# The Anaphor Agreement Effect as epiphenomenon\*

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# 1 Background

Most contemporary approaches to anaphora and agreement observe the existence of a restriction prohibiting full resolved agreement with reflexive anaphors that presents a crosslinguistically stable pattern known as the Anaphor Agreement Effect (the AAE, Rizzi 1990). The two main lines of thought attempt to provide a unified theory of the AAE whereby the AAE can be reduced to a single underlying mechanism explaining its existence in the majority of languages as well as providing enough flexibility to deal with the rare exceptions. Theories seeking to reduce reflexive binding to Agree such as Murugesan (2019; 2022), for instance, locate the observed variation with respect to the AAE in the particular structural configuration between the agreement probes on the anaphor and the clausal heads v and T on the one hand, and the anaphor's antecedent on the other. A competing line of analysis (Preminger 2019, Rudnev 2020) postulates the existence of particular structural layers inside reflexive anaphors that hide the anaphors' own agreement features from the clausal agreement probes in some languages but not in others.

Even though they are logically independent from one another, the following two questions are typically considered in tandem, and this chapter is no exception.

- is the Anaphor Agreement Effect a universal phenomenon?
- should reflexive binding be reduced to Agree?

Whatever answer is given to the first question, it is logically independent of the answers to the second question. Just as there are theories that view the AAE as a universal phenomenon and propose to derive it by reducing binding to Agree (Sundaresan 2016), there are also approaches that view the AAE as a universal phenomenon while rejecting the reductionist logic (Preminger

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2019). It is also possible to reject the universality of the AAE while attempting to reduce binding to Agree (Murugesan 2019; 2022).

The present chapter pursues the fourth logical possibility and revisits this debate rejecting the assumption that the existence of the AAE across languages is to be reduced to a single underlying source. It therefore rejects both the universality of the AAE and the reductionist approach. Taking the achievements of Preminger (2019) and Rudnev (2020) as a starting point, it shows that a significant portion of the AAE data can be explained if the internal structure of reflexives is examined more closely. I propose that the reason clausal heads do not normally agree with the agreement features of reflexive anaphors is to be found in the particular syntactic position of those features in the internal structure of reflexives, viz. that of possessors or other dependent elements inside the NP, which are not generally an agreement-controlling position. I also propose that in a different group of languages, the semblance of the AAE arises for case-related reasons so that case-discriminating agreement probes fail to agree with reflexive anaphors precisely because the anaphors do not appear in the case form required for agreement. Finally, I argue that in a third group of languages, typically treated as AAE violations, the AAE is not observed because there is no reason for it to obtain: in those languages, reflexive anaphors are not paradigm-defective, and do not have the form of possessed NPs, thus carrying their agreement features on their sleeve, which are therefore available for agreement. Because the AAE is not a deep principle of the grammar, no special mechanism is required to generate its violations, which, on this view, are no violations at all. The fourth group of languages, ones displaying dedicated reflexive agreement when the agreement controller is an anaphor, is not covered in this chapter but I am well aware of their existence.

Before I proceed, I would like to delimit the scope of the present chapter. One issue I wish to sidestep in its entirety is the formalization of the Binding Conditions; but for one brief moment in §4.2, I also wish to largely ignore the distinction between binding and coreference, since the AAE does not appear sensitive to it.

When considering feature covariance involved in agreement with reflexive anaphors, it appears desirable to distinguish two separate feature relationships: one relationship between the  $\varphi$ -features of an anaphor and the agreement probes (v, T, etc.), and the other between the  $\varphi$ -features of the anaphor and its antecedent. An aim of mine in this chapter is to show that this latter relationship is highly improbable to be Agree or agreement, however it is eventually formalized.

The distinction between the two feature relationships has mostly been neglected in the literature, Murugesan (2019; 2022) and related antecedent proposals (e.g. Tucker 2012) being notable exceptions. Yet, these works automatically assume that, even though the two relationships stated above are distinct and therefore established separately, the  $\varphi$ -features on the anaphor are automatically viewed as belonging to the anaphor and therefore accessible for agreement probes higher in the structure. This is not the view I am taking in this chapter.

In §2, I introduce the three crosslinguistically attested outcomes of attempted agreement with anaphors—unacceptability, 'trivial' agreement and full resolved agreement. *Contra* most of the existing work, I argue that full resolved agreement is much more widely available than previously assumed, significantly undermining any claims regarding the universality of the AAE. §3 focuses on the relationship between agreement probes and the  $\varphi$ -features of the anaphor. In it, I modify Preminger's (2019) encapsulation analysis to account for the behaviour of attempted agreement with reflexive anaphors in Abaza, Basque, Georgian, and many Northeast Caucasian languages. I then make a detour in §4 and argue that the second relationship, one between the

anaphor and its antecedent, is one of matching rather than agreement. In doing so, I provide several arguments against the analyses of anaphoric binding as Upwards Agree. I return to the issue of the differential outcome of attempted agreement with anaphors in §5, where I argue that many of the classical instances of the AAE in Dutch, English, Hindi, Icelandic and Italian actually follow from how case paradigms are structured in these languages. Finally, §6 summarizes the discussion.

# 2 The fate of attempted agreement with anaphors

Ever since Rizzi 1990, reflexive anaphors have been treated a something of a kind when it comes to appearing in agreement-controlling positions, which include the finite-clause subject position (in languages with agreement) and, in languages that have it, the agreement-controlling object position. This restriction has been dubbed the Anaphor Agreement Effect (AAE), and, as the empirical picture became more and more nuanced, its definitions have undergone several changes from the blanket ban, given in (1), on the occurrence of anaphors in agreement-controlling positions formulated by Rizzi (1990), to the significantly more relaxed definitions that allow anaphors in such positions as long as the accompanying agreement is not covarying. It is this last family of definitions, given in (2) and (3), that is of particular concern for the purposes of this chapter.

### (1) Anaphor Agreement Effect

Anaphors do not occur in syntactic positions construed with agreement. (Rizzi 1990: 26)

- (2) Anaphors do not occur in syntactic positions construed with verbal agreement, unless the agreement does not vary for  $\varphi$ -features. (Tucker 2012: 20)
- (3) Anaphors cannot directly trigger covarying  $\varphi$ -agreement which results in covarying  $\varphi$ morphology. (Sundaresan 2016: 99)

As convincingly argued by Preminger (2019), the correct characterization of the AAE must involve the notion of *trivial*—as opposed to *covarying*—agreement morphology on the head undergoing agreement with the anaphor.

(4) Trivial agreement  $\equiv$  non-covarying  $\varphi$ -agreement morphology

Trivial agreement, defined informally in (4) below, is, however, but one manifestation of the AAE across languages. Another one is full unacceptability of sentences involving an anaphor in an agreement-controlling position. I discuss these two manifestations of the AAE in some detail directly below.

### 2.1 Trivial agreement

To see how the AAE has been argued to result in trivial agreement, let us consider example (5) from Georgian, a South Caucasian language, involving the binding of a dative first-person reflexive in object position by a nominative first-person antecedent in subject position (Amiridze

2006: 204).1

(5) (me) [čem-s tav-s ] v-a-k-eb [Georgian] 1SG.NOM 1POSS.SG-DAT self-DAT 1A<sub>NOM</sub>.SG-PRV-praise-TS 'I praise myself.'

The reflexive pronoun čems tavs in (5) is fully specified for the  $\varphi$ -features of its antecedent as 1sG. Yet the finite verb vakeb 'praise(1SGSu, 3SGO)' is in the form reserved for singular first-person subjects and third-person objects, and there are no 1sG-features in the object-agreement slot. In fact, the verbal form is exactly the one that is seen in sentences with singular first-person subjects and third-person objects like (6a) below.

(6)(me) givi-s v-a-k-eb a. 1SG.NOM Givi-DAT 1A<sub>NOM</sub>.SG-PRV-praise-TS 'I praise Givi.' b. givi m-a-k-eb-s me Givi.NOM 1SG.DAT 1PDAT.SG-PRV-praise-TS-3A.SG 'Givi praises me.'

The direct object in (6a) is the male name, Givi, which is reflected by the absence of an object agreement slot on the verb, unlike the presence of both the subject and object agreement marking on the verb when the object is first (or second) person, as in (6b). Since at least Woolford 1999, the fact that the first-person reflexive anaphor does not trigger first-person object agreement on the verb has been attributed to the AAE, and the verb taken to surface with trivial, non-covarying agreement morphology (though see Amiridze 2006 for an opposing view).

The same agreement pattern is found in Abaza, a polysynthetic West Caucasian language. Like most polysynthetic languages, Abaza verbs cross-reference the event participants by virtue of dedicated prefixes. In Abaza, several reflexivization strategies coexist, as detailed by Arkadiev & Durneva (2019); here, I use the one that utilizes a dedicated reflexive pronoun and does not mark reflexivity on the verb. When a verb's internal argument is realized as a reflexive anaphor, the verb does not realize the anaphor's  $\varphi$ -features even though the anaphor is fully specified for  $\varphi$ -features. An example is given in (7).

(7)b-a-pšə p-qa 2SG.F.POSS-head 2SG.F.ABS-3SG.N.IO-look(IMP) (addressing a female) 'Look at yourself!'

*pqa*, is explicitly specified as second person singular and feminine.

The imperative verb bapša 'look' in (7) above carries two prefixes cross-referencing the event participants: a feminine second-person subject prefix, b-, reserved for the addressee of the imperative, and a neuter third-person oblique object prefix, -a-, even though the reflexive anaphor,

[Georgian]

[Abaza (Arkadiev & Durneva 2019: 35)]

<sup>&</sup>lt;sup>1</sup>I use the following abbreviations: 1 = First person, 2 = Second person, 3 = Third person, A = agent, ABS = absolutive, ACC = accusative, AOR = aorist, ART = article, AUX = auxiliary, COMP = complementizer, CVB = converb, DAT = dative, DECL = declarative, DEM = demonstrative, EMPH = emphatic, ERG = ergative, F = declarative, feminine, IMP = imperative, INF = infinitive, IO = indirect object, IPF = imperfective, IV = agreement class IV, LOC = locative, M = masculine, N = neuter, NEG = negative, NOM = nominative, OBL = oblique, P = patient, PFV = perfective, PL = plural, POSS = possessive, PRS = present, PRT = particle, PRV = preverb, PST = past, REFL = reflexive, SG = singular, SUBJ = subjunctive, TOP = topic, TS = thematic suffix.

Before proceeding, let us briefly consider the internal structure of the reflexive pronoun in Georgian and Abaza. In both languages, the reflexive anaphor is a complex nominal, more precisely a possessive structure, instantiating a possessed body part. In both languages, the reflexive anaphor is in fact the noun 'head' accompanied by possessive morphology. In Georgian, the possessor is realized as a dedicated possessive pronoun undergoing case concord with the head noun. In Abaza, on the other hand, the possessor is realized as possessor agreement marking.

### 2.2 Unacceptability

Unlike the languages discussed in the preceding subsection, which allowed what appears to be 'trivial' agreement with anaphors, some languages do not tolerate reflexive anaphors in positions normally construed with agreement. This is in fact what led Rizzi (1990) to formulate the Anaphor Agreement Effect in the first place. This ban on the occurrence of anaphors in agreeing positions has been argued to apply both within a single clause, as illustrated by the Italian examples (8) and (9) below, and across clause boundaries.

(8)	*A loro	interessan	o solo se stessi	[Italian (Rizzi 1990: 33–34)]
	to them	interest	only themselves	
(9)	*A voi	interessa	te solo voi stessi	

to you.PL interest only yourselves

The inability of reflexives to occur in embedded subject position of finite clauses, so that the anaphor's antecedent occurs in the superordinate clause, is illustrated in (10) for English, (11) for Italian, (12) for Dutch, and (13) for the Iranian language Digor Ossetic (data courtesy of David Erschler, p.c.).

(10)	*John thinks that [ himself is winning ]	
(11)	*Gianni vuole che [ se stesso scriva un libro ] Gianni wants that himself write a book	[Italian (Rizzi 1990: 36)]
(12)	*Jan zei dat [ zich(zelf) zou komen ] Jan said that himself would come ('Jan said that he would come.')	[Dutch]
(13)	*zon-un [me=χe ke ferredud-ten-ej ]woj know-PRS.1SG 1SG=REFL COMP make.mistake-PST.1SG it.OBL	[Digor]

'I know I was mistaken.'

The main question from the perspective of the AAE is why, if both 'trivial' agreement and unacceptability instantiate the same effect, *viz.* the AAE, the outcomes are so drastically different. I tackle this question last, in §5.

#### 2.3 Full resolved agreement

Murugesan (2019; 2022), Rudnev (2017; 2020) provide examples from three East Caucasian languages—Archi, Ingush and Avar—showing that the reflexive anaphors of those languages do not give rise to the AAE. On the contrary, reflexive anaphors in agreement-controlling positions trigger full agreement on the verb. To ascertain that Archi, Ingush and Avar are not exceptional,

family-wide, let us consider the agreement-controlling potential of reflexive anaphors in several other languages of the same family.

In example (14) from Godoberi (<Andic), the finite transitive verb *w-uk:u-da* 'caught' carries the masculine agreement marker *w*-; the same agreement marker can be seen inside the absolutive part of the complex case-copying reflexive, *ži-w-da*. No AAE is observed.

(14)	<sup>ç</sup> ali-di	inš:o-da	ži-w-da	w-uk:u-da	[Godoberi (Testelets & Toldova 1998: 45)]
	Ali-ere	G self.ERG-PI	кт self.ABS-M-	PRT M-catch-AUX	
	'Ali has	s caught him	self.'		

Other Andic languages display the same pattern of acceptable AAE violations, as illustrated by (15) from Bagvalal and (16) from Akhvakh.

(15)	ima-š:u-r	e=w=da	w=es:is:i	[Bagvalal (Lyutikova 2001: 624)]
	father-OBL-E 'Father prais	RG REFL=M=I ed himself.'	ЕМРН M=praised	
(16)	hudu-sw-e	ži-we-da	boвoda w-oc-ari	[Akhvakh (Creissels 2007: (24a))]
	DEM-OBL-ER	G REFL-M-EMI	PH much M-praise-PFV	
	'He praised h	nimself much.'		

Mehweb, a language from the Dargwa branch of the family, displays a similar pattern. As shown in (17), the transitive finite verb *witib* 'beat' agrees with the masculine absolutive reflexive *saw-ijal* 'himself'. No AAE is observed.

(17)	rasuj-ni	sa∢w>i-jal	w-it-ib	[Mehweb (Kozhukhar 2019: 274)]
	Rasul.OBL-ER	G <m>self-EMI</m>	PH M-beat:PFV-AOR	
	'Rasul beat hi	mself.'		

Other Dargwa languages, such as Sanzhi Dargwa and Chirag Dargwa, also display no AAE. I illustrate this with (18) from Sanzhi Dargwa and (19) from Chirag Dargwa.

(18)	madina-j	ca-r	r-ik:-ul	ca-r	[Sanzhi Dargwa (Forker 2020: 558)]
	Madina-DA	AT REFL-	-F F-want.IPF-	CVB AUX-F	
	'Madina lo	ves hers	elf.'		
(19)	aslan-ni	ce-j	daħmic'	al-li j-a <sup>ç</sup> l-le	[Chirag (Evstigneeva 2017: 610)]
	Aslan-DAT	REFL:A	BS-M mirror-I	DAT M-see:IPF-PRS	
	'Aslan sees	himself	in the mirror	,	

As shown by (20), the Lak isolate is no different from the other languages we have just considered with respect to allowing full resolved agreement with reflexive anaphors.

(20)	rasul-l-ul	cuwa	awt:-un-ni	[Lak (Gagliardi et al. 2014: 141)]
	Rasul-OBL-ER	G REFL.M.A		
	'Rasul beat hi	mself up.'		

Finally, verbs display covarying agreement with absolutive reflexives in the Tsezic languages, too, as illustrated by example (21) from Bezhta and (22) from Tsez. In both of these languages, just as in the other East Caucasian languages cited above, the verb agrees with its absolutive argument; the fact that that argument is a reflexive anaphor does not affect the basic agreement

pattern in any way.

- (21) aminati-l suratba-λa hini-l žü j-iqe-?-eš [Bezhta (Testelets 2016: (16a))] Aminat-DAT photo-LOC self-DAT self.ABS F-know-NEG-PST 'Aminat did not recognize herself on the photo.'
  (22) Hawa=baq'<sup>c</sup>oq-ä nelä ža r-aλ'ir-nč'u [Tsez (Polinsky 2015: 389)]
- Hawa=baq'<sup>S</sup>oq-ä nelä ža r-aλ'ir-nč'u weather-ERG REFL.ABS(IV) IV-deceive-PRS.NEG
  'Weather does not deceive.'

We have seen in this subsection a significant number of exceptions to the AAE coming from the Northeast Caucasian languages that result in neither default/trivial agreement or unacceptability. Instead, the reflexive anaphors in these languages present complete declension paradigms and are indistinguishable from other NPs in their ability to control full resolved agreement. Outside of the Northeast Caucasian language family, reflexive anaphors in Standard Gujarati (<Indo-Aryan) and Tamil (<Dravidian) have been shown to violate the AAE by controlling full resolved agreement (Murugesan 2019; 2022). The number of AAE-violating languages, then, significantly exceeds the 'handful' mentioned by Preminger (2019).

The key issue surrounding the AAE, then, concerns the presence of  $\varphi$ -features on reflexive anaphors and the inability of those features to trigger resolved, covarying agreement in a significant proportion of the world's languages. In those languages, attempted agreement with the anaphor has been argued to result either in unacceptability, as in English and Ossetic, or in 'trivial', non-covarying agreement, as in Georgian or Abaza. Setting the unacceptability question aside until §5, let us turn our attention to 'trivial' agreement and the relationship between an agreement probe and an anaphor's  $\varphi$ -features.

# 3 The anaphor's features and agreement probes

I know of three different ways of deriving third-person agreement with a  $\varphi$ -complete anaphor in the literature. The first approach attempts to reduce anaphoric binding to Agree and analyses reflexives as lacking valued  $\varphi$ -features. In combination with assumptions about derivational timing and the positioning of  $\varphi$ -probes relative to the anaphor, it captures 'trivial' agreement by having a  $\varphi$ -probe Agree with the anaphor before the anaphor has obtained the relevant  $\varphi$ -feature values from its antecedent (see Murugesan 2019; 2022 for a formalization and Preminger 2019, Rudnev 2020; 2021 for arguments against that analysis). Like most Agree-based approaches to binding, that approach faces numerous problems, some of which are discussed in some detail in §4.3 below, and I mostly ignore it in this chapter. The second approach is Preminger's (2019) *encapsulation* approach, discussed in detail directly below, and the third one analyses 'trivial agreement' with anaphors in some languages as full resolved agreement with the (body-part) noun heading such reflexives.

#### 3.1 The encapsulation approach

Taking the AAE to be a universal phenomenon, Preminger (2019) provides a novel analysis of the AAE designed to account for the existence of both the AAE-obeying languages like English, Abaza, Georgian or Ossetic, and the offenders like Tamil or the Northeast Caucasian languages from the previous section. The gist of the proposal is that anaphors are structurally complex

expressions carrying their own sets of  $\varphi$ -features that are then encapsulated—and, consequently, hidden from the  $\varphi$ -probe—due to extra layers of structure in (23). Preminger's (2019) proposal is buttressed by a typological study of syncretism and containment patterns inside anaphoric expressions (Middleton 2018).





Because the anaphor's  $\varphi$ -features are hidden from the agreement probes, the agreement probes can only reach the Anaph part of the structure and must therefore remain unvalued. And because 'failed agreement' is a grammatically available option (Preminger 2014), the 'trivial agreement' manifestation of the AAE follows in languages like Basque and Georgian, according to Preminger (2019), from the derivationally unvalued agreement probes receiving default values. Anaphors in languages that do not display the AAE are argued to still have the general structure in (23) but Anaph<sup>0</sup> is claimed exceptionally not to instantiate a barrier for probing so that the agreement probe can reach the features carried by Phi<sup>0</sup>. This is the approach taken by Rudnev (2020) with a view to showing that Preminger's (2019) encapsulation analysis is in principle compatible with the containment patterns and distribution of various classes of anaphoric elements in AAE-violating languages like Avar.

A major criticism of the encapsulation view as implemented by Preminger (2019) has been the lack of a principled reason for encapsulation other than the statement that Anaph<sup>0</sup> simply happens to be a phase head in the overwhelming majority of languages (Murugesan 2022, Reuland 2020). Reuland (2020) further observes that the decomposition of various reflexive anaphors from a variety of the world's languages does not provide an easy fit with the PhiP and AnaphP structural layers proposed by Preminger (2019). Moreover, the sheer number of exceptions to the AAE, some of which are cited in the previous section, indicates that a more systematic explanation is in order.

### 3.2 Encapsulation of a different kind

My analysis of reflexives that are visibly decomposable into a nominal part and its dependent is the analysis above *modulo* two assumptions. Firstly, I do not assume a dedicated structural layer for anaphors (AnaphP), primarily because I do not assume a strict isomorphism between syntactic category and semantic function: the fact that a syntactic object is interpreted as a reflexive anaphor does not entail that its syntactic category is AnaphP. Instead, I propose the maximally simple analysis of these anaphors as regular NPs containing a possessor. Secondly, I do not assume that what looks like 'trivial' 3SG agreement in such cases is the result of 'failed agreement' with the anaphor. Instead, I argue that the purportedly 'trivial' 3SG agreement is in fact full resolved agreement with an inanimate body-part NP containing a possessor, as schematized in (24) below.<sup>2</sup> Whenever an agreement probe,  $\varphi$ :\_ in (24), probes in its c-command domain for a potential goal, the first features it comes across are those of the bold-faced nominal head rather than those of the possessor. This is functionally equivalent to those  $\varphi$ -features being encapsulated, but, unlike Preminger (2019), I do not claim that the encapsulated [ Anaph [ Phi ]] structure universally characterizes reflexive anaphors in all languages; rather, encapsulation is at issue only when the synchronic language-specific considerations warrant it.<sup>3</sup>



That N's features are indeed closer to a higher probe than its possessor's is a familiar generalization that manifests itself in the inability of the possessor to control agreement, as shown in (25), or to be targeted for A-movement to the exclusion of the possessed NP, as in (26).<sup>4</sup>

- (25) **My** *daughter is*/\***am** coming.
- (26) a. They are reading John's book.
  - b. \*John is being read [*t*'s book].
  - c. [John's book] is being read *t*.

It goes without saying that the fact that 'failed agreement' is not implicated in this particular corner of the grammar and does not underlie the seemingly non-covarying agreement does not undermine Preminger's (2014) argument for its existence. I briefly return to default agreement as 'failed agreement' in §5 below.

Even though Preminger's (2019) encapsulation approach and my own are both compatible with the observed data, there does appear to be a way of discriminating between them. They

<sup>&</sup>lt;sup>2</sup>This is known as 'protected anaphora' in the literature (Tucker 2012, Sundaresan 2016), a term I explicitly reject in the present chapter, at least on the interpretation that it is direct agreement that the anaphor requires protection from. This term presupposes that there is something so inherently 'wrong' with agreement with anaphors that something must be done to prevent it. There is no reason, either conceptual or empirical, to expect that any such constraint should exist.

<sup>&</sup>lt;sup>3</sup>Note that I do not adopt the DP hypothesis and take the noun to be the head of nominal expressions. Still, the same observation regarding the closer position of N's agreement features compared to the possessor's can easily be recast within the DP hypothesis.

<sup>&</sup>lt;sup>4</sup>This fact is somewhat obscured by additional factors operative in English and many other languages. In particular, the inability of possessors to be targeted for agreement in English or Basque could be explained by the casediscriminating properties of agreement probes in the relevant languages: because genitive NPs never trigger  $\varphi$ -agreement, it would be unreasonable to expect them to control agreement in (25). Yet, there is every reason to maintain that minimality considerations are at play here, since even when case discrimination is removed from the equation altogether, as we shall see shortly for Abaza, the agreement pattern remains exactly the same.

make diverging predictions for agreement patterns in object-agreement languages with bodypart reflexives if the gender/noun class of the possessed body part (say, F) is different from the noun-class morphology involved in default agreement (say, M or N). Attempted agreement with reflexive anaphors, would, *ceteris paribus*, be predicted to surface as M (or N) on the encapsulation approach and as F on my own. While I cannot test this prediction at present, it does appear to allow for the two theories to be compared.

I now discuss several case studies — from Abaza, Basque and Georgian — where reflexive anaphors synchronically instantiate possessed body-part NPs and therefore warrant an encapsulation analysis. In all three case studies I compare the agreement pattern characterizing agreement with reflexive anaphors and the agreement pattern with regular (non-body-part) NPs containing a possessor.

#### 3.2.1 Abaza

The first case study is from Abaza, and the relevant example is (27), repeated from above. In this example, the reflexive anaphor pqa 'your head' is the indirect applicative argument of the verb, cross-referenced by a dedicated third-person singular morpheme on the verb, -a-. Because the verb is in the imperative mood, the external argument is not overtly expressed, as is common crosslinguistically, but is again indexed as an absolutive verbal prefix, b-.

[Abaza (Arkadiev & Durneva 2019: 35)]

(27)	p-qa	b-a-pšə
	2SG.F.POSS-	head 2SG.F.ABS-3SG.N.IO-look(IMP)
	(addressing	a female) 'Look at yourself!'

For the purposes of this chapter, I adopt the basic analysis of West Caucasian clause structure developed by Ershova (2019) for Circassian and assume that the unpronounced external argument is introduced by v and gets its absolutive case from T, while the oblique argument is introduced in the specifier of Appl, a high applicative head. I also assume that both T and Appl are agreement probes carrying unvalued  $\varphi$ -features. I take no stand on the syntax of Abaza imperative clauses, and simply conflate the mood information with T in the representation in (28) below. A further simplification concerns the head-complement order, which, for the purposes of legibility, I notate as head-initial.



When the Appl head probes to get its  $\varphi$ -features valued against the applicative argument in its specifier, the first features the probe encounters will be the 3SG, N features of the head noun *head*, and it is this NP that the probe will agree with. That this restriction is due to structural distance rather than external factors such as case discrimination can be deduced from the overall workings of adnominal possession in Abaza. Unlike example (27), where the presence of a possessor is signalled indirectly via possessor agreement, the adnominal possessor in example (29) is overtly realized.

(29) aphas l-qas'a woman(F) 3SG.F.POSS-man 'the woman's husband'

[Abaza (O'Herin 2002: 50)]

Now, Abaza does not case-mark either the core arguments or the possessors (O'Herin 2002, Arkadiev 2020), which means that the possessor (*aphas* 'the woman' in (29)) and the possessed head noun (*qas'a* 'man' in (29)) are case identical, and both are eligible agreement controllers. Yet, both in the anaphor agreement example (27) above and agreement with non-anaphoric possessed NPs it is the head noun rather than its possessor that controls agreement.

In order to ascertain that agreement with reflexive anaphors differs in no way from agreement with non-anaphoric possessed NPs let us consider example (30) from Arkadiev (2020: (61e)) containing a three-place predicate that agrees with its three arguments: the ergative external argument 'I', the absolutive internal argument 'that' and the applicative argument *han* 'our mother'. The applicative argument, in turn, contains a possessor, and the possessor and the head noun carry distinct sets of  $\varphi$ -features. Because the verb cross-references the applicative argument as third person singular feminine, the features of the head noun, rather than first person plural, we can safely conclude that possessors do not trigger agreement on the verb. Agreement with reflexive anaphors, then, is indeed in no way special and is fully in line with the overall agreement patterns characteristic of the language.

(30) h-an j-l-á-s-h<sup>w</sup>-əj-t [Abaza] 1PL:POSS-mum 3SG.N.ABS-3SG.F.IO-DAT-1SG.ERG-say-PRS-DECL 'I told our mother that.' I conclude that attempted agreement with body-part reflexive anaphors in Abaza does not result in 'failed agreement', and the resulting third-person neuter agreement morphology is the reflex of full resolved agreement with the possessed third-person neuter NP. In a way, then, Abaza instantiates a violation of the AAE.

#### 3.2.2 Basque

For Basque, I adopt Preminger's (2019) own analysis, modifying it slightly. For sentence (31) from Preminger (2019: (40a)) containing a third-person body-part reflexive anaphor with a second-person plural possessor, Preminger (2019) proposes the structure in (32).

(31)Ø[ zeuen buru-a ] saldu d-Ø-u-zue[Basque]pro.2PL.ERG2PL.POSS head-ART(ABS) sold3-SG-AUX-2PL'You gave yourselves away.'(lit.: 'You have sold your head.')

The finite auxiliary *duzue* in (31) carries third-person singular object agreement morphology even though the absolutive reflexive anaphor *zeuen burua* appears to be fully specified for  $\varphi$ features as 2PL. The structure in (32) equates the possessor with the PhiP of (23) and the entire absolutive possessed body part as the AnaphP of (23), and derives the third-person 'trivial' agreement from encapsulation.



I modify the structure above, as mentioned at the beginning of this section, by eliminating the assumption about the universality of AnaphP and PhiP as constitutive structural layers of reflexive anaphors and dispensing with the DP hypothesis. As example (33) demonstrates, Preminger's (2019) encapsulation approach in (32) can easily be brought in line with the generalized

agreement structure for body-part reflexive anaphors in (24).



Ignoring subject agreement, in (33), the  $\varphi$ -probe in the T-domain responsible for object agreement probes in its c-command domain and finds the closest absolutive goal in the form of the possessed NP, establishing a featural dependency with it. And, just as we have seen above for Abaza, possessors inside regular non-reflexive NPs also do not trigger agreement on the verb, which is shown in (34).

[Basque (Holguín 2007: 36)]

(34) Niri zure oinetakoak gustatzen zaizkit.
1SG.DAT your shoes.ABS like.IPF AUX.3PL.A/1SG
'I like your shoes.'

The finite verb *zaizkit* 'like' in (34) agrees with the first-person singular dative subject *niri* 'me' and the third-person plural absolutive object NP (*zure*) oinetakoak '(your) shoes', ignoring the second-person singular possessor inside that NP. There is thus no substantial difference between the agreement pattern in (34) and (31), from which I conclude that attempted anaphoric agreement in Basque is not 'trivial' in the sense of §2.

### 3.2.3 Georgian

For Georgian, I essentially adopt the conclusion of Amiridze (2006: §6.4) that, when they attempt agreement with reflexive anaphors, Georgian  $\varphi$ -agreement probes in fact receive the  $\varphi$ feature values of the reflexive anaphor's head noun (*tav*- 'head'). Third-person object agreement, then, is not 'trivial' or 'default' agreement. Example (35), familiar from above, can now receive the same analysis as just sketched for Abaza and Basque, *modulo* some inevitable languagespecific differences. (35) (me) [čem-s tav-s ]v-a-k-eb 1SG.NOM 1POSS.SG-DAT head-DAT 1A<sub>NOM</sub>.SG-PRV-praise-TS 'I praise myself.'

Before concluding this subsection, I would like to demonstrate, as I have done for Abaza and Basque, that Georgian possessors also do not trigger agreement on the verb. The intransitive example (36) shows that possessors cannot control subject agreement, since the finite verb q'eps agrees with the head noun 'dog', ignoring the first-person features of the possessor.

[Georgian]

(36) čemi dzayli q'ep-s / \*v-q'ep [Georgian (David Erschler, p.c.)] my.NOM dog.NOM bark.PRS-3SG 1SG-bark.PRS 'My dog barks.'

Example (37), adapted from Amiridze (2006: 206), shows that the very same possessed body-part NP as the one serving as the reflexive anaphor in (35) triggers an identical agreement pattern.

(37) (me) sark'e-ši šen-s tav-s v-xed-av [Georgian] 1SG.NOM mirror-in 2POSS.SG-DAT head-DAT 1A<sub>NOM</sub>.SG-see-TS 'I see your head in the mirror.'

We have seen so far in this section that, firstly, there is no reason for the agreement probes to agree with the  $\varphi$ -features carried by reflexive anaphors in Abaza, Basque and Georgian since those features are not eligible agreement goals in the first place, and, secondly, that there is no reason to assume that attempted agreement with anaphors is substantially different from regular resolved agreement with (inanimate) NPs in these languages. Now, if body-part reflexive anaphors have the syntax of regular possessed NPs in the relevant languages, we expect to occasionally find such possessed body-part reflexive anaphors in the plural, given the ability of most count nouns to be pluralized, with the resulting plural agreement. These cases are briefly discussed in the next subsection.

### 3.2.4 Complications: resolved number agreement

Body-part reflexive anaphors in Basque, Koryak and Even, and probably many other languages, can indeed be pluralized and, when plural, trigger plural agreement (see Murugesan 2019, Preminger 2019 for Basque, Abramovitz & Bassi 2020 for Koryak, and Buzanov 2022 for Even). One such example is (38), taken in slightly simplified form from Murugesan (2019: 166).

(38) Ø [ zeuen buru-**ak** ] saldu d-\*(**it**)-u-zue [Basque] pro.2PL.ERG 2PL.POSS head-ART.**PL**(ABS) sold 3-**PL**-AUX-2.PL 'Y'all gave yourselves away.'

As (38) shows, the absolutive body-part reflexive anaphor *zeuen buruak* 'your heads' appears in the plural, in which case it obligatorily triggers plural object agreement on the finite auxiliary *dituzue*. Koryak and Even display similar patterns, and in all cases the  $\varphi$ -feature matching only involves number features (singular, dual or plural, depending on the language) and never person features. According to Murugesan (2019), the very existence of such patterns is incompatible with the encapsulation view: if probing cannot penetrate past AnaphP, it is unclear how plural agreement should obtain and why singular ('default', or 'trivial') agreement is not an available

option.

Two responses have been offered in the literature to the challenge to the encapsulation hypothesis formulated above. On the one hand, Preminger (2019) observes that '[t]he number features expressed on *buru*, then, are quite clearly not the same entity as the number features associated with the binder index' (Preminger 2019: 21), and proposes to accommodate the observation in (38) by appealing to the notion of 'dependent plurality' without providing a detailed implementation. On the other hand, Abramovitz & Bassi (2020) reformulate the AAE in such a way as for it to apply exclusively to person features, and develop a modification of the encapsulation analysis that relies on a number of elaborate assumptions regarding the internal structure of the noun phrase.

Now, Buzanov (2022) identifies multiple problems for both of the workarounds briefly described above, arguing, firstly, that dependent plurality could not be at play in (38), *contra* Preminger (2019), and, secondly, that the relativized AAE analysis of Abramovitz & Bassi (2020) fails to extend to other instances of agreement with reflexive anaphors in a range of languages such as (NP-internal) reflexive possessive agreement. Buzanov (2022) further observes that the Basque, Koryak and Even facts follow straightforwardly from the analysis of possessed body-part reflexive anaphors as regular NPs. On this analysis, the Basque example (38) can be analysed as in (39).



Again ignoring subject agreement, in (39), the  $\varphi$ -probe on the auxiliary responsible for object agreement probes in its c-command domain and finds the closest absolutive goal in the form of the plural possessed NP, establishing a featural dependency with it. And again for reasons of minimality, the features of the possessor do not enter into play.

#### 3.3 Other nominal dependents

In many languages, the anaphor's  $\varphi$ -features will likewise be independently encapsulated by virtue of occupying a non-agreement-controlling position within the anaphor's internal structure. Let us briefly consider one case, English.

When they inflect for  $\varphi$ -features, English *-self* reflexives display two distinct patterns with respect to the pronunciation of the  $\varphi$ -feature bundle. In first and second persons of both singular and plural parts of the paradigm, the anaphor's  $\varphi$ -features are realized as pronominal possessors (e.g. *myself, ourselves* etc.). Third-person forms, on the other hand, include objective, rather than possessive, pronominal morphology (*himself* and not *\*hisself* etc.). It is a fact of English that neither possessive nor objective NPs can control predicate-argument agreement. We can tentatively assume that English *-self* reflexives have the same structure as their Abaza, Basque and Georgian counterparts, whereby the reflexive NP is headed by *self*. Where it is not bound by the Binding Conditions, the presumably defective *self* can then control third-person singular agreement, as at least in the subset of 'exempt anaphor' contexts. One such context is illustrated in (40) taken from the BBC drama *Bloodlands* that is set in Belfast, Northern Ireland.

(40) How's yourself?

#### [Bloodlands: S02E01]

The use of *-self* reflexives in subject position outside the context of reflexivization is a characteristic feature of Hiberno-English; in (40) above, for instance, the second-person exempt anaphor *yourself* appears in Spec,TP and triggers third-person singular agreement on the copula even though the anaphor itself is also specified for second person.

That *self* has the head status within the decomposition of *-self* reflexives is also witnessed by the fact of it being able to be modified by adjectives, as the two naturally occurring examples below make clear:

- (41) a. HONORED MADAM: The writer understands that **your good self** is a member of the Harden committee. (on Government Operations 1953: 1251)
  - b. Next time, he'll behave **his two-faced self**. (Ahn & Kalin 2018: (24a))

Naturally, additional factors such as grammaticalization are at play in determining the distribution of English *-self* reflexives, but the conclusion still stands: English *-self* reflexives can be analysed on a par with their counterparts in Abaza, Basque and Georgian as (inalienably) possessed NPs.

### 3.4 'AAE-violating' Northeast Caucasian languages

Of the three outcomes for attempted agreement with reflexive anaphors, I have provided an analysis for two taking as the starting point the locus of  $\varphi$ -features inside the anaphor and the language-specific ability of that position to be targeted for  $\varphi$ -agreement. The relativized encapsulation approach developed in this section still raises the question of how to derive full resolved agreement in 'AAE-violating' languages such as Avar, Godoberi or Bezhta from §2.3.<sup>5</sup>

My claim is that no special treatment is required: in these languages, reflexive anaphors simply do not have the syntax of possession structures. Rather, they are morphosyntactically

<sup>&</sup>lt;sup>5</sup>Of ca. 30 languages in the family, only a handful do not display predicate-argument agreement, and hence provide no insight into the AAE. The remaining languages, however, allow full resolved agreement with reflexive anaphors and thus instantiate counterexamples to the AAE.

similar to other pronominal elements such as demonstrative pronouns, and there is no reason to assume additional structural layers encapsulating the anaphors'  $\varphi$ -features. Their declension paradigms have no gaps, and, since the languages in question display ergative-absolutive alignment in both case and agreement, absolutive reflexive anaphors are eligible agreement controllers. Case-discriminating  $\varphi$ -probes on functional heads such as v, T as well as on some adpositions can agree with such absolutive anaphors just like with any other absolutive NP.

### 3.5 Summary

The focus of this section has been the relation between a reflexive anaphor and a  $\varphi$ -probe targeting it for agreement. In this section, we have seen that a subset of agreement phenomena traditionally viewed as being covered by the AAE—*viz*. the purportedly non-covarying 'trivial' or 'default' agreement with  $\varphi$ -complete reflexive anaphors—can be fruitfully analysed as instances of regular,  $\varphi$ -covarying agreement with possessed body-part NPs. This analysis is functionally equivalent to Preminger's (2019) encapsulation hypothesis, since the  $\varphi$ -features carried by the anaphor are contained inside the adnominal possessor, but with better empirical coverage. In particular, this analysis requires no stipulations or additional machinery to deal with plural body-part reflexives obligatorily triggering plural agreement. Dispensing with the encapsulation view where the reflexive anaphor's internal structure does not warrant postulating the additional layers of structure, on the other hand, accounts for the existence of purported 'violations' of the AAE in, among others, Northeast Caucasian.

Having discussed the relation between  $\varphi$ -probes and anaphor-internal  $\varphi$ -features, we are now in a position to consider the second relation, *viz.* the one between the anaphor-internal  $\varphi$ -features and the anaphor's antecedent.

# 4 Anaphors and antecedents: Matching, not agreement

We have established why agreement probes do not agree with the  $\varphi$ -features of reflexive anaphors in Abaza, Basque, Georgian and many other languages. This leaves the question of the provenance of those  $\varphi$ -features on the anaphors unresolved. Two options have been proposed in the literature: (i)  $\varphi$ -features on reflexives are valued from the get-go (Preminger 2019, Rudnev 2020); (ii)  $\varphi$ -features on originally  $\varphi$ -defective reflexives are inherited from the reflexives' antecedents (via Agree, Heinat 2006, Rooryck & Vanden Wyngaerd 2011, Reuland 2011, among many others). Intermediate positions have also been defended, see Sundaresan 2020 for details. In this section, I provide several arguments against the  $\varphi$ -deficiency approaches that utilize Agree to effect a feature transmission operation from the antecedent onto the reflexive anaphor.

For the purposes of exposition, it is instructive to continue the discussion where we left it, which is possessor-containing body-part reflexives in Abaza, Basque and Georgian. Because reflexives in these languages are effectively possessed noun phrases and the  $\varphi$ -features inside reflexives are those of the possessor of the possessed body part, I argue that these reflexives, or possessed body-part NPs, resemble the possessors in the so-called 'fake-indexical' contexts (Kratzer 2009), and the question of the provenance of  $\varphi$ -features on the anaphors' possessors in these languages effectively reduces to the provenance of  $\varphi$ -features on 'fake indexicals' in languages like English.

### 4.1 Body-part reflexives as 'fake indexicals'?

'Fake indexicals' are instances where pronominal elements with overt 1st and 2nd person features receive covarying interpretations in such a way as for their person features not to be interpreted as referring to the actual speech act participants. This is illustrated by example (42), which is ambiguous between a covarying, bound-variable-like reading, semi-formally represented in (42a), and a properly indexical reading, represented in (42b), with the first-person possessor *my* referring to the speaker of the utterance.

- (42) Only I like my cooking.
  - a. only I  $\lambda x$ . x likes x's cooking
  - b. only I  $\lambda x$ . x likes my cooking

A prominent approach to the semantics of pronominal expressions treats the two interpretations as arising from distinct syntactic structures and two distinct kinds of pronouns —  $\varphi$ -deficient *minimal* pronouns and regular,  $\varphi$ -complete, ones (Kratzer 2009). Theories such as Kratzer (2009) postulate a feature transmission operation from the antecedent to the possessor under semantic binding to derive the uninterpretability of first-person (or any person) features on the possessor in (42a) and view the original presence and interpretability of person features on the possessor in (42b) as uncontroversial. After all, it is only in (42b) that those features actually refer to the speaker of the utterance.

Now, it has been observed in the literature that analysing feature transmission from the antecedent to the possessor via a syntactic operation such as Agree entails the postulation of unconventional syntactic operations, or, put differently, of purportedly syntactic operations that are not constrained by the same constraints constraining other feature-transmission operations (Preminger 2019, Bruening 2021, Bassi & Longenbaugh 2018). This can already be seen from the steps necessary to derive 'agreement' between *I* and the  $\varphi$ -deficient possessor in (42a). In order for the possessor's features to be valued against the subject, they must ignore the structurally closer features of the possessed NP (see the preceding section for argumentation). In a similar vein, in ditransitive clauses, the possessor's features must see past the possessed NP's ones *and* past the indirect object's. Furthermore, English possessors can occur inside other possessors, which entails the ability of the feature-transmission operation to 'look past' the intervening material, as shown below.

(43) Only I have read my friend's husband's book.

To derive  $\varphi$ -feature transmission in (43) from the subject onto the possessor, and, consequently, the covariance reading of the indexical possessor, one would require postulating an Agree dependency between *I*, the subject, and *my*, a possessor inside another possessor that is embedded inside yet another possessor. That dependency would somehow have to see past the intervening features on *friend*, *husband* and *book*. This is not a run-of-the-mill property of syntactic operations and a clear violation of minimality.

Minimality effects typically characterizing syntactic operations are not the only constraint that must be violated for 'fake indexicals' to inherit  $\varphi$ -features from their antecedents, the other constraints being locality and c-command. As the following examples from Bassi & Longenbaugh 2018 demonstrate, covariance, or bound-variable interpretations, obtain in the absence of conditions that are prerequisite for Agree to apply successfully.

(44) Only the woman who is dating *ME* says I make her happy.

In (44) above, there can be no syntactic relationship holding between the first-person direct object, *me*, inside a relative clause modifying the sentential subject, *the woman who is dating me*, and the embedded first-person subject, *I*, and yet the covariance reading is available. Firstly, *me* does not c-command *I*, nor does *I* c-command *me* at any stage of the syntactic derivation. Secondly, positing an exceptional agreement relation between *me* and *I* to derive the covariation reading of (44) creates a locality issue and a minimality issue, just as (43) above. As regards locality, *me* and *I* are separated by multiple clause boundaries. As regards minimality, irrespective of whether it is *me* or *I* that is  $\varphi$ -defective and is therefore the probe, there is always a closer valued goal available.

The same reasoning applies to (45), but this time one indexical occurs inside a finite adjunct island, and cannot establish a syntactic dependency with the other.

(45) Only if *I* misbehave does the teacher call **my** parents.

Because the covariance readings of indexicals obtain in the absence of structural relations required for establishing a syntactic dependency (such as Agree), a separate, non-syntactic, mechanism is required of ensuring that  $\varphi$ -features originally present on anaphoric or pronominal expressions are not interpreted indexically. Because this mechanism can apply both in the absence and in the presence of c-command, the minimal pronoun approach to the  $\varphi$ -features of possessors inside possessed NPs is redundant. I conclude that there is no syntactic featural relationship established by Agree between the possessor of body-part reflexive anaphors and the anaphors' antecedents.

### 4.2 Against reductionism: the AAE and coreference

Agree-based reductionist theories of anaphora are almost unanimous in claiming that the featural Agree relationship between the anaphor and its antecedent in the syntax corresponds to a semantic binding relationship in the semantics because, as Preminger (2019: 18) puts it, 'anaphors are, by definition, bound' (Zubkov 2018, attempting to reduce anaphora to Multiple Agree, is a rare exception). A subset of those reductionist theories claims explicitly that it is  $\varphi$ -feature valuation that establishes that binding dependency, while another subset postulates a dedicated referential feature, on which more below. These theories also claim explicitly that there is no syntactic Agree relation involved in (accidental) coreference whereby two NPs just happen to refer to the same entity, as in (46), where the semantic relation made salient by the context is one of John-hating, rather than self-hating, and John merely happens to be involved in that relation of John-hating.

(46) Everyone hates John. Even John hates John.

If only binding is established syntactically via  $\varphi$ -agreement and coreference is not, reductionist theories relying of  $\varphi$ -agreement predict that non-bound, coreferential reflexives in agreeing positions should not give rise to the AAE. Reflexives are known to refer, and to corefer, and, as demonstrated by Bruening (2021), these coreference relations do not exempt them from the Binding Conditions. In other words, reflexives and pronominals are sensitive to Binding Conditions A and B even when coreferential with, rather than bound by, their antecedents, as illustrated by examples (47) and (48) from Bruening (2021: 422).

- (47) Mary did something really terrible. Everyone hates her now. Even *she* hates herself.
- (48) Samantha<sub>1</sub> blames herself<sub>1</sub>/\*her<sub>1</sub>. Her boss does too, and is likely to fire her.

While English, by virtue of lacking object agreement, does not allow us to test the prediction formulated above, other languages that have already featured in this chapter do. Let us consider the discourse in (49) in Georgian, which is analogous to (47) from English. Because the relevant interpretation is one of me-praising ( $\lambda x.x$  praises me) and not of self-praising ( $\lambda x.x$  praises x), there should be no syntactic featural dependency established between the anaphor and its antecedent, and, since it is this syntactic featural dependency that gives rise to the AAE, the AAE is wrongly predicted not to arise in (49).

(49)a. me dyes k'argi bich'i var. [Georgian (D. Erschler, p.c.)] I today good boy am 'I did well today.' q'vela m-a-k-eb-s. b. all.NOM 1PDAT.SG-PRV-praise-TS-3A.SG 'Everyone is praising me.' v-a-k-eb. c. me=c čem-s tav-s 1SG.NOM=PRT 1POSS.SG-DAT self-DAT 1A<sub>NOM</sub>.SG-PRV-praise-TS 'Even I am praising myself.'

Of course, it is possible to adopt the possessed NP structure for Georgian reflexives and still think that binding reduces to Agree, in which case a number of additional assumptions are required to allow for something like 'vehicle change' between coreference and binding, or binding, with the AAE as a consequence, being coerced into a coreferential interpretation.

### 4.3 Against reductionism: More on minimality

As mentioned at the beginning of this section, a widely held assumption in the literature is that reflexives, by virtue of being inherently  $\varphi$ -defective, receive their  $\varphi$ -features from their antecedents via Agree (Rooryck & Vanden Wyngaerd 2011, Hicks 2009, Kratzer 2009, Murugesan 2019). Two main groups of approaches of this kind have been proposed over the recent years that mainly differ with respect to the directionality of Agree. One group of approaches (Hicks 2009, Kratzer 2009, Sundaresan 2013) argues that, since the (feature-complete) antecedent normally c-commands the (feature-defective) anaphor, Agree must proceed upwards, valuing the anaphor's unvalued features against the matching valued features on the antecedent, as illustrated for  $\varphi$ -features in (50) below.

(50) The Queen<sub> $[\varphi:F,SG]</sub> invited herself<sub><math>[\varphi:]</sub>$  to tea.</sub></sub>

The other group of approaches preserves the original definition of Agree whereby feature-defective probes must c-command feature-complete goals for a syntactic dependency to be established (Heinat 2006, Reuland 2011, Rooryck & Vanden Wyngaerd 2011), and these approaches must appeal to movement (either reflexivizing head movement, as in Reuland 2011, or the phrasal movement of the anaphor to a position c-commanding the anaphor's antecedent, as in Rooryck & Vanden Wyngaerd 2011). Since both of these approaches face insurmountable difficulties with respect to reflexive-containing coordinations because coordinate structures are impervious to either phrasal movement or head movement, I do not discuss them further, and provide an argument against anaphor binding as Upward Agree. I should note that I see no harm in reductionism *per se* but only object to some of the existing implementations of the reductionist programme. A successful reductionist account of reflexive binding to Agree, i.e. the same operation as the one underlying argument-predicate agreement, should be fully in line with what we know about agreement and its interactions with directionality, locality and minimality.<sup>6</sup> Such accounts do exist, as demonstrated by the analysis of reflexivization in Russian in terms of Multiple Agree due to Zubkov (2018) and Reuland & Zubkov (2022), and the minimality-based argument below does not apply to them.

Rather than capitalize on the  $\varphi$ -deficiency of reflexive anaphors, some theories purporting to reduce anaphoric binding to an application of Agree posit dedicated formal features, alongside  $\varphi$ -features, as a formal way of encoding the binding dependency between an operator and a variable (Adger & Ramchand 2005, Hicks 2009, Sundaresan 2013). It should be noted that positing such features is logically independent of making claims regarding featural deficiency in the case of anaphors: in particular, it is possible to be convinced that reflexives may be equipped with full sets of  $\varphi$ -features insisting at the same time that anaphoric binding results from Agree. The crucial distinction between  $\varphi$ -agreement and binding, then, lies in the types of elements entering into an Agree relation: while  $\varphi$ -agreement is established between a nominal and a functional head, binding must be a direct relation between two nominals—an anaphor and its antecedent—bypassing (clausal)  $\varphi$ -probes such as T or v.

Let us suppose, with Hicks (2009), that referentially dependent elements such as reflexive anaphors carry an unvalued [VAR:\_] feature that the semantic interface interprets as a variable over individuals. Referential expressions, on the contrary, carry matching referential features that are valued. Anaphoric dependencies between reflexives and their antecedents then trivially reduce to an application of Upwards Agree: because antecedents occur higher in the structure than the variable they bind, probes must be c-commanded by goals.

In a reflexive context like (51) below, an unvalued [VAR:\_] feature on the reflexive probes upwards, to be valued by a matching valued [VAR:x] feature on the antecedent within a single locality domain (i.e. a phase). The operation and the constraints on it are in fact identical to what we have just seen in (50) for  $\varphi$ -features, only the features are different.

(51) The Queen<sub>[VAR:x]</sub> invited herself<sub>[VAR:\_]</sub> to tea.

As a result of Agree, the anaphor's unvalued referential feature in (51) is valued as [VAR:*x*]. The resulting syntactic dependency is then interpreted by the semantic component as semantic binding.

Bruening (2021) demonstrates, by using coordination environments containing reflexives, that binding is irreducible to the same agreement mechanism as the one that underlies subject-verb agreement.

- (52) a. The Queen<sub>1</sub> invited herself<sub>1</sub>/\*her<sub>1</sub> and the baron to tea.
  - b. The Queen<sub>1</sub> invited the baron and herself<sub>1</sub>/\*her<sub>1</sub> to tea.
  - c. The Queen<sub>1</sub> invited the baron,  $herself_1/*her_1$ , and her advisor to tea.

<sup>&</sup>lt;sup>6</sup>I thank Eric Reuland (p.c.) for asking me about my specific objections to the reductionist enterprise. As stated in the main text, I do not object to the idea of reductionism but rather to how it is typically attempted in the literature.

Though Bruening (2021) does not say it, the very same pattern of reflexive-containing coordinations can be used to argue against reducing binding to an application of the Agree operation involving either a formal feature such as [VAR:\_] or  $\varphi$ -features, for reasons having to do with minimality.

There is a consensus in the contemporary minimalist literature on coordination concerning the existence of asymmetries between coordinands with respect to variable binding, possessee pronominalization and coordinator float (Zhang 2010: §2). The pair of sentences in (53) illustrates the asymmetry for variable binding.

- (53) a. Every  $man_1$  and  $his_1 dog left$ .
  - b. \*His  $dog_1$  and every  $man_1$  left.

In (53a), a quantifier in the first conjunct can bind a possessive pronoun in the second, whereas the converse does not hold. If, as is commonly assumed, variable binding requires c-command, the asymmetry in (53) receives an explanation in structural terms: the two conjuncts are not symmetrical with respect to one another, as witnessed by the unavailability of variable binding in (53b).

The same point about the first conjunct c-commanding the second one can be made on the basis of syntactic binding. The possessive pronoun *his* in the second conjunct can be syntactically bound by a proper name, *John*, in the first conjunct in (54a). When the first conjunct is a pronoun—either the prescriptive *he* or the much more common *him*—which is covalued with a proper name in the second conjunct, however, we get a Condition C effect.

- (54) a. John<sub>1</sub> and his<sub>1</sub> dog left.
  - b.  $*He/him_1$  and John<sub>1</sub>'s dog left.

The fact that *he/him* being covalued with *John* in (54b) brings about a Condition C effect can be taken as evidence of the first conjunct c-commanding the second conjunct.

Returning to coordinations with reflexives illustrated in (52a) above, the coordination in (52b) would have the (simplified) structure in (55), with *the baron* in the first conjunct asymmetrically c-commanding the reflexive in the second.

(55) & & P NP & & ' *the baron* & NP  $[\varphi:M, VAR:x]$  and -self $[\varphi:\_, VAR:\_]$ 

In order for the anaphor to surface as *herself* and have *the Queen* as its antecedent, its unvalued features, whether [VAR:\_] or [ $\varphi$ :\_], must necessarily ignore the closest matching goal (i.e., the valued [VAR:x] and [ $\varphi$ :M] features on the first conjunct, *the baron*).

In the case at hand, the anaphor is a second conjunct inside a coordinate structure, and the first conjunct is the closest goal. Because it appears inside a strong island, the anaphor cannot have moved past the first conjunct to have its unvalued features valued against the external

argument *the Queen*. If the anaphoric dependency between *the Queen* and *herself* is the result of Agree, then this type of Agree must be distinct from regular Agree in not obeying minimality.

An additional problem for Agree-based systems of anaphoric binding is the fact that the reflexive in the second conjunct not only can but also must ignore the first conjunct, unlike in the variable-binding example in (53a) above.

(56) \*The Queen<sub>1</sub> invited the baron<sub>2</sub> and himself<sub>2</sub> to tea.

Given the structure in (55), the anaphor is predicted to be licit. It is, however, illicit even in a rich context, including mistaken-identity, or science-fiction, scenarios that would allow for multiple instantiations of the intended antecedent. Let us consider the context in (57), courtesy of Bryn Hauk (p.c.).

(57) Every student high-fived two athletes. Ahmed high-fived Beatrice and Carlos. Daria high-fived Eric and Fiona. But when it was Mary's turn, there was only one athlete left, so...
\*Mary high-fived John and himself.

Example (57) provides a facilitating context designed specifically to license the binding of a reflexive in a second conjunct by a noun phrase in the first. Yet, the anaphoric dependency predicted by the Agree-based view of binding to be perfectly pedestrian cannot be established, at least according to an informal survey of 18 speakers of English.

In order to avoid violating minimality and thereby rescue the Agree analysis of binding, one could argue that the asymmetric structure for NP coordinations such as *the baron and herself* sketched in (55) is wrong. Since variable binding is attested in the absence of c-command, one could claim that its availability in (53a) and unavailability in (53b), one could declare Zhang's (2010) argument in favour of the first conjunct c-commanding the second one invalid. This would solve the intervention issue since the first conjunct would no longer qualify as a potential goal for the anaphor's unvalued features. It would also explain why *the baron* in the first conjunct in (56) cannot antecede *himself* in the second conjunct whilst *the Queen* in (52) can do so.

This workaround does not help rescue the Agree analysis of anaphoric binding, however. Firstly, variable binding is not the only evidence in favour of structural asymmetries between the coordinands in a coordinate structure. Secondly and more importantly, it predicts there to be no Condition B effects in coordinate structures containing a pronoun instead of the anaphor. This is a wrong prediction:

(58) \*The Queen invited the baron<sub>1</sub> and him<sub>1</sub> to tea.

I interpret the presence of a Condition B effect in (58) as the first conjunct asymmetrically ccommanding the second. The workaround fails, and minimality continues to be problematic for most approaches to binding attempting to reduce anaphor binding to an application of Agree.

Lest one think that the minimality issue only arises in the case of coordinations involving a reflexive anaphor and could therefore be bypassed by concocting an alternative analysis of coordination, the insensitivity of binding to minimality is completely general. This is witnessed by the binding patterns involved in ditransitives and causatives, where both the external argument and the first object (in ditransitives) or the causee (in causatives) are capable of anteceding reflexive anaphors in object positions.<sup>7</sup>

### 4.4 Summary

This section has explored the question whether the matching  $\varphi$ -features between an anaphor and its antecedent characterizing some languages are the result of something more than a mere matching requirement and reflect a syntactic dependency established via the generalized agreement operation, Agree (Chomsky 2000). I have shown that there is a significant overlap between the properties of body-part reflexives and 'fake indexicals' and, since the Agree approach faces irresolvable problems with locality, minimality and c-command, a different, semantic, approach must be used to derive the properties of both 'fake indexicals' and body-part reflexives. I have also shown that, since the reductionist Agree-based approaches to anaphora restrict their attention to (semantic) binding to the exclusion of coreference, they falsely predict that the AAE should not obtain where there is no semantic binding. Finally, I have provided an additional argument from coordination showing that binding as Upward Agree approaches incorrectly predict the first conjunct to antecede an anaphor in the second conjunct. I conclude that Agree is not implicated in the matching of  $\varphi$ -feature values between anaphors and their antecedents; matching is just what it is—matching.

Having discussed the two featural relationships—one between an anaphor and an agreement probe and the other between the anaphor and its antecedent—I now turn my attention to the issue of the differential outcome of attempted agreement with reflexive anaphors.

# 5 Whence unacceptability?

So far in this chapter, we have seen that attempted agreement with reflexive anaphors can have three distinct outcomes: unacceptability, 'trivial' agreement or full resolved agreement, all illustrated below in (59), (60) and (61), respectively.

### (59) Attempted agreement with anaphors $\rightarrow$ unacceptability

a.	*John thinks that [ himself is winning ]	
b.	*A loro interessano solo se stessi	[Italian (Rizzi 1990: 33–34)]
	to them interest only themselves	
c.	*A voi interessate solo voi stessi	
	to you.PL interest only yourselves	
d.	*Gianni vuole che [ se stesso scriva un libro ]	[Italian (Rizzi 1990: 36)]
	Gianni wants that himself write a book	
e.	*Jan zei dat [ zich(zelf) zou komen ]	[Dutch]
	Jan said that himself would come	
	('Jan said that he would come.')	

#### (60) Attempted agreement with anaphors $\rightarrow$ 'trivial' agreement

<sup>&</sup>lt;sup>7</sup>There is one family of reductionist approaches with which I am familiar that appears to be immune from all the minimality-related issues mentioned above, and that is the formalization of Zubkov (2018) and Reuland & Zubkov (2022) in terms of Multiple Agree, with certain assumptions borrowed from Pesetsky & Torrego 2002. Space limitations preclude me from exploring the predictions of that approach in any great detail and I defer it to future work.

a.	How's yourself?	
b.	p-qa b-a-pšə	[Abaza]
	2SG.F.POSS-head 2SG.F.ABS-3SG.N.IO-look(IMP)	
	(addressing a female) 'Look at yourself!'	
c.	Meena-ne apne aap-ko dekh-aa thaa	[Hindi]
	Meena(F)-ERG self's self-DAT see-(PFV)M.SG be.PST.M.SG	
	'Meena had seen herself.'	
d.	Ø [ zeuen buru-a ] saldu d-Ø-u-zue	[Basque]
	pro.2PL.ERG 2PL.POSS head-ART(ABS) sold 3-SG-AUX-2PL	
	'You gave yourselves away.'	
	( <i>lit.</i> : 'You have sold your head.')	

It has become clear from the discussion in §3 that much of what was traditionally analysed in the literature as 'trivial' agreement, *viz.* the Basque and Georgian patterns as well as their counterparts in Abaza, Even and Koryak, in fact instantiate the third strategy, one of resolved agreement with the anaphor. The only point of difference between them on the one hand, and Bagvalal and Sanzhi Dargwa on the other concerns the internal structure of the expression that comes to be used as an anaphor. That said, the fact that attempted agreement with the anaphor in these particular languages does not actually result in 'trivial' agreement does not entail that no language utilizes 'trivial' agreement. In fact, example (60c) shows that Hindi does just that. In this example, both the finite auxiliary and the participial lexical verb *dekhaa thaa* 'had seen' carry masculine morphology even though the dative anaphor *apne aapko* and its ergative antecedent *Meenane* are feminine. The dative case marking on the anaphor is crucial here: dative NPs are not legitimate agreement controllers in Hindi, which is why the lexical and auxiliary verbs surface with default 3SG.M agreement morphology.

### (61) Attempted agreement with anaphors $\rightarrow$ resolved agreement

a.	ima-š:u-r	e=	w=da	w=es:is:i	[Bagvalal (Lyutikova 2001: 624)]		
	father-OBL-	-ERG RE	FL=M=EM	РН M=praised			
	'Father pra	ised hin	nself.'				
b.	madina-j	ca-r	r-ik:-ul	ca-r	[Sanzhi Dargwa (Forker 2020: 558)]		
	Madina-DAT REFL-F F-want.IPF-CVB AUX-F						
	'Madina lov	ves hers	elf.'				

As already mentioned, full resolved agreement with anaphors illustrated in (61) above does not require a special treatment. What has not been established, however, is the reason behind the unacceptability of (59) from English, Italian, Dutch and their kind. I know of two answers to this question that have been proffered in the literature. One, due to Preminger (2019), who continues in the line of Woolford (1999) and Rizzi (1990), is to appeal to the overt nature of agreement in these languages. The other approach is to blame the anaphors'  $\varphi$ -deficiency for failing to trigger agreement with the  $\varphi$ -probes on finite T heads (Reuland 2011, Schadler 2014). Both groups of approaches, however, come short of actually accounting for the differential outcome of attempted agreement with anaphors, since the only tool at their disposal is the lack of certain features on anaphors. Therefore, a view that provides a handle on the differential outcome is *ceteris paribus* preferable to those that do not. Anticipating the discussion in this section, I argue that the unacceptability typically attributed to the AAE has little to do with  $\varphi$ -features, *pace* Reuland (2011), Schadler (2014), Reuland (2020), and equally little to do with agreement, *pace* 

Woolford (1999), Preminger (2019). Instead, most of the facts are explained by the composition of case paradigms in particular languages.

### 5.1 Preminger (2019)

Preminger (2019) argues explicitly that it is the nature of agreement that is responsible for the AAE as a universal constraint, as opposed to morphological idiosyncrasies such as defective case paradigms. To understand the argument, let us consider the Icelandic example (62) from from Maling (1984: 216–217) illustrating the impossibility of the reflexive anaphor *sig* occupying a nominative-object position inside a finite subjunctive embedded quirky-subject clause. In (62), it is the nominative object that the quirky verb must agree with.

(62) Sigga telur [ að mér líki hún /\*sig ] [Icelandic]
Sigga thinks that me.DAT likes.SUBJ.3SG she.NOM REFL
'Sigga thinks that I like her.'

Preminger (2019) observes, as many have done before him since at least Rizzi 1990, that the effect observed in (62) does not arise with anaphors in positions that could not be construed as involving agreement of any kind. This happens in quirky-subject constructions in Icelandic, illustrated in (63), where the quirky-case marked reflexive can easily appear in the subject position of a finite subjunctive clause because quirky subjects are not legitimate agreement goals in Icelandic. Nominative reflexive anaphors are equally acceptable as nominative subjects in Japanese, which lacks  $\varphi$ -agreement altogether, as shown by (64).

(63) Hún sagði [ að sig vantaði peninga ] she.NOM said that REFL.ACC lacked.SUBJ.3SG money 'She said that she lacked money.'

[Japanese (Woolford 1999: 263)]

 (64) sensei-ni-wa zibun-ga wakar-ani-i teacher-DAT-TOP REFL-NOM understand-NEG-PRS
'The teacher does not understand himself.'

Preminger's (2019) reasoning is essentially Woolford's (1999) one in that it must be understood in the context of a larger theoretical debate concerning the existence of agreement in languages with no agreement morphology. Viewed from that perspective, the AAE does indeed appear to play a fundamental role as an argument against null agreement. In a universe where the only two available options are 'No agreement—no AAE' (Japanese) and '(Rich) agreement— AAE' (Icelandic), this makes perfect sense, since manipulating the agreement parameter would predict whether a language will display the AAE. In Woolford's words, 'If it is the presence of agreement that blocks anaphors and not the presence of nominative Case, then we expect to find grammatical nominative anaphors in languages without agreement' (Woolford 1999: 262). There are two problems with this argument. Firstly, while true, the statement above logically depends on the inexistence of grammatical nominative anaphors in languages with agreement, falsified by the existence of languages like Avar, Godoberi, Basque and many others, that have both nominative (absolutive) anaphors *and* overt agreement. There is thus no need to provide a parameter-switch explanation for the contrast between Icelandic and Japanese.<sup>8</sup> Secondly, the

<sup>&</sup>lt;sup>8</sup>See Kiparsky (2008: §2.2.2) for a similar conclusion.

Icelandic paradigm buttressing Preminger's (2019) reasoning is incomplete. What is missing from it is an example involving a context where there is never any agreement, such as infinitival clauses. Because such agreement-free environments as infinitival clauses in Icelandic are indistinguishable from the (globally) agreement-free clauses in Japanese, no AAE is predicted to arise in them. Murugesan (2019) provides this missing evidence in the form of example (65) with an infinitival clause and a reflexive in object position. The object position in question is compatible with nominative NPs

(65) \*Svóna fólki ber ekki [ að líka sig ] [Icelandic (Murugesan 2019: 158)]
such people.DAT bears not to like.INF REFL
('It is not for such people to like themselves.')

Because there is no  $\varphi$ -probe in Icelandic infinitival clauses, there is nothing that would prevent the reflexive *sig* from occurring in (65), and yet the sentence is unacceptable. The entire paradigm in (62), (63) and (65), on the other hand, is fully compatible with the view attributing the unacceptability of examples like (62) and (65) to missing nominative forms, as is the acceptability of the Japanese example (64). Icelandic does not have a nominative reflexive whereas Japanese has one. I conclude that the reason for the unacceptability of Icelandic sentences with *sig* in agreement-controlling positions *is* rooted in case rather than agreement.

### 5.2 Italian

Turning now to Italian, let us recall the prototypical examples of the AAE from Rizzi (1990: 33–36) from the beginning of this section:

(66)	a.	*A loro interessano solo se stessi	[Italian (Rizzi 1990: 33–34)]
		to them interest only themselves	
	b.	*A voi interessate solo voi stessi	
		to you.PL interest only yourselves	
	c.	*Gianni vuole che [ se stesso scriva un libro ]	[Italian (Rizzi 1990: 36)]
		Gianni wants that himself write a book	

There is reason to believe that the unacceptability of (66a) is not about the AAE at all. If it were the AAE that was responsible for the unacceptability of (66a), embedding the anaphor *se stessi* inside an NP as that NP's complement would be predicted to improve the judgement. This is a false prediction, as (67) is no better than Rizzi's (1990) original example:

(67) \*A loro interessano solo [gli amici di se stessi ]
to them interest only the friends of themselves
('Only their friends interest them.')

Given what we have just seen for Icelandic, the question of whether it is the unavailability of nominative anaphors in Italian that is behind the unacceptability of (66a) is a natural one. If the fact that *se stessi* is case-defective is implicated in the attested patterns of acceptability judgements, we predict that substituting the nominative *loro* 'they' for *se* and keeping the intensifier *stessi* should ameliorate the judgement. This is exactly what we find, as demonstrated by the acceptability of (68).

(68) A loro interessano loro stessi e le loro famiglie to them interest they selves and the their families 'Only they themselves and their families interest them.'

The facts are more complicated, however, since the acceptable (68) appears to be identical to the unacceptable (66b) from Rizzi 1990 but for the difference in person features. The acceptable one involves covaluation between two third-person NPs whereas the unacceptable one involves covaluation between two second-person NPs. Whatever the reason for the unacceptability of (66b) is, it does not appear to be directly linked to the AAE.

The case-based explanation also accounts for the unacceptability of (66c) involving a reflexive anaphor in embedded subject position: since only nominative NPs can appear as finiteagreement controlling subjects in Italian and *se stesso* does not have a nominative form in its paradigm, there is no expectation that (66c) should be acceptable. Once the objective *se* is replaced with the nominative *loro*, however, sentences like (66c) become acceptable. I provide two naturally occurring examples below that are structurally identical to the unacceptable (66c).

(69)	Certo sappiamo [ che noi stessi dobbiamo fare tutto il possibile ]					
	certainly we	.know that ou	rselves must	do all	the poss	ible
	'We know, o	f course, that we	e must do every	thing possil	ble.'	<pre>shorturl.at/bprT9</pre>
(70)	sapete	[ che voi stessi	siete i prin	nia rinunc	iare alla v	ostra privacy ?]

you.know that yourselves are the first to renounce to your privacy '... do you know you're the first to give up your privacy?' shorturl.at/k0Z15

I conclude that a substantial proportion of the Italian data traditionally characterized and analysed as following from the AAE is fully consistent with the case-based explanation.

### 5.3 Dutch

Reuland (2001: §4.5.3) and Schadler (2014: 24) argue that the inability of SE-reflexives such as *zich* in Dutch to occur in embedded finite Spec, TP with its antecedent in a higher clause, as in (71), repeated from above, follows from the inherent  $\varphi$ -deficiency of these elements that makes them incapable of checking and erasing all the uninterpretable features of finite T/Infl/Agr.

(71) \*Jan zei dat [ zich(zelf) zou komen ] [Dutch] Jan said that himself would come ('Jan said that he would come.')

What characterizes the Dutch anaphor(s) *zich(zelf)* is that they only have an objective form and no nominative, subjective, form, just as we have seen for Icelandic and Italian above. We can now show that the inability of *zich(zelf)* to occur in subject position is not about  $\varphi$ -deficiency at all, since there are perfectly legitimate instances of  $\varphi$ -deficiency that do not lead to unacceptability but feature default agreement morphology.<sup>9</sup> One such context is impersonal passivization, illustrated in (72) and (73) below.

<sup>&</sup>lt;sup>9</sup>It appears that exactly the same argument can be made for Mainland Scandinavian languages (and Afrikaans), where attempted agreement with anaphors in finite-clause subject position invariably results in unacceptability even though these languages do not display verbal agreement and are therefore predicted to behave, for the purposes of the AAE, exactly like Japanese.

(72) Er is/\*zijn nog jaren naar een oplossing gezocht. there be.3SG.PRS/\*be.PL still years for a solution searched 'They searched for a solution for many years.'

Dutch impersonal passives are passive-like structures formed on the basis of intransitive verbs. Like regular passives, they consist of an auxiliary (*is* in (72) above) and a past participle. Because there is no internal argument to move to Spec,TP, that position is filled by an adverbial expletive, *er*. It is a safe claim that *er*, by virtue of not even being an NP, is  $\varphi$ -feature deficient; yet its being used does not lead to unacceptability. In fact, it could be argued that it is precisely *because* the expletive *er* is feature-deficient, that default, 'trivial' agreement is triggered.<sup>10</sup>

If the temporal adjunct *nog jaren* 'for many years' is topicalized, the expletive is customarily omitted, as illustrated in (73), and there still is nothing for the finite T to agree with.

(73) Nog jaren is naar een oplossing gezocht. [Dutch (Ackema & Neeleman 2019: 22)] still years be.3SG.PRS for a solution searched 'People searched for a solution for many years.'

Again, in (73), the finite auxiliary verb expresses third-person singular agreement morphology even though no agreement controller is present. Default agreement is therefore available in Dutch in the absence of a  $\varphi$ -complete subject, and it is hard to imagine a more radical case of featural deficiency than (72) and (73) above.

Now, it would appear that the absence of an NP argument and hence of any  $\varphi$ -features altogether is actually preferred by the grammar of Dutch to the presence of a  $\varphi$ -complete NP argument bearing wrong case by virtue of not being nominative, as shown in (74). In that example, the sentential subject position is filled with the objective form of the first-person singular pronoun, *mij* 'me'. Assuming *is* manifests default agreement, as in (73) above, it must be the personal pronoun that is responsible for unacceptability.

(74) \*Mij is naar een oplossing gezocht. me be.3SG.PRS for a solution searched ('I searched for a solution.')

The active-voice counterpart of (74), provided in (75) below, is equally unacceptable. In it, default 3SG agreement is realized on the lexical verb, *zoek-t* 'search-es'.

(75) \*Mij zoekt naar een oplossing. me searches for a solution ('I search for a solution.')

Whatever is responsible for the unavailability of default agreement in (74) will be responsible for the unavailability of default agreement when the subject position is occupied by *zich(zelf)*. I should note that, when objecting to a  $\varphi$ -deficiency explanation of the unacceptability of SE-(and SELF-) anaphors in subject position, I do not claim that *zich(zelf)* is not  $\varphi$ -deficient, it very

<sup>&</sup>lt;sup>10</sup>Eric Reuland (p.c.) observes that *er* may not be necessarily adverbial, since its compatibility with prepositions — *erover* 'about it', *eronder* 'under it' etc. — is indicative of it being a pronominal of sorts. From this pronominality, Reuland deduces the possible presence of  $\varphi$ -features on *er*, thus undermining my argument. If this reasoning were followed through, however, the reflexive *zich(zelf)*, by virtue of being equally compatible with prepositions, would also have to be analysed as non- $\varphi$ -defective. Compatibility with prepositions, then, does not unambiguously establish either *er* or *zich(zelf)* as more  $\varphi$ -deficient than the other, and my argument is still valid.

well could be. I solely claim that even if it is  $\varphi$ -deficient, this  $\varphi$ -deficiency could not be behind the unacceptability of *zich(zelf)* as a finite subject.

### 5.4 Loose ends

We have seen in this section that most of the unacceptable examples of attempted agreement with reflexive anaphors in English, Icelandic, Italian and Dutch traditionally attibuted to the workings of the AAE receive a natural explanation in terms of the deficiency of case paradigms for anaphors in these languages. There remains a small subset of data that the case-based explanation does not appear capable of accounting for. Let us consider, again, a Hindi example of an anaphor in object position.

(76) Meena-ne apne aap-ko dekh-aa thaa [Hindi (Murugesan 2019: 152)] Meena(F)-ERG self's self-DAT see-(PFV)M.SG be.PST.M.SG 'Meena had seen herself.'

It is a matter of record that Hindi transitive clauses in the perfective show ergative alignment whereby the external argument carries ergative case and the internal argument carries unmarked nominative case. Agreement, also being ergatively aligned, tracks the unmarked nominative (or absolutive) internal argument. This is not what we see in (76), where there is no nominative (or absolutive) NP. Because Hindi does not have a nominative reflexive anaphor, we find instead that the internal argument is realized as a dative-marked reflexive anaphor, *apne aapko*. It is therefore a legitimate question why an argument in the 'wrong case' in Hindi does not result in unacceptability in just the same way as we have seen for Dutch, Icelandic and Italian above.

The answer to that question is to be found in the existence of differential object marking in Hindi, including the ergative clauses of the language. When the internal argument of a Hindi ergative clause is *-ko*-marked, finite agreement does not reflect the features of either the ergative external argument or the differentially marked internal argument and surfaces as default 3SG. I illustrate this in (77), where the internal argument *is filmko* 'this film' is feminine and the agreement on the finite lexical verb is masculine.

(77) maĩne is film ko dekhā 1SG.ERG DEM movie.F.SG ACC see.PFV.3M.SG 'I have seen this film.'

The agreement pattern in (76) involving an oblique-marked reflexive internal argument is therefore identical to the agreement pattern with oblique-marked non-reflexive internal-argument NPs independently attested in the language and illustrated in (77). Dutch, Icelandic and Italian, on the other hand, do not have alternative case-marking and agreement strategies at their disposal, and that is why using non-nominative forms of the anaphor where nominative NPs are required results in unacceptability. This is also what happens in Hindi, incidentally, in environments for which there is no alternative agreement strategy, *viz*. subject agreement. When a non-nominative anaphor occurs in the nominative subject position, the result is the same one as in Dutch, Icelandic and Italian, *i.e.* full unacceptability:

(78) \*anu-ko apne-aap pasand hɛ Anu-DAT REFL like be.PRS ('Anu likes himself.')

[Hindi (Bhatia & Poole 2016: 63)]

[Hindi (Montaut 2018: 283)]

Example (78) involves a dative experiencer verb 'like' that is similar to quirky verbs in Icelandic in that its dative experiencer argument is typically analysed as the 'subject' by virtue of being able to bind into its nominative internal argument. In such clauses, like in Icelandic,  $\varphi$ agreement tracks nominative case. The nominative object position in (78), on the other hand, is filled with a non-nominative reflexive NP, and no other agreement strategy is available, unlike for object agreement.<sup>11</sup> Thus, (78) is actually predicted to be unacceptable.

### 5.5 Summary

This section has explored the possible reasons behind the unacceptability of attempted agreement with reflexive anaphors in some languages. Having considered the existing accounts couched in terms of 'failed agreement' and  $\varphi$ -deficiency, I have shown that they do not stand up to scrutiny. The main weak spot of such accounts is their inability to consistently predict the outcome of attempted agreement with anaphors, which is natural, since they only have one tool at their disposal (*i.e.*  $\varphi$ -deficiency, which is either inherent or stems from encapsulation).

A closer examination of several case studies has revealed that a case-based explanation covers significantly more ground than previously admitted (see also Murugesan 2019: §6.2–6.3 for a detailed discussion of Icelandic, Hindi and Inuktitut, with which I mostly concur). It is a robustly attested pattern that, when an NP in a 'wrong' case occurs in a position requiring an NP in the 'right' case, the result is typically unacceptability, unless there is an alternative pattern compatible with the 'wrong' case. Because reflexive anaphors in Dutch, English, Hindi, Icelandic and Italian have defective case paradigms, using an objective form where a subjective, nominative, form of the anaphor is required naturally results in unacceptability, just as it does when the offending NP is not reflexive or anaphoric.

# 6 Conclusions

In contrast to most of the existing work that has attempted to provide a unified account of the ban on agreement with reflexive anaphors known as the Anaphor Agreement Effect, the present chapter has defended the view whereby the AAE is a by-product of agreement-related patterns independently attested in the languages surveyed. I have argued that the AAE is heterogeneous and arises from independent factors specific to a particular language or language family. There is no deep-rooted ban on agreement with reflexive anaphors, and there can therefore be no strategies that languages would 'use', as if they were sentient beings, to avoid violating it.

Throughout the chapter, I have argued that agreement probes frequently ignore the  $\varphi$ -features of reflexive anaphors because those features occur in such positions inside the anaphoric NP that are not legitimate agreement controllers in the first place. The prototypical case is a possessor inside a possessed NP. I have also argued that much of what has been analysed as 'trivial' agreement with an anaphor in the literature in fact instantiates full resolved agreement with the possessed body-part NP that comes to be used for reflexivization. With respect to the relationship between the anaphor's  $\varphi$ -features and those of the antecedent, I have argued that, since this covariance requires impossible syntactic operations to even be implementable and that a separate matching mechanism is required anyway, reflexives that inflect for  $\varphi$ -features must

<sup>&</sup>lt;sup>11</sup>Bhatia & Poole (2016) show further that, once the anaphor is embedded inside an NP with a non-defective case paradigm that does have a nominative form, the result becomes acceptable.

have them from the start and never inherit them from their antecedents. It is therefore unlikely that binding can be reduced to Agree. This does not mean that all anaphors in all languages are like that, since it is not inconceivable that the grammar should allow truly  $\varphi$ -deficient anaphors. Finally, I have underscored the role of case paradigms, especially in relation to reflexive anaphors, in accounting for the observed distributions of judgements, and paradigm gaps, such as the absence of nominative/accusative reflexive anaphors in many languages, typically arise for historic reasons. As regards the AAE, I thus concur with Kiparsky (2008), who, writing about the crosslinguistic restrictions on nominative anaphors, concludes that

There is simply no synchronic principle at work. The historical explanation coversthe data perfectly.(Kiparsky 2008: §2.2.2)

There indubitably remain patterns of agreement involving reflexive anaphors in the world's languages that do not reduce to any of the patterns listed above. Such phenomena as the 'agreement switch' in Kutchi Gujarati, for example, still await an analysis.

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