

On Agree without agreement as a source of reflexive voice constructions

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Abstract: Switch-reference has recently been argued to be the result of clausal functional heads entering into Agree with two nearby noun phrases, creating pointers to those noun phrases but not actually copying their morphosyntactic features. Instead, the semantic component interprets the pointers as referential dependency holding between pointed-to noun phrases. This article applies this analysis to reflexive voice constructions in which a feature-invariant affix appears on the verb to indicate that the (highest, direct) object is referentially dependent on the (thematic) subject of the same clause. First it surveys the properties that such constructions should have if reflexive voice is maximally like switch-reference. Then it argues that the Bantu language Lubukusu has just such a construction, the verbal affix *i* partnering with the overt anaphor *omweene* to create reflexive clauses. Dravidian reflexive voices are presented as another possible case. Finally, it turns to reflexive and reciprocal voice constructions in Shipibo (Panoan), which seem to have a detransitivizing effect. However, no major detransitivizing account fits all the facts. Rather, reflexive voice in Shipibo is like Lubukusu, except that the anaphor is phonologically null and deficient in phi-features, failing to trigger ergative case on the subject for that reason. True detransitivization may happen in some languages with reflexive voice, but not in all, and it will take considerable care to sort out which are which.

Keywords: reflexive voice, Agree, reciprocal voice, Lubukusu, Shipibo, switch-reference

1 Introduction

Three topics that are historically intertwined in various ways are reflexivity/anaphora, agreement, and switch-reference (SR). Most languages have special grammatical resources for expressing reflexive or reciprocal events in which a single entity or group plays more than one role. In addition, a significant minority of languages have so-called *same subject* (SS) marking constructions, in which a distinctive affix is used on an embedded verb to indicate that the subject of the embedded clause is coreferential with the subject of the matrix clause. The affix *ax* in (1a) from the Panoan language Shipibo (spoken in Peru) is one such affix; it contrasts with the different subject (DS) affix *tian*, used in (1b) where the two subjects are disjoint in reference (Valenzuela 2003; Baker 2014; Baker and Camargo Souza 2020). This opposition forms the core of an SR system.

- (1) a. José=ra [<pro> Rosa oin-**ax**] xobo-n ka-ke.
 José=EV he Rosa see-SS.ABS house-LOC go-PFV
 ‘He_i seeing Rosa_j, José_i went home.’
- b. [José-kan Rosa oin-ke-**tian**]=ra, (ja) xobo-n ka-ke.
 José-ERG Rosa see-PFV-DS=EV 3SG home-LOC go-PFV

‘When José_i saw Rosa_j, he/she_k (someone else) went home.’

It is not surprising that the less widespread and less familiar SR constructions have been analyzed in terms of more familiar reflexive constructions. For example, Finer (1984; 1985) did this when he analyzed SS markers as anaphoric heads and DS markers as pronominal heads within the Binding theory of the time. However, Baker and Camargo Souza (2020) (B&CS) reason in the opposite direction. First we worked out an analysis of SR systems as the result of *Agree without agreement* (A-A). Then we extended our analysis to a subset of *reflexive voice* (RV) constructions, like the Lubukusu one in (2b) and the Shipibo one in (3b).

- (2) a. Yohana a-a-bon-a Maria. (Lubukusu)
John CL1-PST-see-FV Mary
‘John saw Mary.’ (* with *a-a-i-bon-a*)
- b. Yohana a-a-i-bon-a omw-eene. (Lubukusu, AnQ: 2)
John CL1-PST-REFL-see-FV CL1-own
‘John saw himself.’ (* with *a-a-bon-a*)
- (3) a. Mi-n=ra shino chekeren-ke. (Shipibo, PV: 781)
2SG-ERG=EV capuchin.monkey.ABS tickle-PFV
‘You tickled the monkey.’
- b. Mi-a=ra chekere-mee[t]-ke.
2SG-ABS=EV tickle-REFL-PFV
‘You tickled yourself.’

As in (1), a distinctive affix—*i* in Lubukusu, (*mee*)*t* in Shipibo—is used on the verb when two argument roles in the sentence are understood as coreferential, and not when they are not. (2) is especially like (1) in that the verbal affix does not replace any argument NP; a direct object *omweene* is still present, although its interpretation is constrained by the presence of *i* on the verb. Therefore alternative analyses of *i* as a kind of detransitivizing derivational affix creating either an unergative verb (Reinhart & Siloni 2005) or a passive/unaccusative-like construction (Marantz 1984; Bruening 2006) are not available. (3) is more ambiguous. On the one hand, it is similar enough to (2) to invite a similar analysis; on the other hand, there is no overt object in (3b), so a detransitivization analysis is more plausible for it.

Although they raise the theoretical possibility of an SR-like analysis of RV constructions, B&CS did not get very far on the analysis of RV in its own right. We showed that SR mechanisms *could* give an analysis of RV, but not that it is the *right* analysis of RV for particular cases. First, there are some unresolved empirical issues that we took up in cursory fashion or not at all. Second, there are other theories of RV that we made no serious attempt to rule out. Third, there are some significant differences in the behavior of RV constructions across languages to sort out—including the presence of an overt anaphoric object in (2b) but not (3b). The purpose of this article, then, is to advance the A-A analysis of RV constructions by taking a deeper look at Lubukusu and Shipibo, along with a brief glance at Dravidian languages.

The discussion unfolds as follows. In section 2, I briefly review the relevant aspects of B&CS’s A-A analysis of SR, showing how a possible analysis of RV emerges from it. In section

3, I outline in more detail the properties that an A-A-type RV construction is expected to have. In section 4, I argue that RV constructions in Lubukusu have just those properties, providing a paradigm case of an A-A-type RV construction. I also present RV in Dravidian as another possible case in point. Section 5 then takes up the more ambiguous case of reflexive and reciprocal voice in Shipibo, arguing that the A-A analysis is also a better fit for this language than detransitivizing analyses, despite initial appearances. Section 6 concludes.

2 Key concepts from the study of switch-reference

I begin with a brief review of the essential elements of B&CS's theory of SR in Shipibo and Yawanawa.

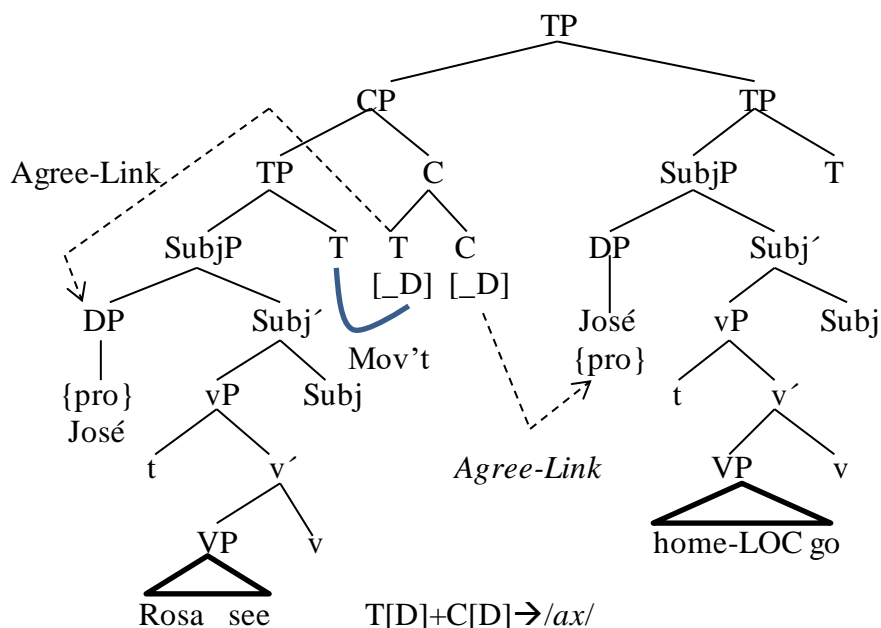
It so happens that these languages have a third construction in their SR paradigm. In addition to the SS construction in (1a) and the DS construction in (1b), they have the object=subject (OS) construction in (4) (Valenzuela 2003). Here the affix *a* on the embedded verb indicates that the object of the embedded clause is coreferential with the subject of the matrix clause.

- (4) [José-kan Rosa oin-**a**]=ra, <pro> xobo-n ka-ke.
 José-ERG Rosa see-OS=EV she house-LOC go-PFV
 'When José_i saw Rosa_j, she_j went home.'

A major goal of B&CS was to develop a theory of SR that allows (4) as well as the crosslinguistically more widespread SS construction in (1a).

B&CS's leading idea was that SR phenomena are the result of somewhat noncanonical instances of the basic syntactic operation of Agree, in the tradition of Chomsky (2000; 2001) (see also Clem (2020) and Arregi & Hanink (2021) for similar analyses). This is a natural hypothesis inasmuch as the SS and OS morphemes look like realizations of functional heads from the clausal spine and Agree is the obvious way that a functional head can establish a relationship with nearby DPs within current syntactic theory. More specifically, we proposed that SS is the result of T in the embedded clause entering into downward Agree with the embedded subject and then fusing via head movement with C, which enters into upward Agree with the matrix subject. The syntactic structure of (1a) is roughly as in (5), where Agree creates pointers from the two probing heads to the two goal DPs. (B&CS assume that the adjunct CP is originally adjoined to vP and its C probes upward from there to Agree with the matrix subject; CP then often extraposes leftward or rightward.)

(5)



The pointers here are not mere graphic conveniences, but a fundamental part of the inner workings of Agree. Following Arregi & Nevins (2012), B&CS factor Agree into two distinct components, as in (6): Agree-Link, which creates a pointer from a probing functional head to a goal DP, and Agree-Copy, which copies the features from the pointed-to DP onto the functional head, deleting the pointer.¹

- (6)
- Agree-Link: In the syntax, P has a probe feature $[_D]$ that triggers Agree with G (possibly more than one). The result is a pointer from P to G .
 - Agree-Copy: If there is a pointer from P to G , copy the values of the phi-features of G onto P and delete the pointer. (May apply early, late, or not at all.)

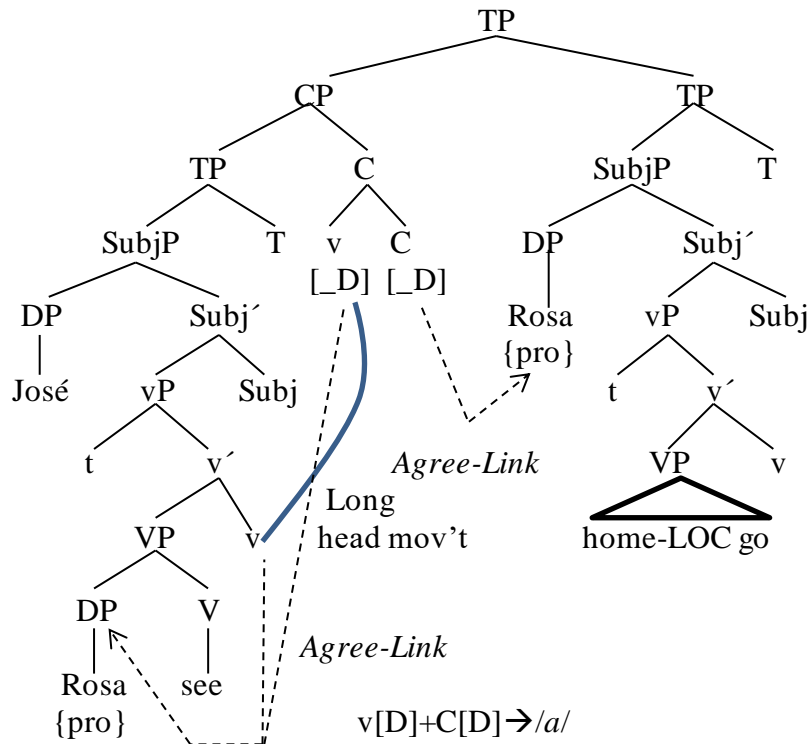
This distinction has previously been used to allow other operations to apply after Agree-Link but before Agree-Copy, such as linearization in the analysis of closest conjunct agreement (Bhatt & Walkow 2012; Marušič, Nevins et al. 2015) or the fusion of Number and Kase heads in the analysis of agreement with oblique subjects (Atlamaz & Baker 2018). B&CS's hypothesis is that SR can arise when Agree-Link happens twice in the syntax, but Agree-Copy does not happen at all. Then the pointers shown in (5) survive until the LF interface (unlike canonical cases of Agree producing agreement via Agree-Copy), where they are interpreted as indicating referential dependency. More specifically, B&CS sketch an interpretive procedure by which a pointed-to

¹ It is built into this version of Agree that heads probe for the category feature D (and/or N), not for phi-features. B&CS chose this execution because if SR heads probe for phi-features, the plausible reason would be because they themselves have unvalued phi-features. In that case they would be expected to copy phi-features from the goal—which SR heads do not do. Saying that heads probe for a category feature sidesteps this expectation. The claim that A-A heads probe for the D feature plays an additional role here: it means that a reflexive voice head can find an anaphor as its goal even if the anaphor is not specified for phi-features at the relevant point in the derivation; see the discussion of (33). (I thank an anonymous reviewer for pointing out the need for this clarification.)

DP with lexical content undergoes Quantifier Raising, and pointers to two different DPs without lexical content (traces or weak pronouns) are interpreted as variables bound by the same lambda operator, which takes the raised DP as its argument. As a result, the semantics of (1a)/(5) is approximately [José [λx [[When x saw Rosa] x went home]]] (see Camargo Souza (2020: ch.5) for some revisions and extensions).

This account of SS constructions generalizes to the OS construction in (4), as desired. The intuition is that just as T Agreeing with the embedded subject is a building block of SS, so v Agreeing with the embedded object is a building block of OS. Specifically, in the OS construction v Agrees downward with the object and then undergoes a long head movement, skipping over T, to fuse with C, which Agrees with the matrix subject. Therefore, the syntactic structure of an example like (4) is (7), with pointers created by Agree-Link and not removed by Agree-Copy. B&CS explain the fact that OS constructions are crosslinguistically rarer than SS constructions by saying that a theoretically marked type of head movement, v to C skipping T/Subj, is required for OS, whereas only ordinary T-to-C movement is needed for SS.

(7)



The pointers in (7) are interpreted at LF in essentially the same way as the ones in (5), giving the interpretation [Rosa [λx [[When José saw x] x went home]]].

Finally, B&CS argue that the DS construction in (1b) is simply one with normal v, T, and C, which do not undergo Agree-Link or head movement. The reference of the subjects and objects in the main and embedded clauses is thus syntactically unconstrained. However,

whenever a specialized SS or OS construction is possible with a particular meaning, that meaning is blocked for the simple CP adjunct.

The empirical heft of B&CS's theory comes from showing that the syntactic restrictions on which DPs are involved in the SS or OS coreference relation in the Panoan language are the same as the restrictions on which DPs are involved in subject or object agreement in languages with overt agreement. For example, the intervention condition on Agree implies that only the highest DP in the embedded clause can be the goal of T, hence equated with the matrix subject in an SS clause. Similarly, the phase condition on Agree implies that a direct or indirect object of the verb can be the goal of v, hence equated with the matrix verb in an OS construction, but the object of an adposition cannot, nor can a possessor inside the object, nor can a DP inside a CP complement (on the assumption that P, D_{poss} and C are phase heads). Finally the activity condition on Agree implies that in some languages a DP bearing oblique case cannot be the goal of an Agree relationship, so an oblique object in Shipibo cannot be equated with the matrix subject in an OS construction, whereas an object bearing structural case can. See B&CS: sec.3 for examples and discussion.

Even though SR constructions are subject to the formal restrictions on Agree, the functional heads involved do not actually manifest agreement in phi-features with the relevant DPs. Thus, if *José* in (1a) or *Rosa* in (4) is replaced by the first person plural pronoun *no*, the SS marker is still *ax* and the OS marker is still *a*. This is typical of SR systems throughout the world. SS and OS constructions are thus somewhat paradoxical in involving Agree but not agreement. B&CS claim that this seeming paradox is just what one should expect given that Agree-Link is logically distinct from Agree-Copy, SR constructions involving only the former. This is why they call their view an *Agree without agreement* (A-A) analysis.

It is worth emphasizing that there is nothing special about the DPs involved in the SS and OS constructions. When the adjunct clause is sentence initial, the DP in the embedded clause can be a pronoun or a full DP, and so can the subject in the matrix clause, as in English. Furthermore, Camargo Souza (2020: ch. 5) shows that when the adjunct clause follows the main clause, a full DP can be in the main clause and a pronoun in the embedded clause, but not vice versa, again as in English (*José went home when he saw Rosa* versus **He went home when José saw Rosa* (Reinhart 1983)). So these SR constructions obey the Binding theory (Condition C) in addition to the interpretive constraints put on the structure by Agree-without-agreement.

The upshot of this is that there are three heads that can be involved in Agree-without-agreement to provide the building blocks of head-induced referential dependency constructions: C, T, and v. A-A C together with A-A T creates the reasonably common SS construction. A-A C together with A-A v creates the rare but attested OS construction. A natural question, then, is what other possibilities arise within this theoretical framework? One obvious answer is that there could be an A-A T-like head—something that by virtue of its location naturally finds subjects—combining together with an A-A v-like head—something that naturally finds objects. The result would be a construction that expresses that the subject of the clause is an instance of the same variable as an object of the same clause. In other words, one derives a possible analysis of RV constructions like (2b) and (3b). The question, then, is whether this is the actual analysis for RV in some languages.

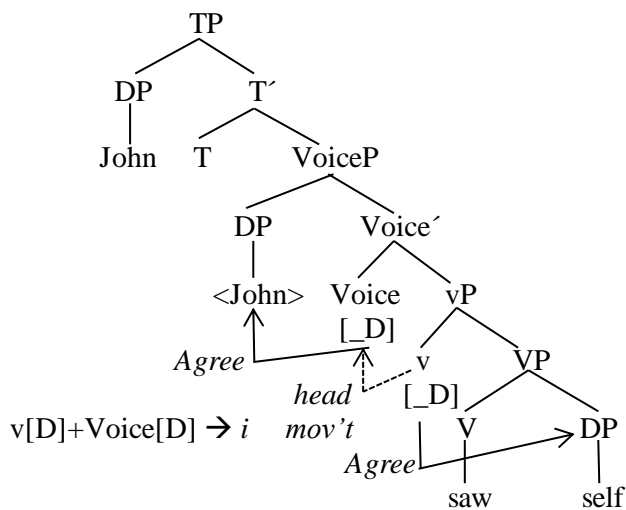
3 What an A-A reflexive voice should be like

To investigate this, I start top-down by imagining in more detail what the A-A-type of RV construction would look like, if it exists.

First, I make one immediate revision to the scenario outlined above: I assume that serious contenders for an A-A RV analysis involve the fusion of an A-A *v* head with an A-A Voice head, rather than with an A-A T head. Empirical motivation for this revision is the simple fact that RV morphology does not replace T-marking in examples like (2b) and (3b) but appears inside of it (whereas SS marking does replace the normal expression of T in Shipibo). Conceptual motivation comes from the fact that the SR constructions are the result of fusing one head that Agrees downward (T or *v*) with one head that Agrees upward into the matrix clause (C). The closer analog for an RV construction then would be fusing a head (*v*) that Agrees downward with a head that Agrees *upward* with the subject. If the pointer to the subject should come from below, then its natural starting point is Voice, not T, where I now distinguish Voice from *v* following Pylkkänen (2008), Harley (2013), and others. The proposed A-A analysis for an RV construction like (2b)/(8a) would then be (8b).²

- (8) a. Yohana a-a-i-bon-a omw-eene.
 John CL1-PST-REFL-see-FV CL1-own
 ‘John saw himself.’

b.



With this structure in mind, we can inventory the empirical properties that such a construction is expected to have. They are:

² There are variants of this analysis that can certainly be considered. One would be to say that a single head, Voice, probes twice, once downward into its *v*P complement finding an object, and once upward finding the thematic subject, rather than having two adjacent heads probe once each, as in (8b). This would be along the lines of Arregi & Hanink’s (2021) approach to SR. Indeed, B&CS: 1104-1105 adopt the Voice-probing-twice version for RV in Shipibo for reasons involving how RV interacts with OS switch-reference. An alternative to B&CS’s use of Agree-Link is Arregi & Hanink’s hypothesis that Agree in SR copies index features rather than phi-features; see also Clem (2020). The essence of my analysis could be captured using this version as well. The goal of this work is not to choose between the different versions of an Agree-based theory of SR on the market, but to show how such a theory can be extended to RV constructions.

- (9)
- a. The construction should include an affix in the middlefield of the verbal morphology—inside of tense and agreement marking but outside of derivational morphology and most applicatives and causatives. It would probably be in complementary distribution with other Voice heads, like passive.
 - b. The arguments involved in the reflexive relationship should be those that can enter into an Agree relationship with heads in this position: the thematic subject and the highest object with structural case.
 - c. The reflexive affix should not vary with the phi-features of the arguments in the reflexive relationship.
 - d. The construction should be interpreted semantically as bound variable anaphora, with two argument positions bound by the same lambda operator.
 - e. The construction should still have two syntactically-realized DP arguments.

This is a detailed and distinctive profile of properties, not identical to the predictions of any existing general theory. For example, (9a) distinguishes an RV construction from constructions using only DP anaphors. (9a) along with (9c) also distinguishes this construction from reflexive clitics like those found in the Romance languages, which have variable placement and change with the phi-features of the subject. (9e) distinguishes the A-A RV construction from both an analysis in which RV is a valence-reduction process that applies in the lexicon, as Reinhart & Sioni (2005) propose for Hebrew, and from analyses in which RV is analyzed as being very similar to passive voice (Marantz 1984, etc.). (9b) may also distinguish A-A RV from a passive-like RV analysis in some languages, as I argue below for Shipibo.

The next question, then, is whether any language actually has this distinctive profile of properties. I claim the answer is yes, the Bantu language Lubukusu does, as well as perhaps the Dravidian languages Kannada and Tamil.

4 A-A reflexive voice constructions with overt anaphoric objects

Lubukusu is a Bantu language spoken in Western Kenya, whose anaphoric system has been studied in detail by Safir and Sikuku's (2011) (S&S) anaphora sketch and the associated questionnaire (AnQ). An initial example of reflexive voice with the prefix *i* in Lubukusu was given in (2b); another is (10b). Lubukusu also has a distinct reciprocal voice, marked by the suffix *an*, as shown in (10c). These Lubukusu constructions provide a good starting point for the A-A theory because these affixes are used only for reflexive and reciprocal constructions. They are not, for example, used productively in middle and anticausative constructions, the way that reflexive clitics are in many Indo-European languages, among others.³ (If anything, the stative suffix *ikh* is used for anticausatives in Lubukusu; see AnQ: 32).

³ An anonymous reviewer conjectures that RV affixes are always used in middle/anticausative constructions as well as in reflexive/reciprocal constructions, and a good analysis of RV should explain this. But Lubukusu and its Bantu kin speak against this blanket identification. Another language in which RV is distinct from middle/anticausative is Mohawk: reflexive verbs bear the prefix *atat* whereas anticausative verbs bear the distinct (albeit historically related) affix *at*. Linguistic theory thus needs an analysis of RV constructions that does not automatically extend to middles/anticausatives, and my proposal provides such a theory. See also note 7.

The Lubukusu RV affixes might have some other minor and idiosyncratic uses. For example, S&S (47 n.3) mention in passing a lexicalized “antipassive” use of *an* in Lubukusu. I put this aside.

- (10) a. Ba-khasi ba-a-fwochol-a Yohan. (AnQ: 7)
 CL2-woman CL2-PST-describe-FV John
 ‘The women described John.’
- b. Ba-khasi ba-a-**i**-fwochol-a (bab-eene). (AnQ: 34)
 CL2-woman CL2-PST-REFL-praise-FV CL2-own
 ‘The women described themselves.’
- c. Ba-khasi ba-a-fwochol-**an**-a (bab-eene khu b-eene). (AnQ: 34)
 CL2-woman CL2-PST-praise-RECIP-FV CL2-own on CL2-own
 ‘The women described each other.’

Versions of the affixes *i* and *an* are found in many Bantu languages. Neither shows any variation for person and number (AnQ: 5, 12). They are both middlefield affixes, in that *i* comes after tense and subject agreement but before the verb root, whereas *an* comes after the verb root and causative and applicative morphemes (usually) but before aspect and mood suffixes, including the so-called final vowel. Lubukusu’s RV constructions thus have the morphological properties of the A-A RV profile in (9a) and (9c). It is also true that the reflexive and reciprocal markers cannot co-occur with passive voice morphology on simple verbs (those without a causative affix, S&S: 48 n.2; AnQ: 31). These constructions also have the semantics expected of an RV construction (property (9d)).

What is somewhat unusual about Lubukusu as compared to other Bantu languages is the fact that these RV affixes can be and often are doubled by an overt nominal in the object position: a form of *eene* ‘owner’ in the case of reflexive, and a complex collocation with two instances of *eene* in the case of reciprocal. S&S discuss this in detail, arguing that *eene* is a kind of anaphoric nominal; it can appear as the complement of a preposition, for example, and when it does it can have an antecedent inside the sentence (see (15)). S&S also argue that the *eene* forms occupy the canonical direct object position, immediately after the verb and before adverbial elements, as shown in (11).

- (11) a. Wekesa a-a-i-siim-a omw-eene lukali. (?...lukali omw-eene)
 Wekesa CL1-TNS-REFL-love-FVCL1-own much much CL1-own
 ‘Wekesa loves himself a lot.’ (S&S: 40)
- b. Babaana ba-a-siim-an-a bab-eene khu b-eene lukali. (?...lukali b. khu b.)
 CL2-child CL2-TNS-love-RECIP-FVCL2-own on CL2-own much
 ‘The children love each other a lot.’ (S&S: 41)

Presumably what makes Lubukusu different from some other Bantu languages is the evolution of *eene* into a kind of overt DP anaphor. Once this form comes into existence, it can be used in RV constructions as well as apart from them (as in (14a) and (15a)). More generally, the object position in an RV construction can be phonologically null, or it can contain anaphoric *eene*, but it cannot contain an ordinary pronoun like *niye*.

- (12) Ba-khasi ba-a-**i**-fwochol-a {Ø / bab-eene / *ni-bo}. (AnQ: 34)
 CL2-woman CL2-PST-REFL-praise-FV Ø / CL2-own / 3SG-CL2

‘The women described themselves/*them.’

Lubukusu thus has the crucial A-A property in (9e): its RV markers are not detransitivizing morphemes, but more like a special sort of agreement marker, as S&S: 41 note explicitly.

What that remains to be shown, then, is property (9b) of the A-A RV profile: that the arguments involved in the reflexive or reciprocal relationship are those that can enter into an Agree relationship with heads in the Voice and *v* positions—the thematic subject and the highest object with structural case. For reasons of space, I show this explicitly for reflexive marking, and refer the reader to AnQ for parallel examples with reciprocal marking.

One instructive context to look at is double object constructions involving a basic ditransitive verb like ‘give’, or one derived via an applicative construction. In principle, there are three pairs of arguments that could be in a reflexive relationship with this type of predicate: the agent and the goal, the agent and the theme, or the goal and the theme. In fact, only the pairing of agent and goal goes along with reflexive marking. (13) illustrates this grammatical possibility.

- (13) Maria a-a-i-elesy-a omw-eene si-anua. (AnQ: 39)
Mary CL1-PST-REFL-gave-FV CL1-own CL7-gift
‘Mary gave herself a gift.’

In contrast, (14a) shows that when a theme=goal interpretation is intended, anaphoric *eene* is used in the theme position, but the verb does not bear the RV prefix. (14b) shows that *i* cannot express an agent=theme relationship in a true double object construction; rather, the goal argument is expressed as a PP to get this meaning.

- (14) a. Maria a-a-w-a bab-aana bab-eene. (AnQ: 4)
Maria CL1-PST-give-FV CL2-child CL2-own
‘Maria gave the children themselves.’ (not **a-a-i-w-a*)
- b. *Yohana a-a-i-okesy-a bab-aana omw-eene.
Yohana CL1-PST-REFL-show-FV CL2-child CL1-own
‘John showed the children himself.’
OK: Yohana a-a-i-okesy-a omw-eene khu b-aana. (AnQ: 39)
John CL1-PST-REFL-show-FV CL1-own to CL2-children.
‘John showed himself to the children.’

This relatively restricted distribution of RV marking is just what the Agree-based theory sketched in (8b) expects. Voice probing upward can only find as its goal the agent argument originally in Spec VoiceP. Then *v* probing downward can only find the highest DP inside its VP complement, by the intervention condition. For double object constructions, this is the goal argument, not the theme argument, on standard assumptions. Therefore, Lubukusu’s RV constructions do display restrictions that are characteristic of Agree.

There is also evidence that Lubukusu's RV constructions obey the phase condition on Agree. Anaphoric *eene* can be the object of a preposition, taking the local subject as its antecedent, as in (15). However, reflexive *i* does not naturally appear on the verb in such cases:⁴

- (15) a. Yohana a-a-(*i)-kachul-il-a Maria khu omw-eene. (AnQ: 39)
 John CL1-PST-(*REFL)-tell-APPL-FV Maria on CL1-own
 'John told Mary about himself.'
- b. ??Yohana a-a-i-indekheleel-a khu omw-eene. (AnQ: 37)
 John CL1-TNS-REFL-worry-FV on CL1-own
 ('John worries about himself.')

Similarly, (16) shows that reflexive *i* does not normally appear on the verb when the possessor of the direct object is coreferential with the subject of the clause:⁵

- (16) a. Paulo a-a-(*i)-tib-i-a bi-raro bi-ewe. (AnQ: 13)
 Paul CL1-PST-(*REFL)-lost-ASP-FV CL13-shoe CL13-his
 'Paul lost his shoes.'
- b. Nicki a-a-chanu-a li-chune li-ewe omw-eene. (AnQ: 41)
 Nick CL1-PST-comb-FV CL5-hair CL5-his CL1-own
 'Nick combed his own hair.'

The badness of reflexive voice in these examples follows if P and possessive D are phase heads, preventing *v* from finding a goal inside their complements;⁶ compare B&CS's (1066-1068) analysis of parallel restrictions on OS switch-reference in Panoan. One further fact along these lines is that reflexive morphology cannot express that the subject of a finite complement clause is coreferential with the subject of the matrix clause, as in (17a), whereas it can express that the subject of a nonfinite complement clause is coreferential with the matrix subject in an ECM-type construction, as in (17b).

- (17) a. Jack a-a-lom-a a-li omw-eene a-li omu-miliyu. (not *a-a-i-lom-a)
 Jack CL1-PST-say-FV CL1-that CL1-own CL1-be CL1-smart (AnQ: 52)
 'Jack said that he is smart.'
- b. Yohanna a-a-i-bukul-a omw-eene khu-b-a omu-miliyu. (AnQ: 55)
 John CL1-TNS-REFL-consider-FV CL1-own INF-be-FV CL1-smart
 'John considers himself to be smart.'

⁴ But see S&S (4, 50 n.14) on one anomalous example: 'John spoke about himself', with seeming RV with the object of a P. They speculate that the RV marker in this example really indicates a goal argument ('to himself') rather than the 'about' argument.

⁵ A few examples like (16) are possible with inalienable possession, like 'Paul REFL-cut (on)-hand (his)' (AnQ: 13). The better gloss for these is probably 'Paul cut himself on his/the hand', with the reflexive as direct object.

⁶ As in Baker (2015: 167-168) and Myler (2016: sec. 1.4), I assume that a crosslinguistically common structure for possessed nominals is [D [DP_{possr} Poss [NP]]], with the possessor in Spec PossP and PossP the complement of phase head D. Then the possessor is inside the spelled out domain of D.

This pattern is also what we expect on the A-A analysis, given that C is a phase head and finite clauses always have C (*a-li* in (17a)), but some nonfinite clauses do not (Wurmbrand 2003, among many others). So we see that which coreference relationships require RV morphology and which forbid it can be explained under the assumption that Agree is crucially involved. (The third major restriction on Agree, the activity condition, is moot for Lubukusu, because the language does not have oblique case.)

I conclude, then, that Lubukusu’s RV constructions have exactly the profile of properties in (9) that the A-A analysis predicts. The possibility of having an overt DP anaphor in the object position rules out true detransitivizing alternatives, while the restrictive distribution of RV morphology points to Agree being at work. Nevertheless, the RV affixes do not vary with the phi-features of the DPs in the anaphoric relationship. Therefore “Agree-without-agreement” is a very appropriate notion here.

Other languages that have similar RV constructions are Kannada and its Dravidian kin Tamil and Telugu. These have been the subject of a rich series of studies by Lidz (1995; 2001a; 2001b), Sundaresan (2012; 2016), and Balusu (2019), among others. A canonical Kannada example is (18). Here the verb of the reflexive clause necessarily bears the phi-invariant affix *koL* in the Voice-like position, after the verb root and aspect but before tense and subject agreement. Nevertheless, the clause is not detransitized; rather it can and usually does have an overt anaphor—but not a pronoun—in the object position. This anaphor bears overt accusative case, showing it to be the object, not some kind of adverbial element.

- (18) Hari { \emptyset /tann-annu/ tann-annu-taane /*awan-nu} hoDe-du-**ko**-ND-a.
 Hari { \emptyset / self-ACC/ self-ACC-self/ *he-ACC} hit-ASP-REFL-PST-3.SG.M
 ‘Hari hit himself.’ (Lidz 2001a: 334, 314 n. 5)

As with (12) in Lubukusu, the contrast between *tannannu* and **awannu* in (18) suggests that Binding conditions A and B still apply to the RV construction, requiring the object bound by the subject to be some kind of anaphor (where available), rather than a pronoun. What *koL* does is put an additional requirement on the interpretation of clauses it appears in, saying that the object must be bound specifically by the local subject. This is parallel to SS marking in Shipibo, which does not suppress either subject position or void the requirements of Binding theory (particularly Condition C), but does constrain the two subjects to be coreferential. Finally, Kannada/Tamil’s RV construction is subject to the same restrictions characteristic of Agree as Lubukusu’s is. Thus, Lidz (2001a: 338) shows that *koL* can be used on a ditransitive verb to show that the agent and the goal arguments are the same, but it cannot be used on a ditransitive verb to show that the goal and the theme are the same; compare (13) and (14) in Lubukusu. Similarly, Lidz (2001a: 312 n.4) shows that *koL* is not used when the object of a P is coreferential with the local subject; compare (15) in Lubukusu. Finally, Lidz (2001a: 340) shows that *koL* is not used on the matrix verb ‘say’ when its finite CP complement has a subject coreferential with the matrix subject, but Lidz (1995: 709) shows that *koL* can be used on the matrix verb ‘believe’ when it takes a reduced small-clause complement; compare (17a) and (17b) in Lubukusu. The Kannada and Lubukusu RV constructions are thus similar enough to make a unified analysis desirable, and the A-A theory can provide that analysis.

Unlike Lubukusu, Kannada and Tamil have a distinctive psych-verb construction, in which the subject bears dative case. Baker (2015: 188-197) argues that this case pattern follows from both arguments being internal arguments of the verb, with dependent dative case assigned

to the experiencer argument within VP. Correlated with this special syntactic structure is the fact that *koL* cannot be used when one argument of such a verb is referentially dependent on the other, as in (19) from Kannada (Lidz 2001a: 335; see Sundaresan 2012; 2016 for Tamil).

- (19) Rashmi-ge Hari/tannu ishta-aada. (*ishta-aad-du-ko-ND-aLu)
 Rashmi-DAT Hari.NOM/self.NOM liking-becomes (*liking-become-ASP-REFL-PST-3.SG.F)
 ‘Rashmi likes Hari/herself.’

The A-A analysis accounts for this restriction too. Given that there are two DPs inside VP and none generated in Spec VoiceP in this construction (prior to EPP-driven movement, if any), there is no goal for Voice to find when it probes upward. Thus if the A-A probes that underlie RV morphology are merged with this type of verb, the structure crashes.

The A-A analysis of RV in Kannada/Tamil faces one significant concern that does not arise in Lubukusu (emphasized by an anonymous reviewer). This is the fact that the affix *koL* is also used productively in clauses that are not reflexive or reciprocal. One not-surprising case is its use in anticausative/unaccusative constructions like ‘The door opened’ and ‘The branch bended’ (Lidz 2001a, Sundaresan 2016); this is a common and familiar property of reflexive/middle voice in many languages. Less common is the fact that *koL* in Kannada/Tamil can also be used on transitive verbs with nonanaphoric objects: for example, ‘Mansi milk-ACC pour+*koL*+T/Agr’ is possible meaning ‘Mansi poured the milk on/for herself’ (Sundaresan 2016; see also Lidz 2001a: 319). Lidz (2001a) and Sundaresan (2012; 2016) very reasonably develop sophisticated theories that are designed to capture the reflexive uses of *koL* and these middle/anticausative uses in a unified way. But for that very reason, their theories would need to be modified significantly to capture the narrower usage of RV in Lubukusu. The approach I suggest here is different. I propose to give a unified analysis of RV in Lubukusu and the reflexive uses of *koL* in Dravidian, in light of their strong similarities. Then I would assign a somewhat different syntactic structure to the middle uses of *koL* in Dravidian, looking to the morphological component to explain the full distribution of *koL* as a case of syncretism, where a single underspecified vocabulary item happens to be the best fit for two somewhat different grammatical structures. I do not have the space or expertise to show here that this interpretation of the Dravidian facts is superior to Lidz’s or Sundaresan’s for Dravidian analyzed on its own, but I claim that both interpretations of the facts should be considered. This will allow us to debate which strategy ultimately gives the best overall theory of all the relevant comparisons, both language internal and crosslinguistic.⁷

I conclude, then, that Lubukusu provides us with a paradigm case of the A-A analysis of RV, and that Dravidian languages offer other possible examples of this.

⁷ Along these lines, see Balusu (2019) for an argument from morpheme order that reflexive *kun* and unaccusative *kun* in Telugu are different constructions, not as closely related as one might think.

My very tentative version of a common strategy to try to explain instances of reflexive-unaccusative homophony is as follows. Unaccusative clauses have a trace in a thematic object position and a nonthematic subject; the two are referentially nondistinct because they are members of the same movement chain. As such, these agentless constructions have something in common with reflexive clauses, where the thematic object position is referentially dependent on the thematic subject position. This commonality could be enough to justify the same vocabulary item being inserted at PF in both constructions. Analogous issues arise in the domain of SR, where SS marking is used in both subject control constructions and subject-to-subject raising constructions (Camargo Souza 2020: ch.4). I have no conjecture to offer about how the Dravidian-specific use of *koL* on transitive verbs like ‘pour’ fits into this.

5 Shipibo reflexives as a less canonical case of A-A reflexive voice

Now that we have a clear picture of what a paradigm case of an A-A RV construction looks like, I revisit RV in Shipibo, already discussed rather briefly at the end of B&CS. Shipibo RV constructions clearly have properties (9a-d), very much like Lubukusu. However, they seem to lack property (9e), displaying instead detransitivization, as seen in (3). Nevertheless, I argue that the A-A analysis is still the best overall fit for RV in Shipibo. In this, I explore how an A-A RV construction can be somewhat disguised on the surface, which is very relevant to the typological study of RV constructions.

Like Lubukusu, Shipibo has two RV constructions: a reflexive voice shown in (3b) and (20b), and a reciprocal voice shown in (20c). Reflexive voice is expounded by the so-called “middle” verb form, often an underlying *t* (deleted before consonants) but with quite a few idiosyncratic allomorphs. This morpheme is also used in anticausative and passive-like clauses, raising similar issues to those just discussed for *koL* in Dravidian. In contrast, reciprocal voice is expounded by *anan*, which has no other productive uses (PV: ch. 18), like *an* in Lubukusu. In light of their similarities—and in keeping with the strategy just outlined—I analyze the two constructions as having essentially the same syntax (different from B&CS), except that a lexical difference in the semantics of the Voice head determines exactly how the referential dependency is interpreted (as in Lubukusu).

- (20) a. E-n=ra bake boex-ai. (PV: 265)
 1SG-ERG=EV child.ABS comb-IPFV
 ‘I comb the child.’
- b. E-a=ra boexe-**t**-ai.
 1SG-ABS=EV comb-REFL-IPFV
 ‘I comb myself.’
- c. Oa rabé=ra boexe-**anan**-ai.
 DIST two=EV comb-RECIP-IPFV
 ‘These two comb each other.’

These qualify as RV constructions in that the distinctive expression of reflexivity or reciprocity is a voice-like suffix on the verb, positioned outside lexical/derivational/thematic affixes like causative *ma* ((22a)) and applicative *xon* ((30)) and inside inflectional affixes associated with T, like imperfective *ai* in (20). The suffixes also do not vary with the phi-features of the arguments in the anaphoric relation, whether second person ((3b)), first person ((20b)), or third person ((22a)). The constructions also have the bound-variable semantics of reflexive or reciprocal; for example, (20b) means [I [λx [x combed x]]. So these Shipibo constructions are serious candidates for an A-A analysis like (8b).

It can also be shown that the Voice and *v* heads in these constructions relate to the arguments involved in the anaphoric relationship in the constrained way that is characteristic of Agree (property (9b)). Indeed, the restrictions on RV in Shipibo are very similar to those we have already enumerated for Lubukusu and Kannada. First the fact that the Voice head probes upward once means that RV cannot be used to express reflexivity with a psych predicate that takes two internal arguments, like ‘want’. As in Dravidian, these psych verbs can be recognized

by their special case frame: they take two DPs in absolutive case and no ergative argument, as in (21a) (Baker 2014: sec. 4.2). Such verbs cannot be put in reflexive voice; rather, a reflexive relationship is expressed by simply omitting the object (and including a suitable adverb).⁸

- (21) a. Wesna=ra Tsoma keen-ai. (PV: 785)
 Wesna.ABS=EV Tsoma.ABS want-IPFV
 ‘Wesna loves/wants Tsoma.’
- b. Wesna=ra ja-n-bi-x keen-ai. (not **kee-meet-ai*)
 Wesna.ABS=EV 3-NOM-EM-S want-IPFV want-REFL-IPFV
 ‘Wesna loves/wants herself.’ (Also ‘Wesna herself wants him/her/it.’)

Similarly, *t* or *anan* attached to a ditransitive verb like ‘send’ cannot bind one internal argument to the other, yielding a meaning like “X sent Y to Y”. Rather, the only attested meaning for such forms is “X sent Y to X”, involving the external agent argument in the anaphoric relationship.

- (22) a. Wesna=ra kirika bo-ma-kaa[t]-ke. (PV: 785)
 Wesna.ABS=EV letter.ABS carry-CAUS-REFL-PFV
 ‘Wesna sent a letter to herself.’
- b. Jabo=ra piti meni-anan-ke. (fieldnotes)
 they.ABS=EV food give-RECIP-PFV
 ‘They gave each other food.’

The examples in (22) are also relevant to the *v*-Agreeing-downward component of the A-A RV construction. The intervention condition predicts that the higher of the two internal arguments of ‘send’ or ‘give’ will be in the reflexive/reciprocal relationship with the agent in Spec VoiceP, because that is the argument that a probing *v* can locate. This is true in (22), under the usual assumption that goal NPs are higher than themes. Valenzuela (2003: 812) writes of reciprocals derived from ditransitive verbs that “the derived subject plays also the semantic role of *recipient or dative*.”⁹ In addition, the phase condition on Agree implies that RV cannot bind to the agent a DP that is in the domain of another phase head like P or D. Thus anaphoric readings are possible in (23) and (24), but these readings do not call for reflexive morphology on the verb.¹⁰ This converges with B&CS’s (1066-1068) evidence that OS switch-reference cannot find as its pivot an NP inside PP or a possessive DP.

⁸ Valenzuela (2003: 805) attests one example of reciprocal *anan* attaching to *keen*, but the example is noncanonical in that it has a singular subject. This may represent a somewhat different (lexicalized) use of the affix.

⁹ The empirical and theoretical situation regarding examples like (22) is complicated somewhat by the fact that Shipibo behaves like a symmetrical object language in some contexts (Valenzuela 2003: 527-532). B&CS: 1064-1066 analyze this by saying that the theme argument can move to a position above the goal argument, following McGinnis (2001). This movement could potentially feed Agree, making an agent=theme interpretation possible for examples like (22). However, B&CS show that this movement does not happen with dyadic unaccusative verbs, which take two internal arguments and no external argument. Theoretically speaking, it is not clear whether RV constructions should be more like ditransitives or dyadic unaccusatives in this respect. The empirical facts are also somewhat unclear: Valenzuela (2003) gives no examples with an agent=theme interpretation, but Torres Bustamante (2011) does give one for reciprocal voice. I leave further investigation of this matter for future research.

¹⁰ Valenzuela (2003: 813-814) gives some examples similar to (24) with the reciprocal affix on the verb, but she remarks that they are really “external possession” constructions. I leave the analysis of her examples open.

(23) Wesna-n=ra chomo ja pekáo a-ke. (PV: 787)
 Wesna-ERG=EV jar.ABS 3 behind do-PFV
 ‘Wesna put the jar behind her(self).’

(24) Ja-n=ra jawen poi rete-ke. (PV: 787)
 3-ERG=EV 3.POSS opposite.sex.sibling.ABS kill-PFV
 ‘She_i killed her_{i/k} brother.’

Finally, unlike Lubukusu, Shipibo does have verbs that take objects bearing oblique case. Thus the activity condition on Agree comes into play in this language, implying that reflexive voice should not be able to bind the oblique object of a psych verb to its experiencer subject in Shipibo, just as OS morphology cannot pick out an oblique object as a pivot (B&CS: 1071). This is also true: Valenzuela (2003) says that reflexive predicates are expressed not by a middle form of the verb, but by dropping the oblique object.¹¹

(25) a. Wesna=ra Tsoma-ki siná-ke. (PV: 783)
 Wesna=EV Tsoma-DAT get.angry.at-PFV
 ‘Wesna got angry at Tsoma.’

b. Wesna=ra siná-ke.
 Wesna=EV get.angry.at-PFV
 ‘Wesna got angry at herself.’ (Also ‘Wesna got angry.’)

So we see that RV in Shipibo is restricted in the range of anaphoric relationships it can express. These restrictions are parallel to the ones we observed in Lubukusu and Kannada and can readily be attributed to Agree. Therefore, there is considerable attraction to analyzing RV in Shipibo like RV in these other languages.

But now we come to the glaring weakness of the A-A analysis of RV in Shipibo. Unlike Lubukusu and Kannada, Shipibo RV clauses appear to be intransitive. No overt DP is present in the object position, analogous to *eene* or *tan*. That by itself may not much worry the generative linguist, whose world is full of null DPs. Indeed, having no overt anaphor in the object position is possible in Lubukusu and Kannada as well (see (12), (18)). This could be seen as a kind of generalized pro-drop phenomenon, such that a DP can be omitted at PF when its content is rendered predictable by morphology on the verb. The level of concern is raised, however, by the fact that the null object does not reveal its presence by triggering ergative case on the subject in Shipibo. It is notable that the subjects are in absolutive case in (20b,c), in contrast with (20a). A putative null anaphor in RV sentences is different in this respect from ordinary null pronouns in Shipibo, which do trigger ergative case on the subject, as in (26a) as opposed to (26b).

(26) a. Apo jo-ke-tian=ra, e-n [pro] oina iki. (Baker 2015: 203)
 president come-PFV-DS=EV I-ERG (him) see AUX
 ‘When the president came, I saw him.’

¹¹ Valenzuela (2003:808-809) says that some verbs with oblique objects can appear with the reciprocal affix, but she qualifies this by saying that “native speakers may disagree with regard to the acceptability of most of the verb forms above.”

- b. **E-a=ra** [*self?*] mashi-n mii-mee[t]-ke. (PV: 792)
 I-ABS=EV [*self*] sand-LOC bury-REFL-PFV
 ‘I buried myself in the sand.’

In B&CS (1108 n.49), we acknowledge this in a footnote and pretended not to be too concerned about it. We invoked the possibility that reflexive objects do not trigger ergative case on the subject because they do not have phi-features, which is a necessary condition for a phrase to count as a “case competitor” for ergative case assignment in some languages (Baker 2015: ch. 5). However, we forgot that even in a ditransitive sentence in reflexive or reciprocal voice, like (22a,b) or (27), the subject is absolutive, not ergative.

- (27) **Jabo=ra** joi yoi-anan-ai. (PV: 812)
 they.ABS=EV word.ABS tell-RECIP-IPFV
 ‘They tell each other stories.’

Even if the subject c-commanding a null anaphor in the goal position does not make the subject ergative, the subject c-commanding the overt DP in the theme position should, one would think. So the A-A analysis of RV in Shipibo is vulnerable here, and a valence-reducing analysis may seem more promising.

However, existing and easily-imagined valence-reducing analyses do not actually do better on this point than the A-A analysis. There are two main possibilities: either RV involves suppressing an internal argument of the verb in the lexicon, as Reinhart & Sioni (2005) propose for Hebrew, or it is a Voice head that fails to add an external argument to the clause, as in a passive-like analyses of RV (Marantz 1984; Bruening 2008, etc.). Both options face unresolved problems.

Reinhart & Sioni (2005) argue that reflexivization suppresses an internal argument of the verb, creating an unergative clause structure. Generalizing this to the ditransitive case, RV in (22) and (27) would suppress the goal argument, binding it to the agent argument. This would leave the agent as an external argument and the internal theme argument. Valence reduction in this case thus creates a dyadic verb with an external argument and an internal argument—the same argument structure as an ordinary transitive verb. Therefore, the syntactic structure should be that of an ordinary transitive clause as well, and case assignment should proceed as usual, assigning ergative to the subject. Therefore, this valence-reducing alternative makes the same false prediction for (22)/(27) as my A-A RV analysis does.

A passive-like analysis of RV is initially more promising. Marantz (1984) proposes a classic version of this analysis; see Bruening (2008) for a more contemporary version (with some quirks). I have also argued for it for particular languages over the years, including Chichewa (Baker 1988), Mohawk (Baker 1996), and Shipibo (Baker 2014: 360-361). According to this view, the internal arguments inside VP (or ApplP) are projected as usual, but a special Voice head takes VP/AppIP as its complement. This special Voice does not license a specifier, as passive Voice does not. The difference between the two is arguably just semantic: passive Voice says that the understood agent of the event denoted by the verb root is existentially bound, whereas reflexive/reciprocal Voice says that the understood agent of the event is the same as the referent of the DP that moves to Spec TP position. This derived subject is the theme argument of ordinary monotransitive verbs, but it is the goal argument of ditransitive verbs, by ordinary

relativized-minimality-type restrictions on A-movement. On this analysis, reflexive verbs derived from ditransitives should look like basic dyadic unaccusatives with two internal arguments and no external argument—like verbs like *keenti* ‘want’. And this is true: the RV clauses in (22) and (27) have two absolutive arguments and no ergative argument, just as the clause with *keenti* ‘want’ does in (21a). This was indeed my (2014) analysis.

But all is not smooth sailing for the passive-like analysis (as noted already in Baker 2014: 371 n.27). The issue is how each analysis picks an internal argument to be equated with the agent argument of the verb. For the A-A RV analysis, this is done by Agree, with v/Voice Agreeing downward into the greater verb phrase. For the passive-like analysis, this is done by A-movement to the Spec TP position to satisfy the EPP property of T. Often these two operations obey very similar restrictions. In particular, relativized minimality considerations apply to both, generally privileging the higher goal argument over the lower theme argument. But the restrictions are not *always* the same. Sometimes movement theory favors moving the theme argument to Spec TP rather than the goal argument. One familiar reason why this can happen is if the goal argument bears an inherent case, like dative. But another reason can be seen in Amharic (Baker 2012; Baker 2015). In this language, object agreement (or cliticization) in a ditransitive clause picks out the goal argument, as in (28a). Passivization, however, picks out the theme argument, such that the theme argument has nominative case and triggers subject agreement in the passive of a ditransitive like (28b) (word order is influenced by information structure factors).

- (28) a. Ləmma **Almaz-in** tarik-u-n nəggər-at. (*nəggər-ə-w)
 Lemma.M Almaz.F-ACC story.M-DEF-ACC tell-(3.M.S)-3.F.O (*tell-3.M.S-3.M.O)
 ‘Lemma told Almaz the story.’
- b. Almaz **tarik-u**-(*n) tə-nəgr-ow-at nəbbər.
 Almaz.F story.M-(*ACC) PASS-tell-3.M.S.GER-3.F.O AUX
 ‘The story was told (to) Almaz.’

My analysis of this is that goal arguments in Amharic are contained in a PP shell with a null P head. This null P is not a phase head, so it does not block Agree in (28a). But it does affect movement: it prevents the goal argument from moving to Spec TP to satisfy the EPP property, and it allows the theme argument to cross over the goal to reach Spec TP (see (31b) below).

This is relevant because there is evidence that Shipibo is like Amharic in this respect. Shipibo does not have a true passive, but it has applicatives derived from unaccusative constructions like (29). These are like passives of ditransitives in that they have two internal arguments, a goal-like benefactee (or malefactee) and a theme, but no external argument. In such clauses, the goal argument cannot move to Spec TP, whereas the theme argument must, with the result that the theme argument has ergative case in (29). (Switch-reference and plural subject agreement also show that the theme is the grammatical subject in sentences like (29).)

- (29) Bimi-n=ra Rosa joshin-xon-ke. (fieldnotes; PV: 694)
 fruit-ERG=EV Rosa.ABS ripen-APPL-PFV
 ‘The fruit ripened for Rosa.’

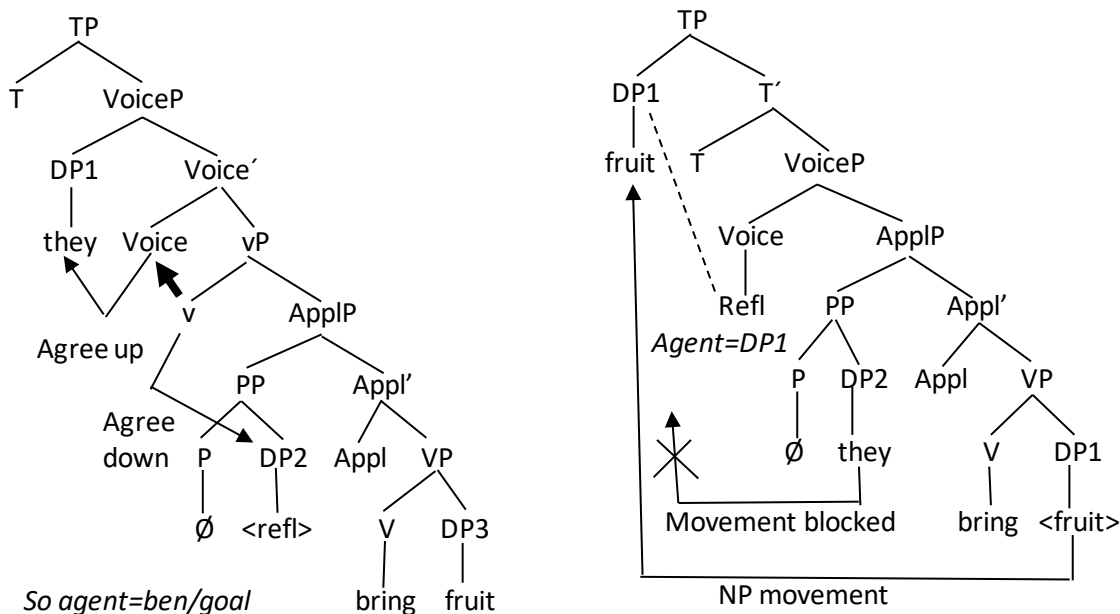
Now let us return to RV constructions in Shipibo in this light. Consider a transitive verb with an applicative affix in reciprocal voice. On the passive-like analysis of RV, a crucial ingredient is A-movement to Spec TP. As in (28) and (29), this movement should make the theme argument into the subject, not the goal/benefactee argument (see (31b)). Therefore, the theme argument should be interpreted as the same as the agent, such that the resulting form means ‘X brought each other to Y’, not ‘X brought Y to each other.’ Furthermore, the theme argument should bear ergative case, as it does in (29). But in fact it is the goal=agent meaning that is attested in examples like (30), and the theme argument has absolutive case, not ergative.

- (30) Jabo=ra kokoti-bo be-xon-anan-ai. (PV: 811)
 they=EV fruit-PL bring-APPL-RECIP-IPFV
 ‘They bring fruit for each other.’

Therefore, a serious problem for the passive-like analysis of RV in Shipibo emerges upon close comparison with analogous structures.

In contrast, the A-A approach works well for (30). By hypothesis, the PP shell around the goal is transparent to Agree, as in (28a) from Amharic. There is also Shipibo-internal evidence for this, in that OS switch-reference can find the applied argument of a transitive verb as its goal/pivot (B&CS: 1065). By parity of reasoning, the Agree probe on *v* in the RV construction should also find the goal/benefactive argument as its target, as in (31a), resulting in an agent=goal/benefactee reading. So the A-A analysis does make the right prediction about (30). Here the predictions of a movement-based theory and an Agree-based theory come apart, and it is the Agree-based theory that makes the right prediction. The two contending analyses are contrasted graphically in (31).

- (31) a. Agree-agreement analysis (works) b. NP-movement analysis (fails)



To recap, the A-A analysis for RV in Shipibo looks vulnerable when it comes to evidence that the structure is still fundamentally transitive in the syntax. But the valence-reducing analyses do not do better on the crucial examples. Therefore, I claim that the A-A analysis is the best overall theory of RV in Shipibo as well. The price of this analysis is twofold: a continued commitment to the existence of null anaphors in Shipibo, and a revision of the rule of ergative case assignment. Again, I do not consider positing a null anaphor to be a big cost; there is arguably one present also in (12) from Lubukusu, (18) from Kannada, and in (21b) and (25b) in Shipibo on their reflexive readings. One only needs to say that Lubukusu and Kannada have both null anaphors and overt anaphors, whereas Shipibo has only a null anaphor.

The need to revise the rule of ergative case assignment is more troubling, but some evidence that this needs to be revised anyway comes from Yawanawa, a related Panoan language. Camargo Souza (2020) shows that Yawanawa’s treatment of reflexive clauses is quite different from Shipibo’s. First, Yawanawa does not have a productive RV affix similar to *t*. Second, it does have an overt DP-(like) element *a-vi* that is used in reflexive sentences like (32b).

- (32) a. Shukuvenã yuina ui-veran-i.
 Shukuvena.ERG bird see-come-IPFV
 ‘Shukuvena is coming looking at birds.’
- b. Shukuvena **a-vi** ui-keran-i.
 Shukuvena.NOM 3-self see-come-IPFV
 ‘Shukuvena is coming looking at himself.’

So Yawanawa apparently does not have an RV construction, but only an overt DP anaphor. Crucially however, the subject of the reflexive clause in (32b) is not ergative in Yawanawa, any more than it is in Shipibo. This supports the idea that anaphoric objects—even overt ones—do not necessarily trigger ergative case on the subject.¹² The trick then is to state the ergative case rule for Panoan in such a way that the highest object being anaphoric prevents the subject from getting ergative even if a lower object is present, as in ditransitive RV clauses. (33) achieves this in an admittedly brute force way. The first clause on the right side of the biconditional is normal dependent case assignment (Baker 2015); the second clause puts in the requirement that the *closest* case competitor must have phi-features, which some anaphors arguably do not have at the crucial point in the derivation.¹³

¹² An anonymous reviewer asks “Is there any cross-linguistic evidence that ergative languages behave ‘funnily’ with respect to reflexives, or is this taken to be a family-specific phenomenon?” The answer is that there is some such evidence. For example, Deal (2010) shows that objects that contain a reflexive anaphor do not trigger ergative case on the subject in Nez Perce. Similarly, Aissen (1999) shows that in Tzotzil the special “agent focus” morphology that goes with A-bar extraction of an ergative subject is not found when the object is (or contains) a reflexive anaphor. How similar these cases are, and how general the effect is, awaits further investigation, however.

¹³ Note that a lack of phi-features in the syntax does not prevent an anaphor from being the goal of probing *v*, given that heads probe for D-features not phi-features in this version; see (6a) and note 1. What can be the goal for Agree and what can trigger dependent case can thus be parametrized a bit differently in this and similar cases. I leave open whether the details of (33) can be derived from more general principles, as is certainly desirable.

- (33) DP1 is assigned ergative case at the spell out of a CP domain if and only if there is another DP, DP2, in that domain such that DP1 c-commands DP2, *and the closest such DP has a full set of phi-features.*

Whether anaphors have phi-features intrinsically or not has been much debated. Some do not vary with the phi-features of the antecedent, and Shipibo’s—since it is always null—is one of these, making it plausible that the italicized condition in (33) does not hold. In contrast, anaphors in other languages are overtly marked as having the same phi-features as their antecedents, as seen in English *self*-forms and in the AGR part of AGR-*eene* in Lubukusu. Interestingly, Yawanawa is one of these: the *a* prefix of *avi* in (32b) is third person and changes if its antecedent is first or second person (Camargo Souza 2020). But even in cases where the anaphor bears phi-features at PF, those phi-features are arguably not semantically interpreted, given the range of bound variable interpretations the anaphor can have. An influential idea about this is Kratzer’s (2009) proposal that reflexive anaphors are born without phi-features but receive them from their antecedent at PF by a process of Feature Transmission. The pieces then fit together if we assume the following sequence of operations: (i) A-A *v* enters into Agree with the anaphoric DP in the narrow syntax, based on the D feature; (ii) dependent case is assigned at Spell-Out, the interface between syntax and PF, as in (33) (Baker 2015: ch. 6); (iii) Feature Transmission applies at PF—in time to feed vocabulary insertion, but too late for the features to be interpreted semantically (Kratzer 2009: 189), and therefore also too late to trigger ergative case. The needed derivational order is thus consistent with the literature on these matters, although the topic warrants more careful study in future work.

6 Concluding remarks

In this work, I have argued that an A-A reflexive voice construction is clearly attested in Lubukusu and more tentatively in Kannada, in accordance with the top-down predictions of the SR-inspired Agree-without-agreement framework. I have also used a closer look at Shipibo to argue that some languages which look superficially like they have valence-reducing RV constructions may in fact have A-A RV constructions in which the anaphoric object DP is not very noticeable because of its lack of phonological features and phi-features. If that is right, we will not be able to tell how common the A-A RV construction is typologically without doing detailed analytical work similar to what I have presented for Shipibo.

However, I hasten to clarify that I have no reason to believe that other forms of RV are ruled out by universal grammar, including the valence reduction forms. I have no cogent theoretical objections to either version. The passive-like version fits Mohawk well, for example. Reflexive clauses with the invariant verbal prefix *atat* are superficially intransitive in the sense that they cannot bear object agreement. Furthermore, Baker (1996: 200) shows that the sole overt argument of a reflexive verb can incorporate into the verb in Mohawk—evidence that it is projected as the direct internal argument of the reflexive verb.

- (34) a. K-askanek-s ne karistatsi au-**tate**-nohare-’.
 1SG.S-wish-IPFV NE stove OPT.N.SG.S-REFL-wash-PFV
 ‘I wish the stove would wash itself.’
- b. K-askanek-s au-**tate**-rist-ohare-’.

1SG.S-wish-IPFV OPT.N.SG.S-REFL-stove-wash-PFV
'I wish the stove would wash itself.'

Only the passive-like analysis captures this, since both Reinhart & Siloni's analysis and my A-A analysis say that 'stove' would count as an unincorporable external argument. Nor do I have any serious disagreement with Reinhart & Siloni's (2005) evidence that reflexive clauses in Hebrew are based on unergative verbs derived in the lexicon. I conclude, then, that the A-A analysis of reflexive voice proposed here should claim a piece of the typological pie, but not the whole pie. Just how much pie it can claim is a question for future research.

Abbreviations

A-A = Agree-without-agreement, ABS = absolutive, ACC = accusative, AnQ = Lubukusu anaphora questionnaire (<https://afnanaphproject.afnanaphdatabase.com/images/stories/downloads/casefiles/lubukusuagr1%5B1%5D.5.pdf>), APPL = applicative, ASP = aspect, AUX = auxiliary, B&CS = Baker and Camargo Souza 2020, CAUS = causative, CLX = class X (X a numeral), DAT = dative, DEF = definite, DIST = distributive, DS = different subject, EM = emphatic, ERG = ergative, EV = evidential, F = feminine, FV = final vowel, GER = gerund, INF = infinitive, IPFV = imperfective, LOC = locative, M = masculine, N = neuter, NOM = nominative, O = object, OS = object-to-subject switch-reference, OPT = optative, PASS = passive, PFV = perfective, PL = plural, POSS = possessive, PST = past, PV = Valenzuela 2003, RECIP = reciprocal, REFL = reflexive, RV = reflexive voice, S = subject, SG = singular, SR = switch-reference, SS = same subject, S&S = Safir and Sikuku (2011), TNS = tense.

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Competing interests

The author has no competing interests to declare.

References

References

- Aissen, Judith. 1999. Agent focus and inverse in Tzotzil. *Language* 75. 451-485.
- Arregi, Karlos & Hanink, Emily. 2021. Switch reference as index agreement. *Natural Language and Linguistic Theory*. <https://doi.org/10.1007/s11049-021-09521-2>
- Arregi, Karlos & Nevins, Andrew. 2012. *Morphotactics: Basque auxiliaries and the structure of spellout*. Oxford: Oxford University Press.
- Atlamaz, Ümit & Baker, Mark. 2018. On partial agreement and overt case. *Syntax* 21. 195-237.
- Baker, Mark. 1988. Theta theory and the syntax of applicatives in Chichewa. *Natural Language and Linguistic Theory* 6. 353-389.

- Baker, Mark. 1996. *The polysynthesis parameter*. New York: Oxford University Press.
- Baker, Mark. 2012. "Obliqueness" as a component of argument structure in Amharic. In Cuervo, Maria & Roberge, Yves (eds.), *The end of argument structure?*, 43-74. Bingley, UK: Emerald.
- Baker, Mark. 2014. On dependent ergative case (in Shipibo) and its derivation by phase. *Linguistic Inquiry* 45. 341-380.
- Baker, Mark. 2015. *Case: Its principles and its parameters*. Cambridge: Cambridge University Press.
- Baker, Mark & Camargo Souza, Livia. 2020. Agree without agreement: Switch-referent and reflexive voice in two Panoan languages. *Natural Language and Linguistic Theory* 38. 1053-1114.
- Balusu, Rahul. 2019. Anticausative or reflexive verbal marker and aspectual light verb interactions in Telugu. *Proceedings of the North Eastern Linguistics Society* 49.
- Bhatt, Rajesh & Walkow, Martin. 2012. Locating agreement in grammar: An argument from agreement in conjunctions. *Natural Language and Linguistic Theory* 31. 951-1013.
- Bruening, Benjamin. 2006. The morphosyntax and semantics of verbal reciprocals. Manuscript, University of Delaware.
- Camargo Souza, Livia. 2020. *Switch-reference as anaphora*. New Brunswick, NJ: Rutgers University dissertation.
- Chomsky, Noam. 2000. Minimalist inquiries: The framework. In Martin, R., Michaels, David & Uriagereka, Juan (eds.), *Step by step*, 89-155. Cambridge, MA., MIT Press.
- Chomsky, Noam. 2001. Derivation by phase. In Kenstowicz, Michael (ed.), *Ken Hale: A life in language*, 1-52. Cambridge, MA.: MIT Press.
- Clem, Emily. 2020. Cyclic expansion in Agree: Maximal projections as probes. Manuscript, University of California San Diego.
- Deal, Amy Rose. 2010. Ergative case and the transitive subject: A view from Nez Perce. *Natural Language and Linguistic Theory* 28. 73-120.
- Finer, Daniel. 1984. *The formal grammar of switch-reference*. Amherst, MA: University of Massachusetts dissertation.
- Finer, Daniel. 1985. The syntax of switch reference. *Linguistic Inquiry* 16(1). 35-55.
- Harley, Heidi. 2013. External arguments and the Mirror Principle: On the independence of Voice and v. *Lingua* 125. 34-57.
- Kratzer, Angelika. 2009. Making a pronoun: Fake indexicals as windows into the properties of pronouns. *Linguistic Inquiry* 40(2). 187-237.
- Lidz, Jeffery. 1995. Morphological reflexive marking: Evidence from Kannada. *Linguistic Inquiry* 26. 705-710.
- Lidz, Jeffery. 2001a. The argument structure of verbal reflexives. *Natural Language and Linguistic Theory* 19. 311-353.
- Lidz, Jeffery. 2001b. Condition R. *Linguistic Inquiry* 32(1). 123-140.
- Marantz, Alec. 1984. *On the nature of grammatical relations*. Cambridge, MA: MIT Press.
- Marušič, Franc, Nevins, Andrew & Badecker, William. 2015. The grammars of conjunction agreement in Slovenian. *Syntax* 18. 39-77.
- McGinnis, Martha. 2001. Variation in the phase structure of applicatives. *Linguistic Variation Yearbook* 1. 105-146.
- Myler, Neil. 2016. *Building and interpreting possession sentences*. Cambridge, MA: MIT Press.
- Pylkkänen, Liina. 2008. *Introducing arguments*. Cambridge, MA: MIT Press.
- Reinhart, Tanya. 1983. *Anaphora and semantic interpretation*. Chicago: University of Chicago Press.
- Reinhart, Tanya & Siloni, Tal. 2005. The lexicon-syntax parameter: Reflexivization and other arity operations. *Linguistic Inquiry* 36(3). 389-436.
- Safir, Ken. 2004. *The syntax of anaphora*. New York: Oxford University Press.
- Safir, Ken & Sikuku, Justin. 2011. Lubukusu anaphora sketch. Manuscript, Rutgers University.
<https://afranaphproject.afranaphdatabase.com/images/stories/downloads/casefiles/lubukusu-as-3.1.pdf>

- Sundaesan, Sandhya. 2012. *Context and (co)reference in syntax and its interfaces*. Stuttgart: University of Tromsø and University of Stuttgart dissertation.
- Sundaesan, Sandhya. 2016. Perspectival reflexivity and the *kol* morpheme. *Proceedings of Formal Approaches to South Asian Languages (FASAL)* 5. 123-142.
- Torres Bustamante, Teresa. 2011. Symmetrical objecthood in Panoan languages. *University of Pennsylvania Working Papers in Linguistics* 17. 225-234.
- Valenzuela, Pilar. 2003. *Transitivity in Shipibo-Konibo grammar*. Eugene, OR: University of Oregon dissertation.
- Wurmbrand, Susanne. 2003. *Infinitives: Restructuring and clause structure*. Berlin: Mouton de Gruyter.