg	ndì-	nó-	zví-	gèz-á	‘I wash myself.’
2Sg	ù-	nó-	zví-	gèz-á	‘You wash yourself.’
3Sg	à-	nó-	zví-	gèz-á	‘She washes herself.’

(Dechaine & Wiltschko 2012: 17 (35))

At this point, it is unclear what exactly this *-zvi* morpheme is as it can be analyzed either as an incorporated reflexive pronoun or it could be analyzed as an object agreement marker. However Storoshenko (2016) points out that *-zvi* marker is in fact a class 8 marker that typically occurs in the context of default agreement. As shown in (5a), when the object is a conjunct DP made nouns belonging to the different noun classes, the *-zvi* morpheme occurs in the object agreement slot. Similarly, in (5b), *-zva*³ morpheme occurs in the subject agreement slot, when the subject is not a proper DP but rather a clause.

- (5) a. Nda-Ø-**zvi**-tor-a [sadza no-mu-riwo]
 Sm.1-Pst-Om.8-take-Fv Sadza.5 and-3-relish
 ‘I took them (sadza and relish).’
- b. [Ku-tsav-ir-a mu-mba ma-zuva e-se] **zva**-ka-kosh-a
 [Inf-sweep-Appl-Fv house day every] Sm.8-Pst-important-Fv
 ‘Sweeping the house every day was important.’

(Storoshenko 2016: 170 (22))

If *-zvi* is indeed a default agreement marker, then its occurrences in reflexive context in (4) can also be explained straightforwardly if we assume along with Kratzer (2009) that anaphors are born without φ features and as a result they cannot control the φ or class co-varying agreement and therefore results in default agreement. So the default agreement that obtains with the anaphor confirms Rizzi’s AAE.

2.2 Kutchi Gujarati

Kutchi Gujarati belongs to the western Indo-Aryan language, spoken in the Rann of Kutch in the state of Gujarat, India. It exhibits a split agreement pattern: the agreement is with the subject in the imperative and with the object in the perfective, well described by Patel-Grosz (2014), and Grosz and Patel-Grosz (2014). In this paper, I concentrate only on the perfective aspect as it gives ideal test case scenario to check if the reflexive from the object position can control the agreement or not. First to illustrate its basic agreement pattern in perfective aspect, as shown in (6), the DOM marked object controls the agreement on the verb for number and gender.

- (6) a. John Mary-ne jo-y-i
 John Mary-Dom see-Perf-Fsg
 ‘John saw Mary.’

(Patel-Grosz 2014: 2 (2))

By replacing the DOM marked object with a reflexive pronoun instead of a proper noun, the agreement facts does not change as the normal expected agreement still obtains as shown below.

³*-zva* is an allomorph of *-zvi* that shows up in certain subject agreement contexts.

- (7) Mary potha-ne jo-y-i
 Mary Refl-Dom see-Perf-Fsg
 ‘Mary saw herself.’ (Patel-Grosz 2014: 4 (10))

At the face of it, the agreement facts in (7) looks like its the anaphors that control the φ co-varying agreement. However, Patel-Grosz argues that it is not the reflexive that controls the agreement but the subject DP. She argues that in Kutchi Gujarati, whenever the reflexive occurs in the agreement controlling position, the agreement shifts to the subject DP. Her evidence for the agreement shift comes from the following facts in Kutchi Gujarati, where the reflexive object with the dative subject controls the default neuter agreement rather than φ co-varying agreement. If it is the reflexive object that controls the agreement, then change in the case of the subject should not matter to the agreement, however, since the change in the case of the subject to dative case affects the expected agreement pattern, Patel-Grosz establishes that agreement obtains with the subject rather than with the object.

- (8) Raj-ne potha-ne jo-vu par-y-u
 Raj-Dat Refl-Dom see-N had-Perf-N
 ‘Raj had to see himself.’ (Patel-Grosz 2014: 5 (12))

Given this evidence, I take Patel-Grosz’s observation to be true in which the agreement target shifts from the object to the subject, whenever the object is reflexive. This fact further attests the empirical validity of the AAE which predicts that anaphor can never control the agreement on the verb.

3 AAE violating patterns

In the last section, we have seen the empirical patterns from Shona and Kutchi Gujarati, where AAE is followed and in this section, I will illustrate the empirical patterns from standard Gujarati, Archi and Ingush, where AAE is violated.

3.1 Standard Gujarati

Standard Gujarati is a closely related language to Kutchi Gujarati. It also exhibits a split agreement pattern: the agreement is with the subject in the imperfective and with the object in the perfective. As shown in perfective aspect in (9), the DOM marked object controls the φ co-varying agreement on the verb. An important difference between Kutchi Gujarati and standard Gujarati is that the subject DP in perfective aspect is marked with the overt ergative case in standard Gujarati but unmarked in Kutchi Gujarati.

- (9) Raaj-e sudhaa-ne uṭhaad-i
 Raj(M)-Erg Sudha(F)-Dom awakened-Fsg
 ‘Raj awakened Sudha.’ (Mistry 2000: 344 (18))

Again, when the object is reflexive, it does not affect the agreement pattern as normal agreement obtains.

- (10) a. raaje potaa-ne sandov-yo
 Raj(M)-Erg Refl-Dom involved-Msg
 ‘Raj involved self.’
 b. Sudhaae potaa-ne sando-vi
 Sudha(F)-Erg Refl-dom involved-Fsg
 ‘Sudha involved self.’ (Mistry 2000: 344 (19))

However, the question with regard to (10) is whether it is the reflexive that controls the agreement or is it the case of agreement switch like Kutchi Gujarati. It can be easily established that it is the reflexive object that controls the agreement rather than subject. In (11), when there is a clausal object and ergative subject, there is a default agreement. This shows that ergative subject can never control the agreement. If ergative argument can never control the agreement, then there cannot be any agreement switch in (10).

- (11) Raaje_i jaṇaav-yū [ke Sita jarur aavše]
 Raj-Erg informed-N that Sita definitely come.Fut.3
 ‘Raj informed that Sita will definitely come.’ (Kinjal Joshi p.c.)

Further evidence for the reflexive object controlling the agreement can be seen by comparing the dative subject construction in standard Gujarati (12a) with that of Kutchi Gujarati (12b). In (12a), the φ co-varying agreement suggests that it is the reflexive controlling the agreement rather than the subject because if the subject controls the agreement, then it would result in default neuter agreement with the dative subject as in the case of Kutchi Gujarati in (12b).

- (12) a. Sita-ne pota-ne apnav-i che
 Sita(F)-Dat Refl-dom adopt-Fsg be
 ‘Sita wants to adopt herself.’ (Gujarati; Kinjal Joshi p.c.)
 b. Raj-ne potha-ne jo-vu par-y-u
 Raj(M)-Dat Refl-Dom see-N had-Perf-N
 ‘Raj had to see himself.’ (Kutchi Gujarati; Patel-Grosz 2014: 5 (12))

The empirical facts prove that it is the reflexive that controls the agreement in Gujarati and thereby, violating AAE.

3.2 Ingush and Archi

Ingush, a Nakh-Daghestanian language, also presents a clear case of AAE violation. It is also an ergative-absolutive language, where only the absolutive argument can control the agreement. In (13), the letters B and J in the gloss of the verbal morphology corresponds the morphological gender of argument in the absolutive case.

- (13) a. aaz jett aara-b.oala-b.yr
 1Sg.Erg cow(B).Abs out-B.go-B.cs.wp
 ‘I led the cow out.’
 b. aaz Mariem aara-j.oala-j.yr
 1sg.Erg Mariem(J).Abs out-J.go-J.sc.wp
 ‘I led the Mariem out.’ (Ingush; Nichols 2011: 432 (5-7))

Given this agreement pattern, it can be shown that reflexive occurs as an absolutive argument and then controls the agreement.

- (14) Muusaaz learrha shie xoada-veav
 Muusa.Erg on.purpose Refl.Abs cut-V.caus.nw.V
 ‘Musa cut himself on purpose.’ (Ingush; Nichols 2011: 641 (27))

The source of verbal agreement in (14) can be shown to be from the reflexive object rather than from the ergative subject by changing the case of the subject DP into dative case as in (15). The change in the case of the subject doesn’t affect the agreement pattern because the agreement is from the reflexive object.

- (15) Suona sie kizjgaa-chy bwarjga+j-eira
 1Sg.Dat Refl.Abs mirror.Gen-in eye+J.see.wp
 ‘I(female speaker) saw myself in the mirror.’

(Ingush; Nichols 2011: 641 (22))

Again, there is no agreement switch in (15) by comparing it with (16), where it is shown that the argument in dative case cannot control the agreement. If dative argument can never control the argument, then it must be the case that it is the reflexive in absolutive case that controls the agreement (14) and (15). All these facts in Ingush point to the fact that it is a clear case of AAE violation like standard Gujarati.

- (16) Suona [yz dika sag voliga] xou
 1sg.Dat 3Sg good person V.be.Sbj know.Pres
 ‘I know he is a good person.’

(Ingush; Nichols 2011: 547 (40))

Archi, an another Nakh-Daghestanian language, also presents an AAE violation. It is also an ergative-absolutive language, where only the absolutive argument controls the agreement⁴.

- (17) zari nošš darc’-li-r-ši e-b-t’ni
 1Sg.Erg horse(III)Sg.Abs post-Sg.Obl-Cont-All III.Sg-tie.Perf
 ‘I tied the horse to the post.’

(Archi; Chumakina, Bond and Corbett 2016: 60 (29))

Similar to Ingush, reflexives occur as an absolutive argument in Archi and then controls the agreement.

- (18) a. Zalik-li-s inža-w w-ak:u daχon-n-aš
 Zalik(I)-Sg.Obl-Dat Refl.Abs-I.Sg I.Sg-see.Perf mirror(IV)-Sg.Obl-In-El
 ‘Zalik saw himself in the mirror.’

(Archi; Bond and Chumakina 2016: 69 (52))

- b. laha-s inž-w w-ak:u
 child(I).Sg.Obl-Dat Refl.Sg.Abs-I.Sg I.Sg-see.Perf
 ‘A boy saw himself.’

(Archi; Sadler 2016: 158 (19))

To conclude this section, we have seen empirical patterns in Standard Gujarati, Ingush and Archi presenting a clear case of AAE violation, which is to be contrasted with the empirical patterns in Shona and Kutchi Gujarati which presents a case where AAE is strictly followed. These two contrasting patterns raise the interesting question of why AAE behaves the way it is in these languages and how to account for them. I will present an analysis in the following section that accounts for this question.

4 Analysis

In this section, I will demonstrate that AAE or the violation of AAE arises as an independent consequence of whether in a given language the functional head that carries the agreement probe merges first in the structure or the subject DP that that serves as antecedent to the anaphor merges first in the structure. When the agreement probe that seeks to agree with the anaphor merges in the structure before the subject DP, the agreement with the anaphor precedes before the binding of the anaphor as schematized in (19). In this order of derivation, the anaphor will not have the required φ features to control the agreement on the verb and as a result AAE holds.

⁴The roman letter III in the verbal morphology refers to an agreement marker.

(19) Agree \succ Binding \rightarrow AAE holds

On the other hand, when the subject DP that serves as antecedent to the anaphor merges first in the structure before the agreement probe, the binding of an anaphor will precede the agreement with the anaphor as schematized in (20). In this order of derivation, the subject DP will have acquired the required φ features from binding and can then value the probe from the functional head and eventually resulting in violation of AAE.

(20) Binding \succ Agree \rightarrow AAE violation

Given this proposal, first, I will specify the set of assumptions that are needed for the analysis before actually deriving the AAE facts in the languages.

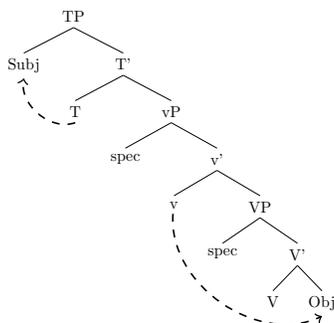
4.1 Assumptions

I assume that anaphors are born without any φ features (Kratzer 2009) and they acquire their φ features as a result of undergoing agree with their antecedent in syntax. Therefore I take binding to be nothing but an agree operation that operates between the anaphor and its antecedent (Reuland 2001, 2011). Similarly, for the actual verbal agreement, I follow the standard approach of Chomsky's (2000) agree that operates between the uninterpretable and the unvalued features of a probe and the interpretable and the valued features of a goal and as result of agree, the probe's features get checked and valued. For the sake of concreteness, I will continue to refer the agree relation between anaphor and its antecedent as 'binding' and the agree relation between the functional head and its DP as 'agree'. In addition, I assume the direction of agree can be both upward (Zeijlstra 2012) and downward. I also assume the earliness principle (Pesetsky 1989), which demands that an operation apply as soon as its context are met.

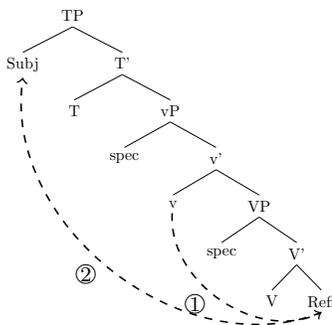
4.2 Default agreement in Shona

Given the background assumptions that I have highlighted above, first, I'll derive the AAE facts in Shona. As we have already seen in (3), Shona has both subject and object agreement. I take this agreement configuration in syntax as T agreeing with the subject and v agreeing the object as shown in (21).

(21) Shona agreement:



(22) Agree \succ Binding :



An important thing to note from the structure in (21) is that by the time v agrees with the object, the subject would not have merged in the structure. So in the structure with reflexive (22), there is no way that binding could have happened before agree because the subject merges later in the structure. As a result, when v probes down to agree with the reflexive object, the reflexive would not have the required φ features to value the uninterpretable feature of v. As a result, default agreement obtains with the reflexive.

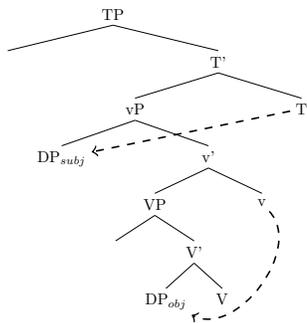
4.3 Agreement switch in Kutchi Gujarati

We have already seen that Kutchi Gujarati employs the agreement switch strategy to get around the violation of AAE. It turns out that Kutchi Gujarati is also a language with two agreement probes and this is seen overtly in analytic tense in (23), where the overt tense auxiliary agrees with the subject and the perfective verb agrees with the object.

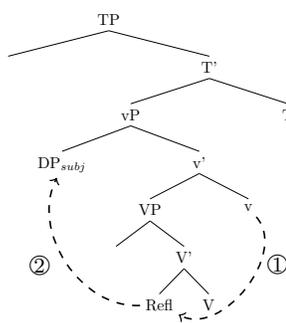
- (23) Hu chokra-ne jo-y-a ha-is
 I boys-Dom see-Perf-Pl be--Fut.1Sg
 ‘I will have seen the boys.’ (Grosz & Patel-Grosz 2014:11 (9b))

This would again translate in syntax as T agreeing with the subject and v agreeing with the object as in (24) and in the reflexive construction in (25), it is first v that agrees with the object and only then subject DP merges in the structure. So the order of derivation is Agree \succ Binding.

- (24) Kutchi Gujarati agreement:



- (25) Agree \succ Binding:



Further to derive agreement switch, here, I follow Béjar and Rezac’s (2009) cyclic architecture of agreement. In the first cycle, v agrees with the internal argument and if there are features of v that have not undergone agree with the internal argument, then the domain of agree expands to second cycle, where the features that have not undergone agree in earlier cycle, would now undergo agree with the external argument. This cyclic expansion of agree allows the choice of agreement controller to switch from the object to the subject⁵.

4.4 AAE violation in standard Gujarati

Compared to the nested pattern of agreement in Kutchi Gujarati, there is no nested pattern of agreement in standard Gujarati because when the verb agrees with the object (26), the auxiliary also agrees with the object rather than with the subject.

- (26) mene khasi av.t-i ha-ti
 I-Erg cough(F) come.Prog.-Fsg was.Prog.Fsg
 ‘I have had a cough.’ (Gujarati; Suthar 2005 :58 (279))

This pattern is very similar to object agreement in Hindi as reported in Bhatt (2005).

- (27) Rahul-ne kitaab parh-ii th-ii
 Rahul-Erg book.F read-Perf.Fsg be-Pst-Fsg
 ‘Rahul had read the book.’ (Hindi; Bhatt 2005 :759 (2b))

⁵I would like to refer the readers to Patel-Grosz (2014) and Murugesan & Raynaud (to appear) for different approaches regarding the exact implementation of agreement switch.

agreement at the first instance of failed agree with the subject. I have shown in this paper that all these three condition holds in standard Gujarati, Archi and Ingush leading to AAE violation.

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