

THE FEATURES OF BINDING AND PERSON LICENSING

Dissertation

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Abstract

This thesis is concerned with the features that underlie the syntax of reflexive binding and person licensing, addressing two competing analyses within Agree-based frameworks, namely φ -feature-based and referential-feature-based approaches. In order to determine what is the featural correlate of anaphoric dependencies, it focuses on a specific class of syntactic restrictions on reflexive anaphors and anaphoric agreement markers: in several languages, reflexives are banned as direct objects in double object constructions, patterning with 1st/2nd person pronouns and obeying what is known as the Person-Case Constraint (PCC). The aim of this thesis is to develop a syntactic theory of binding and person licensing that accounts for the common behavior of reflexives and 1st/2nd person pronouns in double object constructions and beyond, in a way that informs the debate on the featural content of anaphors and more largely on the syntactic encoding of reference and referential dependencies.

The main claim is that referential features, formalized as [ID]-features, encode referential dependencies such as anaphoric binding and are also the underlying feature behind person licensing. This explains the common restrictions on reflexives and 1st/2nd person, in a way that a φ -based approach cannot. I propose that 1st/2nd person and reflexive anaphors form a natural class, defined by an unvalued [ID]-feature. Local, weak reflexive anaphors are referentially deficient and need to be bound via [ID]-agreement by a local antecedent through the mediation of a reflexive voice head. 1st/2nd person weak pronouns, by virtue of being indexicals, are context-dependent and need to be syntactically linked to a syntactic representation of the utterance context to value their [ID]-feature. Additionally, I argue that three kinds of reference-tracking inflectional markers, namely verbal reflexive markers, switch reference markers and 4th person possessive markers, can be subsumed under the notion of anaphoric agreement, defined as agreement in [ID]-features.

Besides developing a novel theory of binding and person licensing, this thesis also provides thorough literature reviews on these topics in Agree-based frameworks, and features detailed data reports of PCC-effects with 1st/2nd person on reflexives in French, Swahili, Warlpiri and Southern Tiwa (including original data from Swahili based on fieldwork), but also of cross-linguistic patterns of verbal anaphoric agreement, switch reference and 4th person agreement and of the phenomenon known as the Anaphor-Agreement Effect.

Zusammenfassung

Diese Dissertation befasst sich mit den Merkmalen, die die Grundlage für die Syntax der reflexiven Bindung und Person-Lizenziierung bilden. Sie vergleicht eingehend zwei konkurrierende Analysen der reflexiven Bindung und Person-Lizenziierung innerhalb der Domäne der Kongruenztheorien, nämlich den φ -Merkmal-basierten Ansatz und den Ansatz, der auf referentiellen Merkmalen basiert. Um die Frage zu beantworten, welcher Ansatz adäquater ist, konzentriere ich mich auf einer besonderen Klasse von syntaktischen Einschränkungen, die für reflexive Anaphern und anaphorische Kongruenzmarker gelten: in mehreren Sprachen sind reflexive Anaphern ungrammatisch, wenn sie in der Rolle eines direkten Objekts in Doppel-Objekt-Konstruktionen agieren. In diesem Sinne verhalten sie sich genauso wie Personalpronomen der 1. oder 2. Person, indem sie dem sogenannten *Person-Case Constraint* (PCC) unterfallen. Diese Dissertation hat als ihr Ziel, eine syntaktische Theorie der reflexiven Bindung und Person-Lizenziierung zu entwickeln, die dieses gemeinsame Verhalten von Reflexivpronomen und Personalpronomen der 1. oder 2. Person in Doppel-Objekt-Konstruktionen erklärt und somit auch zur Debatte über die Merkmalausstattung von Anaphern und über die syntaktische Kodierung von Referenz und referentiellen Abhängigkeiten beiträgt.

Die grundlegende Behauptung dieser Dissertation ist, dass referentielle Merkmale, die ich als [ID]-Merkmale formalisiere, referentielle Abhängigkeiten wie die anaphorische Bindung, syntaktisch repräsentieren und gleichzeitig die Grundlage für die Person-Lizenziierung bilden. Dadurch wird die Tatsache erklärt, dass Reflexivpronomen und Personalpronomen der 1. oder 2. Person den gleichen Einschränkungen unterliegen, was φ -Merkmal-basierte Ansätze nicht machen können. Die Idee, die in der Dissertation entwickelt wird, ist, dass Reflexivpronomen und Personalpronomen der 1. oder 2. Person eine natürliche Klasse bilden und dass diese natürliche Klasse durch ein unvaluiertes [ID]-Merkmal charakterisiert ist. Lokale, schwache Reflexivpronomen sind referentiell mangelhaft und müssen durch [ID]-Kongruenz von einem Antezedens via einen reflexiven Voice-Kopf gebunden werden. Schwache personalpronomen der 1. oder 2. Person gehören zu den indexikalischen Ausdrücken und daher sind kontextabhängig: sie müssen mit einer syntaktischen Repräsentation des Äußerungskontexts verlinkt werden, um ihr unvaluiertes [ID]-Merkmal zu valuieren. Ich behaupte außerdem, dass drei Arten von Flexionsmarkern der referentiellen Identität/Nicht-Identität – nämlich verbale Reflexivmarker,

switch-reference-Marker und Possessivmarker für die 4. Person – unter dem Begriff der anaphorischen Kongruenz zusammengefasst werden können, und zwar der [ID]-Kongruenz.

Diese Dissertation enthält nicht nur eine neue Theorie der syntaktischen Bindung und Person-Lizenzierung, sondern auch einen breiten Überblick der bestehenden syntaktischen Kongruenzanalysen von diesen Phänomenen. Außerdem werden detaillierte Daten zu PCC-Effekten mit Personalpronomen der 1. oder 2. Person und mit Reflexivpronomen aus dem Französischen, Swahili, Warlpiri und Southern Tiwa vorgestellt (einschließlich originaler, durch Feldforschung erworbener Swahili-Daten), sowie Beispiele aus verschiedenen Sprachen von verbalen Reflexivmarkern, *switch-reference*-Markern, Possessivmarkern für die 4. Person und von dem sogenannten *Anaphor-Agreement-Effect*.

Abbreviations

A	(animate) plural (Kiowa)	DET	determiner
ABL	ablative	DO	direct object
ABS	absolutive	DS	disjoint subject
ACC	accusative	DU	dual
ACT	active	EMPH	emphatic
ALL	allative	ERG	ergative
ALLOC	allocutive	EXCL	exclusive
ANT	anterior	EXPL	expletive
AP	antipassive	F	feminine
APPL	applicative	FOC	focus
ART	article	FUT	future
ASSOC	associative	FV	final vowel
ASP	aspect	GEN	genitive
ATTR	attributive	HAB	habitual
AUX	auxiliary	HON	honorific
BAS	basic number	I	inverse number (S. Tiwa & Kiowa)
C	(subject or object) control	IMP	imperative
CAUS	causative	INCL	inclusive
CISLOC	cislocative	INCP	inceptive
CL	clitic	IND	indicative
COMP	complementizer	INDEP	independent mood
CONT	continuous aspect	INF	infinitive
COP	copula	INS	instrumental
D	dual (S. Tiwa)	INTENS	intensifier
DIR	direct	INTR	intransitive
DAT	dative	IO	indirect object
DECL	declarative	IPFV	imperfective
DEF	definite	IRR	irrealis
DEM	demonstrative	LOC	locative
DEP	dependent mood	M	masculine

MOD	modalis case	SG	singular
N	neuter	SIM	simultaneous
NACT	non-active	SM	subject marker
NEG	negation	SO	same object
NHUM	non-human	SS	same subject
NMLZ	nominalizer/nominalization	TOP	topic
NOM	nominative	TR	transitive
NPST	non-past		
NS	non-specific		
OBJ	object		
OBL	oblique		
OBV	obviative		
OM	object marker		
P	(inanimate) plural (S. Tiwa & Kiowa)		
PART	participial mood		
PASS	passive		
PFV	perfective		
PL	plural		
POSS	possessive		
POSTP	postposition		
POT	potential		
PREP	preposition		
PREV	preverb		
PROG	progressive		
PROX	proximate		
PRS	present		
PS	pronominal suffix		
PST	past		
PTCP	participle		
PTV	partitive		
REFL	reflexive		
REL	relative		
RELN	relational		
RCM	reciprocal marker		
RFM	reflexive marker		
RPST	remote past		
S	singular (S. Tiwa & Kiowa)		
SBJ	subject		
SBJV	subjunctive		

Chapter 1

Introduction and overview

This thesis probes into the syntax of local reflexive anaphors, and more broadly into the syntactic encoding of reference and referential dependencies. While it is established that the relationship between an anaphor and its antecedent involves a referential dependency, anaphoric binding has also been argued to have a syntactic underpinning (since [Chomsky 1981](#)). Within the Minimalist framework ([Chomsky 1995b](#) et seq), in which this work is couched, the binding relationship between a reflexive anaphor and its antecedent is generally analyzed as an Agree relation between them, accounting for the syntactic character of anaphoric binding. What remains controversial, however, is how reference, and hence syntactic dependencies that specifically target reference, are syntactically encoded. In particular, theories of binding as Agree are divided about which features are at play in anaphoric binding. One family of analyses takes binding to be governed by agreement in φ -features such as person and number, similar to φ -agreement ([Heinats 2008](#); [Kratzer 2009](#); [Reuland 2011](#); [Rooryck & Vanden Wyngaerd 2011](#)), while another proposes that binding is powered by agreement in referential features, which take indices as values and specifically encode referential identity between nominals of a derivation ([Hicks 2009](#)). This discussion can and has been informed by looking at the morphological characteristics, the syntactic distribution and the semantic behavior of pronouns and anaphors and the relation between them, but so far the debate has not been settled.

A promising avenue to shed light on which features are involved in referential dependencies is the study of syntactic restrictions on anaphors that cannot be explained simply by the application of binding principles, i.e. by the sole conditions on the locality of the antecedent within the same clause. One such restriction is for instance the Anaphor-Agreement Effect ([Rizzi 1990a](#); [Woolford 1999](#)), which restricts the occurrence of reflexive anaphors to non- φ -covarying contexts, studied recently by [Murugesan \(2019\)](#) as an argument for the φ -approach to binding. This thesis focuses on another class of restrictions on reflexives, namely on intervention effects between direct object reflexives and their subject antecedents in double object constructions (henceforth DOCs). In many languages,

including French, Swahili, Warlpiri, Southern Tiwa, Tzotzil, Mohawk or Lubukusu, reflexives are banned from appearing as direct objects in DOCs, as illustrated with French below.

- (1) *Il se lui présente.
 3SG.NOM 3REFL.ACC 3SG.DAT introduce.PRS.3SG
 Int: ‘He introduces himself to him/her.’ *3 IO > REFL DO

This restriction affects languages with weak or cliticized pronominal reflexives, i.e. reflexives of the SE-type, but also, as will be shown in this thesis, languages with verbal anaphoric agreement, i.e. special agreement markers surfacing when the agreement controller is a reflexive anaphor, a phenomenon that is independently not well accounted for. Anaphoric agreement (2a) and its ungrammaticality in DOCs when triggered by a direct object anaphor (2b) are illustrated below in Swahili.

- (2) a. Ni- li- ji- ficha (**mwenyewe**).
 SM.1SG- PST- RFM- hide self
 ‘I hide myself.’
 b. *A- li- ji- julisha Juma (**mwenyewe**).
 SM1- PST- RFM- describe Juma self
 Int: ‘He described himself to Juma.’ *3 IO > REFL DO

The restriction on reflexives in DOCs directly parallels a restriction on 1st and 2nd person, illustrated below and known as the Person-Case Constraint (PCC, or *me-lui* Constraint; Bonet 1991), which bans 1st and 2nd person pronouns from occurring as direct objects in DOCs. 3rd person pronouns, on the other hand, are not subject to such restrictions, as shown in (3b).

- (3) a. *Ils me/te lui présentent.
 3PL.NOM 1SG/2SG.ACC 3SG.DAT introduce.PRS.3PL
 Int: ‘They introduce me/you to him/her.’ *3 IO > 1/2 DO
 b. Ils le lui présentent.
 3PL.NOM 3SG.ACC 3SG.DAT introduce.PRS.3PL
 ‘They introduce him to him/her.’ 3 IO > 3 DO

The pattern in (3) has formed the basis for assuming a split between 1st/2nd person on the one hand and 3rd person on the other. From a theoretical perspective, this split has been standardly assumed (since Béjar and Rezac 2003) to follow from a special syntactic licensing requirement affecting 1st/2nd person items only (the Person Licensing Condition), triggered by the presence of PERSON or PARTICIPANT φ -features on 1st/2nd person pronouns and absent on 3rd person ones. Licensing is argued to be achieved through φ -agreement, and specifically person agreement, of 1st/2nd person pronouns with the

functional head v , a relation that is prevented in DOCs due to the presence of a dative indirect object intervener.

Data such as (1) and (2b) challenge the $1^{st}/2^{nd}$ vs 3^{rd} person split and its φ -feature-based explanation. Indeed, the empirical generalization which emerges is that in a given number of languages, reflexives, including 3^{rd} person reflexives, pattern with $1^{st}/2^{nd}$ person in DOCs, rather than with 3^{rd} person. This puzzle adds and relates to the question of the featural correlate of anaphoricity and referential dependencies. This thesis looks to account for the symmetry between reflexives and $1^{st}/2^{nd}$ person, in a way that will inform the debate on the featural content of local reflexive anaphors and anaphoric agreement. It will focus on local, weak pronominal anaphors, i.e. anaphors of the SE type, and anaphoric agreement markers. It does not pretend to offer an analysis of other types of anaphors, such as long-distance anaphors or perspectival anaphors, which plausibly form an orthogonal class of anaphors, or of complex SELF anaphors or body-part anaphors, although my proposal makes some predictions in this respect (see chapters 4 and 9).

The central claim of this thesis is that φ -features are not enough to encode referential dependencies such as anaphoric binding, explain the patterning of reflexives with $1^{st}/2^{nd}$ person or account for anaphoric agreement. Instead, I argue that referential features, formalized as [ID]-features, co-exist with φ -features, and that they are the underlying feature behind anaphoric binding, but also person licensing and anaphoric agreement. Specifically, this thesis makes the following theoretical contributions:

- both anaphoric binding and $1^{st}/2^{nd}$ person licensing are supported by agreement in referential [ID]-features, and not φ -features
 - weak $1^{st}/2^{nd}$ person pronouns and local reflexive anaphors form a natural class, defined by an unvalued [ID]-feature, respectively encoding context or referential dependency
 - the special licensing requirement of $1^{st}/2^{nd}$ person stems from their inherent indexicality, syntactically understood as a need to be linked via [ID]-agreement to a syntactic representation of the utterance context participants
 - local, weak reflexive anaphors need to be bound via [ID]-agreement by a local antecedent, an operation that is achieved through the mediation of a reflexive voice head (following [Kratzer 2009](#) or [Ahn 2015](#)), yielding local subject-orientation
- anaphoric agreement is the morphological expression of [ID]-features on a functional head which stands in an Agree relation with two interpretable [ID]-features of the same value (a configuration arising when a functional head mediates agreement between an object reflexive and its subject antecedent)

- an [ID]-based analysis of anaphoric agreement can be extended to account for two other seemingly unrelated phenomena:
- switch reference marking is analyzed as anaphoric agreement on C heads
- fourth person or reflexive possessor agreement is analyzed as anaphoric agreement on D heads

More broadly, the proposal developed here reframes the theoretical study of pronominal items at large. Indeed, the study of the syntactic constraints of pronominal items has largely been undertaken along two separate axes, one being the divide between anaphors and pronouns, subsumed under the many revisions of Binding Theory (Chomsky 1981 and subsequent works), and the other being the divide between 1st and 2nd person pronouns and 3rd person pronouns (e.g. Baker 2008; Béjar and Rezac 2003; Bonet 1991). This thesis unifies the study of these constraints, and argues that there are reasons to conceive of anaphors and 1st and 2nd person pronouns as a natural class, based on a similar featural make-up.

This thesis is structured as follows. **Part I** introduces the theoretical background and issues on binding and person licensing that are relevant to the questions at hand in the thesis. In **chapter 2**, I introduce classical and minimalist approaches to anaphora and lay out the hypotheses about the featural correlate of anaphoric binding. **Chapter 3** introduces the Person-Case Constraint and how it has previously been accounted for, outlining the challenges faced by an inclusion of reflexives in such theories. **Chapter 4** gives the central proposal of the thesis, namely that person licensing and anaphoric binding can be unified under the umbrella of agreement in referential [ID]-features, the syntactic correlate of context-dependencies.

Part II sets the analysis at work by providing two detailed case studies of the behavior of 1st and 2nd person pronouns and reflexive anaphors in DOCs. **Chapter 5** takes the case of French and the reflexive clitic *se*. It provides a detailed account of the syntax of *se*-reflexives, centered around the presence of a reflexive voice head and [ID]-agreement of the reflexive anaphor. It also addresses central questions that have marked the study of *se*-reflexives (such as their alleged intransitivity) and makes novel empirical generalizations (such as the behavior of *se*-reflexives and 1st/2nd person in *faire*-infinitive causatives). **Chapter 6** develops the analysis further for the Bantu language Swahili, a language with anaphoric agreement, based on novel data from original fieldwork. It proposes a syntactic account of the phenomenon of anaphoric agreement, and shows that reflexives in languages with anaphoric agreement are subject to the PCC in the same way as 1st/2nd person objects.

Part III explores the possible extensions and theoretical consequences of the model proposed. **Chapter 7** explores verbal anaphoric agreement beyond Swahili and investigates patterns in four languages: Southern Tiwa, Warlpiri, Classical Nahuatl and Nez

Perce, concluding that only the first two can be conclusively analyzed as anaphoric agreement. This cross-linguistic survey of anaphoric agreement not only allows to establish diagnostic criteria for anaphoric agreement, but also confirms the prediction that anaphoric agreement is subject to PCC-like intervention effects in languages that also have the PCC for 1st/2nd person. **Chapter 8** argues that the analysis developed for anaphoric agreement at the verbal domain can be extended to the CP-level, where it is applied to the phenomenon of switch-reference, and to the DP-level, where it accounts for so-called 4th person or anaphoric possessor agreement, considerably expanding the scope of my proposal and offering further support for the role of [ID]-features in syntax. Finally, **chapter 9** returns to one of the central arguments in favor of a φ -approach to binding, the Anaphor-Agreement Effect, and demonstrates that this empirical generalization is much weaker than it seems. Among others, I show that some of the alleged cases of AAE evasion strategies can be explained independently by properties of the given reflexivization strategies, while some others can actually be explained in terms of [ID]-licensing, and conclude that if AAE there is, its weigh in favor of φ -approaches and against an [ID]-based analysis should be relativized.

Part I

Binding and Person Licensing

Chapter 2

Binding as Agree

In order to carry out the study of local reflexive anaphors in double object constructions and to understand how it can illuminate the syntactic theory of anaphor binding, it is necessary to understand how anaphoricity and reflexivity have been theorized and what are the issues that underlie their study. This chapter will place the study of reflexive anaphors in its theoretical context and provide the necessary background to tackle the central question of this thesis.

In 2.1, I present the pronouns *vs* anaphora divide against which generative theories of anaphoric binding have been built. I first introduce classical binding theory and binding principles (Chomsky 1981), and then present key aspects of the analysis of Reinhart and Reuland (1993), paving the way for a syntactic analysis of binding. Section 2.2 introduces the paradigmatic change that led to a more minimalist theory of binding, proposing that binding of anaphors, like other syntactic dependencies, is realized by the operation Agree. It also introduces the theoretical assumptions that will be used throughout the thesis. Section 2.3 tackles the question which forms the theoretical backbone of this thesis, namely which features are involved in anaphoric binding. There I develop the basic elements of the main proposal of the thesis, arguing that referential [ID]-features are at the root of binding relations.

2.1 Binding before Minimalism

2.1.1 Introduction: pronouns *vs* anaphors

Reflexive anaphors in the generative tradition have often been defined through their opposition with other pronouns. Yet at first sight, anaphors and pronouns share some characteristics. Both of them are pronominal in nature, i.e. they can stand for a noun. Unlike nouns and proper names, pronominal items lack inherent reference, making them dependent elements. Pronouns, like *him* or *me*, can be used in reference to an individual that is present and salient either in the discourse (1a) or in the utterance context

(1b) (their deictic use), or as bound variables, involving a quantified DP as a linguistic antecedent, as in (1c).

- (1) *Context: Marjorie is the new intern, and Adele is showing her around the office.*
- a. Marjorie_j says that **she**_i has already done all the necessary paperwork. *Discourse antecedent*
 - b. Adele_i introduces **her**_j to the new boss. *Context antecedent*
 - c. Each new intern_i gets introduced to the collaborators working with **her**_{i/j}. *Bound variable*

The use of reflexive anaphors, however, has been noticed to be syntactically more constrained than other pronominals.¹ Reflexive anaphors must stand in a very local syntactic dependency with their antecedent. Consider the following examples.

- (2) *Context: Marjorie_j is the new intern, and Adele_i is showing her around the office.*
- a. **Adele**_i introduced **herself**_{i/*j} to the new boss.
 - b. Adele_i introduced **her**_{*i/j/k/etc.} to the new boss.

In (2a), the reference of the reflexive *herself* is dependent on that of another DP in the sentence, here *Adele*. The DP on which *herself* is dependent can only be *Adele*, e.g. the reflexive cannot refer to any other individual, even if the latter is present in the discourse or utterance context. In contrast, the pronoun *her* in (2b) is free to pick out any referent in the discourse context, except *Adele*, which is the subject of the clause. Furthermore, the reflexive *herself* cannot stand in isolation in a sentence and pick out a referent in the context. For instance, (3a), involving an isolated reflexive, is ungrammatical in English, and the pronoun *she* must obligatorily be used instead of the anaphor.

- (3) a. ***Herself** did all the paperwork.
 b. **She** did all the paperwork.

Hence a reflexive anaphor must have an antecedent, i.e. the DP that it depends on, in the same sentence.

While pronouns like *her* can take a non-local discourse antecedent, their distribution is nevertheless not free, but syntactically constrained. As shown by the ungrammaticality of a coindexed pronoun in (2b), a pronoun can appear in the same clause as a DP if and only if it is not coindexed with that DP.² Pronouns and anaphors thus seem to be in complementary distribution. Anaphors must obligatorily be coreferent with a grammatical

¹I leave aside the case of reciprocal anaphors like *each other*, traditionally also classified as anaphors, and center the discussion around reflexive anaphors, which are the focus of this thesis.

²The use of a coindexed pronoun is nonetheless allowed in certain specific contexts, such as so-called *guise readings*, illustrated in the following sentence: *Everyone loved Bill_i. Even **Bill**_i/he_i loved **him**_i.*

antecedent located in the same clause, while pronouns cannot be coreferent with a DP located in the same clause. Their complementary distribution can also be witnessed in embedded contexts: an anaphor in an embedded clause cannot take its reference from the matrix clause, while a pronoun can.

- (4) a. *Sabrina_i thinks that **herself**_i should win this trial.
 b. Sabrina_i thinks that **she**_{i/j} should win this trial.

In (4), the subject of the matrix clause *Sabrina* is not an appropriate antecedent for the anaphor *herself*, situated in the embedded clause. In contrast, the pronoun *her* can freely refer to the matrix subject. The domain in which distributional restrictions on pronouns and anaphors hold is thus not the sentence but really the finite clause, i.e. a syntactically defined domain.

Finally, the distribution of pronouns and anaphors obeys another syntactic constraint, namely c-command. An anaphor must obligatorily be c-commanded by its antecedent. First, it is ungrammatical for the anaphor to be structurally higher than its antecedent, as for in instance in (5a), where the reflexive would be the subject and its antecedent the object. This is also evident in ditransitives, such as (5b), where direct object *Mary* cannot be coindexed with indirect object *herself*, as the former is structurally lower than the latter.

- (5) a. ***Herself**_i loves Adele_i.
 b. Alice_i showed **herself**_{i/*j} Mary_j.

Second, the following minimal pair shows that the antecedent must not only be structurally higher than the anaphor it binds, but also properly c-command it.

- (6) a. [Adele_i's sister_j] loves **herself**_{*i/j}.
 b. [Adele_i's sister_j] loves **her**_{i/*j}.

In the above examples, although *Adele* and *herself* are located within the same finite clause, *Adele* is embedded within the bigger DP *Adele's sister*. Namely, it sits in the specifier of the possessed DP *sister*. It does not c-command the anaphor, and therefore may not antecede it. Conversely, embedded *Adele* makes an adequate antecedent for the pronoun *her*.

Anaphors hence need a sufficiently local, c-commanding, syntactic antecedent. Pronouns, on the other hand, do not; if they have one, this antecedent should be sufficiently non-local. The distribution of pronominal expressions in clauses and the relations that hold between them and other DPs thus appears to be regulated by the syntax. The following section addresses how the syntactic distribution of pronouns and anaphors has been captured and theorized under Chomskyan Binding Theory.

2.1.2 Chomskyan Binding Theory

The distribution and referential properties of pronouns and anaphors were originally captured from a syntactic perspective by Chomsky's Binding Theory (Chomsky 1981, 1986). As shown in the previous section, reflexive items like *himself* and pronouns like *her* differ in their distribution. Reflexives need a c-commanding clausal antecedent, while pronouns do not. Anaphors therefore appear to be more syntactically dependent than pronouns. The relationship that holds between two DPs that are coindexed and stand in a local c-command relation is referred to as *binding*, defined in (7), and the complementary distribution of anaphors and pronouns captured by binding principles (8).

(7) *Binding*

α binds β if and only if

- (i) α c-commands β ,
- (ii) α and β are coindexed.

(8) *Binding Principles*

Principle A: An anaphor is bound in its binding domain.

Principle B: A pronominal is free in its binding domain.

Principle C: An R-expression is free. (Chomsky 1981:188)

In the Government and Binding (GB) framework, Binding Principles constitute a specific module in the grammar, which governs the syntactic distribution and the interpretation of different types of DPs. Binding relations are conceived as coindexation relations: an anaphor is a DP that must be coindexed by a c-commanding antecedent in its binding domain (=bound) in order to be interpreted as such. In contrast, a pronoun is a DP that must not be coindexed in its binding domain (=free).

In Chomsky (1981), what constitutes a binding domain is defined in terms of governing category. The governing category of an anaphor α is defined as the minimal domain, corresponding to a maximal projection, that contains the anaphor, its governor (the head that immediately m-commands it, i.e. V if the anaphor is an object), and an accessible subject. The governing category and binding domain of anaphors thus more or less correspond to the finite IP/TP, while still allowing to capture contrasts such as the following.

- (9) a. Adele_i believes [_{IP} **herself**_{i/*j}/**her**_{j/*i} to be smart].
 b. Adele_i believes that [_{IP} **she**_{i/j}/***herself**_i is a smart girl].

In (9a), the anaphor *herself* is the subject of the embedded non-finite ECM clause [_{IP} *herself to be smart*]. If binding domains were defined solely in terms of finite clauses or IPs, the anaphor should not be able to find an antecedent to bind it in its own IP (the embedded IP), yet the sentence in (9a) is grammatical. This is correctly predicted

by a definition of the binding domain in terms of governing category. The governor of the anaphor is the matrix verb *believe*, which assigns case to it (the relevant relation to assign case in GB is government), therefore allowing the anaphor to extend the domain in which it may look for an antecedent. *Herself* in (9a) can therefore be bound in the matrix IP. In contrast, in (9b), the anaphor is governed within the embedded IP, which assigns nominative case to it. It cannot find a suitable binder in its governing category, the embedded IP, resulting in ungrammaticality.

Principles A and B of Binding Theory thus account for the difference between two types of dependent elements, pronouns and anaphors, in terms of syntactic requirements. The last binding principle, Principle C, regulates the distribution of R-expressions, i.e. nouns and proper names, illustrated in the following examples.

- (10) a. She_i has talked to **Mary**_{*i/j} yesterday.
 b. John_i believes [**John**_{*i/j} to be smart].
 c. Adele_i believes that [**Adele**_{*i/j} is a smart girl].

In (10a) and (10b), proper names *Mary* and *John* cannot be coindexed in their governing categories, exactly like pronouns.³ However in (10c), *Adele* in the embedded clause cannot be coindexed by *Adele* in the matrix clause either, in spite of those two clauses constituting two different binding domains, contrasting with pronouns which can be coindexed in such configurations. R-expressions must therefore always be free, regardless of the local domain, as captured by Principle C.

Binding principles thus capture on a descriptive level the syntactic properties of anaphora and their complementary distribution with pronouns and R-expressions.

Yet, Binding Theory, as formulated in Chomsky (1981, 1986) and outlined here, faces an important empirical challenge. Principle A and B entail, and indeed rely on, a full complementarity in the distribution of anaphors and pronouns. Anaphors are licensed where pronouns are not and vice versa. However, this is empirically not always the case. Rooryck and Vanden Wyngaerd (2011) identify several contexts where principle B fails to apply, allowing a pronoun to occur even when it is not free in its binding domain. This is for instance the case of with 1st and 2nd person pronouns in French or Dutch, which are used in bound contexts in the absence of dedicated 1st/2nd person reflexives.

- (11) *Dutch*
 a. Ik_i heb **me**_i gewassen.
 I have.1SG 1SG washed.PTCP
 ‘I_i washed myself_i.’
 b. Jan_i heeft **me**_{*i/j} gewassen.
 Jan have.3SG 1SG washed.PTCP

³Like pronouns, this restriction can be circumvented in guise readings.

‘Jan_i washed me.’ (Rooryck & Vanden Wyngaerd 2011:18)

Other languages, such as Haitian Creole or Frisian, lack simplex reflexive forms (e.g. *se/zich*) altogether, and use 3rd person pronouns with a reflexive meaning.

(12) *Haitian Creole (Dondon/Cap Haïtien dialect)*

Emile_i dwe ede li_{i/j}.
Emile should help him.

‘Emile_i should help him_j/himself_i.’ (Rooryck & Vanden Wyngaerd 2011:25)

This absence of principle B effects thus casts doubt on the empirical validity and the syntactic reality of principle B.

Another problematic issue with Binding Theory is that it takes anaphors and pronouns to be primitives of syntax, as it formulates rules such as Principles A and B which manipulate these different types of pronominal elements as atomic entities. What makes an anaphor and what makes a pronoun is in turn described entirely based on the set of rules that they obey, without specifying *why* they must obey such rules. Chomsky (1982:78-89) attempts to address this problem, by recasting binding rules in terms of features, i.e. smaller components, instead of types of NPs. In this system, the feature [+ANAPHORIC] determines whether a pronominal item is subject to Principle A, while the feature [+PRONOMINAL] is what is targeted by Principle B. Types of NPs are thus separated by their featural specifications.

- (13) Anaphors: [+ANAPHORIC, -PRONOMINAL]
 Pronouns: [-ANAPHORIC, +PRONOMINAL]
 R-expressions: [-ANAPHORIC, -PRONOMINAL]
 PRO: [+ANAPHORIC, +PRONOMINAL]

The fourth possible combination, [+ANAPHORIC, +PRONOMINAL] deserves a short aside. Silent subjects of non-finite clauses, PRO, have been argued to instantiate this combination. Indeed, PRO can either have an arbitrary reading, as is the case in (14a), like a pronoun such as *it* or *there* (making it [+PRONOMINAL]), or be coindexed with the subject of the matrix clause, like an anaphor (making it [+ANAPHORIC]), as in (14b).

- (14) a. [_{IP} PRO to abandon the investigation] would be regrettable.
 b. Poirot_i needed a lot of courage [_{IP} PRO_i to abandon the investigation].

Although commendable in principle, the specification of NPs in terms of [±ANAPHORIC] and [±PRONOMINAL] features only restates the above-mentioned problem at the featural level. It still requires to appeal to the notions of anaphor and pronoun to define to

relevant properties to Binding Theory. Being specified for [+ANAPHORIC] is not in itself explanatory for the need to be bound by a local antecedent.

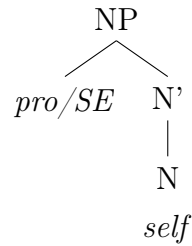
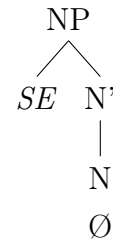
Binding principles, formulated against the background of Government and Binding, are thus in many respects more descriptive than explanatory, leaving open the question of what constitutes the fundamental difference between a pronoun and an anaphor. This question is taken up by [Reinhart and Reuland \(1993\)](#), paving the way towards a more minimalist binding theory.

2.1.3 Licensing reflexivity: Reinhart & Reuland (1993)

[Reinhart and Reuland \(1993\)](#) attempt to revise Principles A and B and their domain of application, taking as a starting point one major problem of Chomsky's Binding Theory, namely its empirical coverage. Besides the above-mentioned cases in which principle B is absent for lack of a dedicated reflexive form, there are also a number of contexts in which both anaphors and pronouns are in free alternation, as the respective (b) examples below show.

- (15) a. Max criticized him_{*i/j}/himself_{i/*j}.
 b. Max_i saw a gun near him_i/himself_i. *English*
- (16) a. Jan_i haat hem_{*i/j}/zichzelf_{i/*j}.
 Jan hates him/SELF
 'Jan hates himself/him.'
 b. Jan_i zag jou achter hem_i/zich_i staan.
 Jan saw you behind him/SE stand
 'Jan_i saw you stand behind him_i.' *Dutch*

[Reinhart and Reuland \(1993\)](#) address this issue by reducing the territory in which Principles A and B apply. First, they draw a typological distinction between SE (or so-called long-distance) anaphors like Dutch *zich* and Norwegian *zeg*, and SELF anaphors like English *himself* or Dutch *zichzelf*. Principle A and B, they say, only regulate the distribution of SELF anaphors. The distribution of SE anaphors, on the other hand, is left to another module of grammar, namely chain theory, which also regulates movement and that will be discussed later in this section. SE and SELF anaphors are distinguished by their internal structure, represented below.

(17) *SELF anaphor*(18) *SE anaphor*

SELF anaphors are taken to be composed of a head N – the *self* part – which combines with a pronoun in determiner position (understood as Spec,NP). SELF anaphors function as reflexivizers: SELF carries a semantic restriction imposing identity of two arguments of a predicate, the antecedent and the pronominal determiner. This reflexivizing function can be understood as a presupposition on SELF, granting it the ability to make a predicate reflexive.

SE reflexives, on the other hand, are like pronouns: they lack a reflexivizing function and sit in determiner position. SE, unlike SELF, but like pronouns, lacks the ability of making a predicate reflexive. SE anaphors are therefore expected to be distributed partly like pronouns. In addition, SELF and SE anaphors share the property of being R-dependent, i.e. referentially dependent, which separates them from pronouns.

Table 2.1: The typology of pronouns and anaphors

	SELF	SE	Pronouns
Reflexivizing function	+	-	-
R(eferential) independence	-	-	+

In this system, the distinction between categories of anaphors and pronouns is less clear-cut, with room left for inter- and intra-linguistic variation as to what makes an anaphor and what makes a pronoun. [ANAPHORIC] and [PRONOMINAL] are no longer taken as syntactic primitives. This typology introduces a three-way distinction within pronominal and anaphoric items, replacing the earlier binary distinction. Additionally, the split between two types of anaphors prefigures the idea that not all anaphors are equal, and that a given theory of binding does not necessarily encompass all anaphoric types (Déchaine & Wiltschko 2012, 2017; Spathas 2017; Sundaresan 2020). The type of anaphors studied in this thesis corresponds to SE anaphors, although assumptions regarding their internal structure will differ.

The second contribution of Reinhart and Reuland (1993) regards the syntactic domain to which Principles A and B apply. As becomes evident when looking at examples (15) and (16) above, pronouns are disallowed only when the pronoun and the antecedent are

arguments of the same verb. When a pronoun is not a co-argument of the DP it is coindexed with, even if it is in the same clause, then coreference is allowed in apparent violation of Principle B, as shown in the (b) examples. For instance, in (16b), the pronoun *hem* is an argument of the preposition *achter* ‘behind’, while the DP *Jan* is the subject of the verbal predicate *zag* ‘saw’. In contrast, in (16a) both the pronoun *hem* and the DP *Jan* are arguments of the verb *haat* ‘hate’. The generalization therefore seems to be that pronouns cannot be coindexed with a co-argument.

Based on these two premises, the key of Reinhart and Reuland’s analysis is the insight that “a universal property of natural language seems to be that reflexivity must be licensed” (Reinhart & Reuland 1993: 662), and that this licensing occurs at the level of the predicate. In other terms, particular conditions must hold for a predicate to be reflexive, namely to have two of its arguments coindexed, as captured in (19).

(19) *Reflexive predicate*

A predicate is reflexive iff two of its arguments are coindexed.

To make the conditions on reflexive licensing evident, consider the following examples. Dutch has both SELF and SE anaphors, respectively *zichzelf* and *zich*. In the examples below, the SE anaphor *zich* is licit as the coindexed argument of the verb *wassen* ‘to wash’ in (20a), but not of the verb *haten* ‘to hate’ (20b), where only a SELF anaphor is allowed.

- (20) a. $\text{Max}_i \text{ wast } \text{zich}_i$.
 Max washes SE
 ‘Max washes himself.’
 b. $\text{Max}_i \text{ haat } * \text{zich}_i / \text{zichzelf}_i$.
 Max hates SE/SELF
 ‘Max hates himself.’

So reflexivity can apparently be derived in one of two ways. We have seen that SELF anaphors, as in (20b), have a reflexivizing function, i.e. they have the ability of making a predicate reflexive. In parallel, reflexivity can be intrinsically marked on a predicate’s head, i.e. a predicate can be intrinsically reflexive, as is the case in (20a). *Wassen* is lexically reflexive in Dutch, and does not need a reflexivizer like *zichzelf* to become reflexive; it can then take *zich* as a coindexed argument. The authors capture this observation under the notion of *reflexive-marking*, which constitutes a condition for reflexivity to be licensed and which they define as follows.

- (21) A predicate (formed of P) is *reflexively-marked* iff either P is lexically reflexive or if one of P’s arguments is a SELF anaphor.

Since *wassen* is lexically reflexive, it does not need to be reflexive-marked a second time by a SELF anaphor, and can occur with a SE anaphor. In contrast, *haten* is not lexically reflexive, and needs a SELF anaphor to be reflexive, as using a SE anaphor like *zich* or a pronoun like *hem* does not make the predicate reflexive. Reflexive-marking can thus either be overt, as in the case of a SELF anaphor, or covert, as in Dutch *wassen*, where nothing signals that the predicate is reflexive.

From this condition on reflexivity ensues the ban on locally coindexed pronouns, which is captured in a new formulation of Principle B, and of its correlate, Principle A.

- (22) a. *Principle A*: A reflexive-marked predicate is reflexive.
 b. *Principle B*: A reflexive predicate is reflexive-marked.

Given Principle B, a reflexive predicate may not contain any coindexed pronoun which would fail to reflexive-mark the predicate, thus ruling out coindexed pronouns as coarguments of non-lexically reflexive verbs, but also SE anaphors which do not work as reflexive-markers. This correctly accounts for the distribution of anaphors and pronouns in (23) below.

- (23) Willem_i bewondert zichzelf_{i/*j}/_{*zich_i}/_{*hem_i}.
 Willem admires SELF/_{*SE}/_{*him}
 ‘Willem admires himself.’

Principle A states that SELF anaphors, being reflexive-markers, must be obligatorily coindexed with another argument of the predicate that they reflexive-mark. This correctly forces a coreferent interpretation of an anaphor with its antecedent in sentences like (23) above, but also accounts for the availability of SELF anaphors when they occur as non co-arguments. In such cases, as there is no reflexive predicate involved, SELF anaphors need not be coindexed. This derives the non-complementarity in English (24), as well as the contrast exemplified in Dutch in (25), where the form *mezelf* is allowed to be non-coindexed when it is not part of a syntactic predicate (25a), but not when it is (25b).

- (24) Max_i saw a gun near him_i/himself_i.
 (25) a. Er waren vijf toeristen_i in de kamer behalve **mezelf**_i.
 there were five tourists in the room except myself
 ‘There were five tourists in the room aside from me.’
 b. *Vijf toeristen_i praatten met **mezelf**_j in de kamer.
 five tourists talked to myself in the room
 Int: ‘Five tourists talked to me in the room.’

In a nutshell, Principles A and B thus dictate that SELF anaphors must be coindexed with their co-argument and that if a predicate has coindexed arguments, one of these must be a SELF anaphor, unless the predicate is lexically reflexive.

As of yet, the revision of principles A and B has accounted for the distribution of SELF anaphors. Coming back to the three-way distinction between SE anaphors, SELF anaphors and pronouns, so far SE anaphors and pronouns are thus expected to have the same distribution, as they do in the following examples. In (23) above, both *zich* and *hem* are ungrammatical as arguments of the verb coindexed with its subject. In (26), they are both allowed as complements of the preposition *voor* and coindexed with the subject of the clause.

- (26) Klaas_i duwde de kar voor zich_i/hem_i/*zichzelf_i uit.
 Klaas pushed the cart before SE/him/*SELF out
 ‘Klaas pushed out the cart before himself.’

However, the parallel distribution of SE anaphors and pronouns does not hold throughout. While *zich* may occur as the coindexed argument of a lexically reflexive predicate, like *schamen* ‘to be ashamed of’, pronouns like *hem* cannot.

- (27) Willem_i schaam zich_i/*hem_i.
 Willem shames SE/*him
 ‘Willem is ashamed of himself.’

This follows from the typology of pronouns, SE anaphors and SELF anaphors proposed in table (16). Recall that SELF anaphors, SE anaphors and pronouns are defined along two parameters: whether or not they have a reflexivizing function and whether or not they are R(eferentially) dependent. As per table (16), SE anaphors differ from pronouns in that the former are R-dependent and the latter are not. Reinhart and Reuland (1993) argue that there is another module of syntax, namely chain theory, which is sensitive to this R property and regulates the distribution of pronouns and SE anaphors outside of Principles A et B. One of the central insights of Chomsky (1973), before Binding Theory as it was introduced in the previous section, was that NP-movement and anaphora are closely related, which led to defining NP-traces as anaphora. This intuition is based on the data in (28) and captured by the following statement: "in the syntactic domain in which a moved NP can bind its trace, an NP can bind an anaphor [-R], but it cannot bind a pronoun or a non-anaphor [+R]" (Reinhart & Reuland 1993: 293).

- (28) a. Felix_i was fired *t_i*.
 b. Felix_i behaved himself_i.
 c. *Felix_i behaved him_i.
 d. *Who_i [did he_i behave *t_i*]?

Reinhart and Reuland (1993) build on this insight, arguing that traces and anaphors share the property that they are both R-deficient. As such, the authors argue that they are both subject to a general condition on A-chains which states that an A-chain may

contain only one $[+R]$ argument, and that this argument must be the highest. Pronouns, being $[+R]$, are ruled out as lower members of such a chain; anaphors and traces, which are all $[-R]$ are ruled in. This correctly derives the complementary distribution of pronouns and SE anaphors in examples like (27). This condition is in a way very reminiscent of Chomsky's original principle A, but it is recast as part of chain theory and limited to SE anaphors. Reinhart and Reuland (1993) thus make a step in the direction of reducing binding to other principles of grammar, by making use of chain theory and reducing the work allocated to Principles A and B as a separate syntactic module.

They even go one step further in this direction. They propose that R-dependency can be reduced to a φ -feature deficiency, φ -features being understood as person, number and gender features on nominals (and agreeing categories). Following Chomsky (1981), Bouchard (1984) and Burzio (1991), Reinhart and Reuland (1993) assume that a full specification of φ -features is a requirement for an NP to project an argument and to be interpretable at LF (Bouchard's Principle of Denotability). Anaphors lack a full specification of φ -features, making them unable to be interpreted independently, and corresponding to their $[-R]$ property; the same is true of traces. This insight, reducing referential dependency to a featural property, will form the basis for later minimalist theories of binding.

To sum up, the theory of pronouns and anaphors developed by Reinhart and Reuland (1993) modifies several aspects of the Chomskyan Binding Theory. They draw a distinction between two types of anaphors, SE and SELF, showing that they have different syntactic structures and different semantic properties (presence or absence of a reflexivizing function). Only the distribution SELF anaphors, which are reflexivizers, is accounted for by Principles A and B, which are recast as conditions on the licensing of reflexivity at the predicate-level. The distribution of SE anaphors and pronouns, on the other hand, is regulated by another module of syntax, namely chain theory, which is sensitive to $\pm R$ -dependency, i.e. φ -deficiency. Importantly, Reinhart and Reuland (1993) conflate the notion of referentiality with that of φ -specification, a premise that I will challenge further in this chapter. Finally, note that the property of being referentially dependent ($[-R]$ or φ -deficient) and that of being reflexive (i.e. have a reflexivizing function) are kept apart, an insight that I will later build on.

Reinhart and Reuland's proposal thus extends the empirical coverage of Binding Theory by stripping it down to smaller atoms (e.g. reflexivizing functions, chain theory and φ -specification). At the same time, Principle A and B remain a binding-specific module of syntax that applies to a binding-specific domain, i.e. that of a reflexive predicate. Nevertheless, their approach can be seen as a first step towards rethinking Binding within the generative tradition in more Minimalist terms.

2.2 Anaphors in Minimalism: Binding as Agree

The Minimalist Program (Chomsky 1995b) is built on the idea that "a maximally efficient system (and hence better designed system) must do with as few levels of representation, operations, and technical devices as possible" (Hicks 2009:37). Therefore a good minimalist theory of Binding should aim at theoretical economy, and make use of more general operations and principles of language. The way that binding is conceived in classical Binding Theory, and even to a certain extent by Reinhart and Reuland (1993), appeals to binding-specific rules, such as Principles A and B. What's more, the notions of anaphor and pronoun are taken as primitives of syntax, and the principles underlying their distribution are largely *ad hoc*. The shift to Minimalism therefore calls for a more radical reconceptualization of Binding Theory, which can no longer retain its original form. Against this backdrop, most recent works on anaphors and pronouns, including this thesis, endeavor to develop a theory of binding with the objective that the distribution of pronouns and anaphors should move from being regulated by a separate module, such as proposed by Binding Theory, to depending on more general syntactic operations and features. This section will introduce the Agree operation as the best candidate to underlie the syntax of anaphoric binding, as proposed by Heinat (2008), Hicks (2009), Rooryck and Vanden Wyngaerd (2011) or Reuland (2011) among others. I first start in section 2.2.1 by introducing the operation Agree, which will be a central tool in accounting for many of the linguistic phenomena surveyed in this thesis. In 2.2.2, I then introduce the parallels between Agree and binding, laying down the bases for recasting binding as an Agree operation. Finally, in 2.2.3, I outline the main features of accounts that have analyzed binding as an Agree operation, taking as an illustration accounts of binding as φ -Agree.

2.2.1 Agree

2.2.1.1 Defining Agree and its structural conditions

The shift to Minimalism articulates syntax around two main operations: Merge and Agree. Merge is the standard tool for building syntactic structure by combining constituents. Agree is the operation that is taken to enforce syntactic dependencies between constituents, such as morphological covariance. Agreement between a verb and a nominal is perhaps the most typical case of formal dependency and covariance in language. For instance, French finite verbs agree with their nominative subjects in person and number.

- (29) a. J' ai la grippe.
 1SG.NOM have.1SG the flu
 'I have the flu.'

- b. **Vous** avez la grippe.
 2PL.NOM have.2PL the flu
 ‘You(pl) have the flu.’

In syntactic theories, agreement is understood as a formal dependency between features: the person and number features of the verb (the target) are dependent on those of the subject (the controller). Since person, number and gender features are gathered under the label of φ -features, agreement in these same features is termed φ -agreement. In minimalist syntax, such φ -dependencies are modeled by the Agree operation. In Chomsky (2000), Agree is formally defined as follows, which I take as a starting definition.

(30) *Agree*:

α can agree with β iff:

- a. α carries at least one unvalued and uninterpretable feature and β carries a matching interpretable and valued feature,
- b. α c-commands β ,
- c. β is the closest goal to α ,
- d. β bears an unvalued uninterpretable feature.

Agree is thus defined as a syntactic relation between two matching features that stand in a particular structural relation to one another. Features in this framework are formalized as attribute-value pairs, which can either be inherently valued or unvalued.⁴ Features are also characterized as uninterpretable and interpretable (Chomsky 1995a). Only the latter, present on goals, contribute to the meaning and are visible at LF. Interpretable features correspond for instance to the φ -features of DPs, while uninterpretable φ -features are found on verbs. This asymmetry accounts for the redundant character of agreement, since only one instance of a feature will be interpreted (the ones on arguments). Features, in Chomsky’s version of Agree, thus come in two flavours:

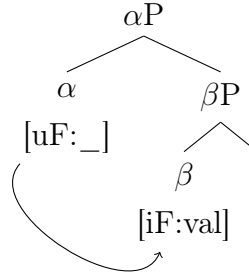
- (31) a. Unvalued, uninterpretable features: [uF: _]
 b. Valued, interpretable features: [iF: val]

In the definition of Agree in (30), a probe α is defined as an unvalued uninterpretable feature [uF: _] and a goal β as a valued interpretable feature [iF: val]. Agree consists in

⁴Features can alternatively be conceptualized as a privative system, where a feature can either be present or absent. For instance, a plural noun would bear the feature [PLURAL] while this feature will simply be absent on a singular noun. Similarly, features can be modeled as binary, e.g. [+PLURAL] vs [-PLURAL]. However, even within a privative or binary system, the existence of groups of features or subfeatures (e.g. PLURAL as part of NUMBER features, themselves part of φ -features) needs to be accounted for. One possibility is thus that what is privative or binary are feature values, which remain paired with a general attribute.

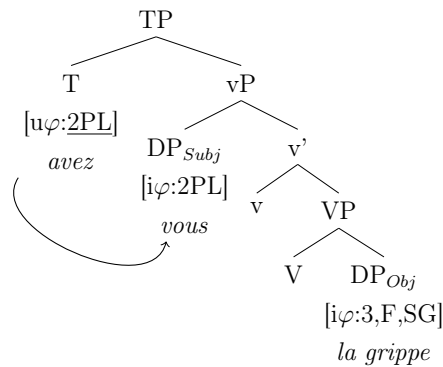
the valuation of α by β , in the configuration schematized below, where a probe α probes in its c-command domain for a matching goal β .

(32)



In this configuration, a T head can thus Agree with the subject in the position in which it is generated, i.e. in Spec,vP. This is illustrated below with the derivation of the French sentence given in (29b) above.

(33)



Let us now unfold the structural conditions needed for Agree, as specified in (30). Agree operations are subject to a number of locality constraints. First, a c-command relation must hold between the probe and the goal as per (30b). To see this, consider the following example from English, containing two DPs, DP_1 *Marie's brothers* and DP_2 *Marie*, embedded within the former.

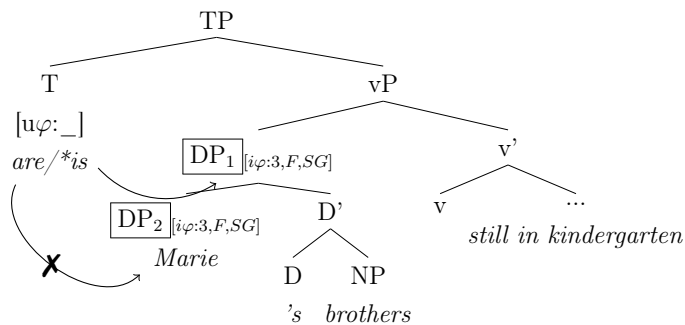
(34) $[_{DP_1} [_{DP_2} \text{Marie's}] \text{brothers}]$ are/*is ~~$[_{DP_1} [_{DP_2} \text{Marie's}] \text{brothers}]$~~ still in kindergarten.

As seen in (34), the verb in T may only agree with DP_1 which it c-commands at the time of agreement. As per the above definition of Agree, agreement is not possible with the embedded possessor DP_2 , since c-command does not hold there.⁵ This is illustrated with

⁵Recent work (e.g. [Van Koppen 2005](#)) has argued that agreement may in fact obtain in such configurations, e.g. in cases of first conjunct agreement in certain dialects of Dutch.

the tree below.

(35)

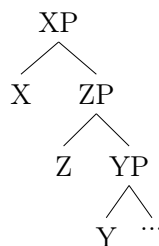


One of the other hallmarks of Agree is that it is sensitive to intervention effects. According to (30c), Agree holds only if β is the closest goal to α , i.e. if no other potential goal intervenes between them. Intervention can be defined as follows.

(36) a. *Intervention*

In a structure $[X...Z...Y]$, Z intervenes between X and Y iff X c-commands Z and Z c-commands Y. (Adger 2003: 178)

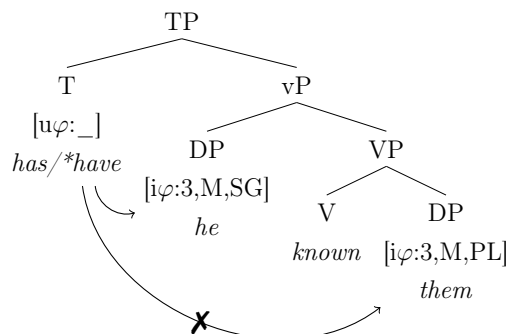
b.



For instance, finite verbs in English can never Agree with objects, because the subject is structurally the closest goal to the φ -probe in T and intervenes between it and the object(s).

(37) a. *He* **has/*have** known **them**.

b.



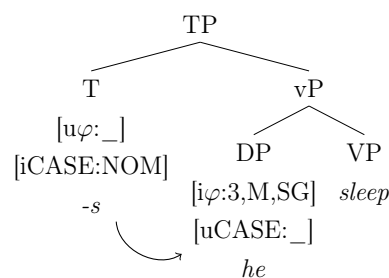
Importantly, locality and intervention are relativized to features (Rizzi 1990b), meaning that a phrase/head does not intervene if it does not bear matching feature attributes, in this case $[\varphi]$.

(30d) is known as the activity condition. In order to be active goals for φ -agreement, DPs need to bear another unvalued uninterpretable feature, a role fulfilled on DPs by unvalued case features. Indeed, case is also taken to reflect a dependency relation between a functional head (the case assigner) and an argument (which carries case), and case was noticed to be correlated with φ -agreement. For example, only arguments carrying accusative case, thought to be licensed by a projection of V (e.g. AgrO or v) in nominative-accusative languages like French, are able to trigger object agreement on the participle. Arguments in the dative, an inherent or lexical case, do not seem to be accessible targets for φ -agreement.

- (38) a. Il **les** a vu-es.
 he 3.F.PL. [ACC] AUX see.PTCP-FPL
 ‘He has seen them.’
 b. Il **leur** a parlé*(-es).
 he 3.F.PL. [DAT] AUX see.PTCP-FPL
 ‘He has spoken to them.’

Theories of agreement have sought to unify the different configurations under which case and φ -agreement obtain (e.g. subject and object agreement) under one unique licensing configuration. In Chomsky’s (2000) conception of Agree, unvalued case features on a DP are proposed to make it active, i.e. accessible for φ -agreement. Case features get subsequently valued by their valued counterpart on the functional head that has agreed in φ -features. Nominative is assigned by agreement with T and accusative by v. This mechanism is illustrated for nominative case assignment in (39) below. Case assignment is thus essentially thought of as a reflex of φ -agreement. Agree relations therefore underly other syntactic dependencies such as case assignment (see also Pesetsky and Torrego (2007) and Bjorkman and Zeijlstra (2019) for a recent revision of the activation condition).

(39)



Finally, a last structural condition comes to constrain Agree relations that is not con-

tained within the definition in (30), namely the Phase Impenetrability Condition (PIC). Consider the case of Punjabi (Indo-Aryan), a language that has object agreement. Assuming that the locus of object agreement is *v*, the closest *c*-commanded goal is the object, located in the VP. This results in covarying agreement for number and gender features with the object, as illustrated in (40).

- (40) a. Miinaa-ne **kitaab** **paRhii**
 Miina-ERG book(F) read.PFV.FSG
 ‘Miina read a book.’
 b. Miinaa-ne facebook te **post** **paRheyaa**
 Miina-ERG facebook on post(M) read.PFV.MSG
 ‘Miina read a Facebook post.’ (Gurmeet Kaur p.c.)

However, when the closest *c*-commanded goal is located beyond a clausal boundary, as in (41) where the verb takes a clausal complement, Agree fails to obtain. In this example, no potential goal intervenes (in the sense defined above) between the probe on *v* and the DP in the embedded subject position. Yet, the probe cannot agree with this DP, despite it constituting the closest accessible goal as per (30).

- (41) Miina-ne **paRheyaa**/***paRhii** [_{CP} ki o **afsar** kal
 Miina-ERG read.PFV.MSG/*FSG that that officer(F) tomorrow
 aayegii]
 come.FUT.FSG
 ‘Miina read that that officer will come tomorrow.’ (Gurmeet Kaur p.c.)

Agreement is indeed restricted to the local clause, i.e. the CP constitutes a boundary for Agree operations. This is captured under the Phase Impenetrability Condition, given below.

- (42) *Phase Impenetrability Condition*
 In a phase α with head *H*, the domain of *H* is not accessible to operations outside α , only *H* and its edge are accessible to such operations. (Chomsky 2000)

The notion of phase refers to syntactic units of computation. In other words, a phase refers to the domain that is computed in narrow syntax in a single cycle before being sent to the interfaces, or Spelled-Out. While it remains controversial exactly how many and which phrases count as phases (see e.g. Keine 2016, 2017; Van Urk 2015), finite CPs, i.e. clauses, are uniformly assumed to be phases. This implicates that finite *C* heads form a boundary for operations like Agree, as observed in (41).⁶

The Agree operation thus offers a formal tool to model syntactic dependencies such

⁶Non-finite CPs are seen as weak phases with regard to the PIC, allowing for instance obligatory control across them (Landau 2015).

as φ -agreement through feature valuation in the local domain. Following the minimalist objective to minimize the number of syntactic operations, a series of phenomena other than φ -agreement which involve syntactic dependencies have recently been analyzed as being implemented by Agree operations. As already mentioned, Case can also be taken to reflect a similar dependency relation between a functional head (the case assigner) and an argument, which carries case (although prominent alternatives to Case as feature agreement have put been put forth, such as Bobaljik’s (2008) dependent case-theory). Agree has also been extended to the formalization of movement and wh-dependencies, with the use of [WH] or [Q]-features (Bošković 2007; Cable 2010; Chomsky 2000, 2001), while Zeijlstra (2004) models negative concord using [NEG]-features. More recently Kauf and Zeijlstra (2018) propose that sequence-of-tense phenomena involve agreement in tense features. Yet, the extension of Agree beyond the domain of φ -agreement has raised several challenges, leading scholars to rethink the definition of Agree since Chomsky’s original formulation of it.

2.2.1.2 The directionality of Agree

One of these challenges is the direction in which Agree operations take place. Chomskyan Agree, as defined previously, was conceived as a downward operation, where probes look down the structure to find goals in their local c-command domain. However, a number of phenomena are not well captured by this definition of Agree but can be better accounted for by reversing the direction of Agree, i.e. if probes look upward for their goals.

Let us take the example of negative concord. Negative concord is observed in languages where the occurrence of multiple negative elements in a sentence does not give rise to multiple semantic negations. Such a language is Italian. Both negative items *non* in (43a) and *nessuno* in (43b) can make the sentence negative when used in isolation. However, when combined together as in (43c), they do not give rise to a double negation reading, but the sentence is interpreted as containing a single negation. Similar effects persist no matter how many negative words (neg-words) are added, as observed in (43d).

- (43)
- a. Gianni **non** ha telefonato.
Gianni NEG has called
‘Gianni did not call.’
 - b. **Nessuno** ha telefonato.
nobody has called
‘Nobody called.’
 - c. Gianni **non** ha telefonato a **nessuno**.
Gianni NEG has called to nobody
‘Gianni didn’t call anybody’.
- Not ‘Gianni didn’t call nobody’ i.e. ‘Gianni called somebody.’

- d. Gianni **non** ha detto **niente** a **nessuno**.
 Gianni NEG has said nothing to nobody
 ‘Gianni has not said anything to anybody.’

Zeijlstra (2004, 2008, 2012) has argued that negative concord, i.e. the fact that languages morphologically reflect negation on several items without semantic redundancy, is to be accounted for in terms of Agree operations. In particular, to account for the fact that neg-words such as *niente* or *nessuno* do not seem to be interpreted as semantic negation, they are argued to carry an uninterpretable [uNEG] (privative) feature, which is to be checked by an interpretable counterpart on the negative head *non* or a higher operator, as schematized below.

- (44) Gianni **non**_[iNEG] ha detto **niente**_[uNEG] a **nessuno**_[uNEG].

Under this account, an uninterpretable feature is necessarily checked by a higher interpretable one, i.e. the goal must c-command the probe. In fact, in Italian, neg-words can never precede the negative head, as attested by the ungrammaticality of (45).

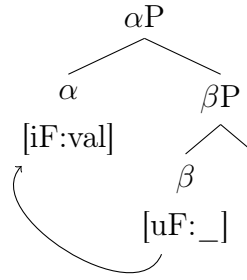
- (45) **Nessuno**_[uNEG] *(**non**)_[iNEG] ha detto **niente**_[uNEG].
 nobody NEG has said nothing
 ‘Nobody said anything.’

Given the respective feature specifications of *nessuno* ([uNEG]) and *non* ([iNEG]), the ungrammaticality of (45) follows straightforwardly if Agree is an upward operation, as a [uNEG] should always be c-commanded by an [iNEG], which is not the case in (45).

Such data has led scholars like Zeijlstra (2012) and Wurmbrand (2012) to argue that Agree should be defined as an upward operation. Because the features of interest in this thesis, namely φ -features and referential [ID]-features (to be introduced later), are thought of as attribute-value pairs, I adopt Wurmbrand’s definition of Upward Agree, where Agree remains valuation driven. This differs from the definition offered by Bjorkman and Zeijlstra (2019), who argue that it is instead driven by checking requirements of uninterpretable features (including in the case of φ -features).

- (46) A feature [F:val] on α **values** a feature [F:_] on β iff:
- α c-commands β ;
 - α is the closest goal to β (=there is no γ , γ distinct from α , with a valued interpretable feature F such that γ c-commands β and is commanded by α).
 - β is accessible to α (accessible=not spelled out) (Wurmbrand 2012:2)

- (47)



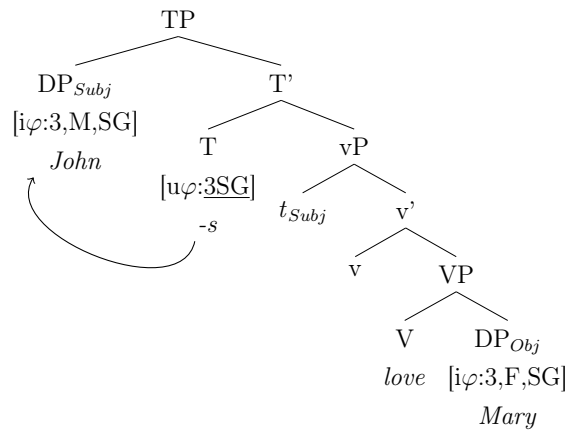
Additionally, I standardly assume that given the Principle of Full Interpretation below, all uninterpretable features must be checked in the course of the derivation, and follow the above-mentioned accounts of upward Agree in assuming that an uninterpretable feature must be checked upward by a c-commanding interpretable counterpart.

(48) *Principle of Full Interpretation (FI)*

A derivation converges only if all the features that arrive at the interface levels (PF and LF) are interpretable at that level of representation.

Upward Agree can account for a series of phenomena beyond φ -agreement (case, negative concord, sequence of tense, wh-dependencies and, as we will shortly see, binding), while allowing us to account for standard cases of φ -agreement. In such models, basic subject agreement as in *John loves Mary* obtains after movement of *John* to Spec,TP, i.e. in a Spec,head position.

(49)



Not only can upward Agree account for φ -agreement equally well as downward Chomskyan Agree, but its superiority over downward Agree is even supported by evidence from the φ -domain. Multiple asymmetries can be observed in the domain of φ -agreement between high and low agreement controllers that provide empirical evidence in favor of upward Agree. Although φ -agreement is found cross-linguistically both with higher and lower arguments, Bjorkman and Zeijlstra (2019) show that φ -agreement is consistently

less robust when the controller (the goal) is lower than its target (the probe). In other words, while it is not the case that φ -agreement is restricted to upward Agree configurations, downward Agree seems to be cross-linguistically subject to a number of limitations (although see [Polinsky and Preminger 2019](#) for an opposite view).

It should be noted that next to models that assume that Agree is uniformly upward or downward, some scholars have assumed a certain flexibility in the direction in which Agree operates, i.e. and have assumed mixed models ([Baker 2008](#); [Béjar & Rezac 2009](#)). Likewise, it has been argued that φ -agreement specifically might not obey a strict upward model ([Preminger 2013](#)), while such a model could be maintained for other, more semantic dependencies such as negative concord. For the reasons exposed above, I uniformly assume upward Agree as the standard definition of Agree operations in the present work. However, it should be noted that the account of binding and person licensing in terms of index features proposed in the remainder of this thesis is theoretically not incompatible with a view of downward φ -agreement.

2.2.1.3 Interpretability and valuation

Another point of divergence in theories of Agree is the relationship that holds between interpretability and valuation of features, and relatedly, whether Agree is driven by feature valuation or feature checking. [Chomsky's \(2000\)](#) definition of Agree improves on previous approaches in one important respect, namely the switch from feature checking to feature valuation as the driving force of agreement. Agreement before Minimalism was conceived of as a checking relation, between an uninterpretable and an interpretable feature. Since only interpretable features contribute to the meaning and are visible at LF, an uninterpretable feature must be checked via Agree before Spell-Out, otherwise causing the derivation to crash: uninterpretable features must be eliminated before LF, in virtue of the Principle of Full Interpretation.

With the disappearance of different layers of syntax and the affirmation of the Y model, the question arises of how narrow syntax can distinguish between uninterpretable and interpretable features. Indeed, (un)interpretability is a notion relevant at LF. Agree driven by uninterpretability faces a look-ahead problem, as pointed out among others by [Epstein, Groat, Kawashima, and Kitahara \(1998\)](#); [Epstein and Seely \(2002\)](#) or [Zeijlstra \(2012, 2014\)](#): at the time where Agree must apply, i.e. in narrow syntax, it is not yet known that an unchecked feature would cause the derivation to crash at LF. Early Minimalism circumvents this problem by reconceptualizing Agree as a valuation relation, as the presence or absence of a value is visible in narrow syntax. Chomsky (1998) argues that the difference between valued and unvalued grammatical features correlates with the distinction between interpretable and uninterpretable features, yielding a system in which features come in two types, as seen above.

- (50) a. Unvalued, uninterpretable features: [uF: _]
 b. Valued, interpretable features: [iF: *val*]

This correlation is broken down by Pesetsky and Torrego (2007), who argue that valuation and interpretability are independent of each other. This results in four possible types of features:

- (51) a. Unvalued, uninterpretable features: [uF: _]
 b. Valued, interpretable features: [iF: *val*]
 c. Valued, uninterpretable features: [uF: *val*]
 d. Unvalued, interpretable features: [iF: _]

Importantly, Pesetsky and Torrego (2007) still assume that Agree is valuation driven (and that (un)interpretability of features is irrelevant for purely syntactic operations like Agree), and their approach now predicts that two types of features may act as probes, namely unvalued uninterpretable features but also unvalued interpretable features. As we will see, this assumption will prove crucial in applying the Agree operation to the domain of anaphoric binding, as anaphors will be shown to instantiate exactly this last type of features.

Next to their claim about the independence of valuation and interpretability, Pesetsky and Torrego (2007) add the assumption that Agree does not result in the simple assignment of a value by a goal to a probe, resulting in the deletion of the uninterpretable feature of the probe, once valued. Instead, they propose that Agree results in feature sharing, such as defined below (they assume downward Agree), following Frampton and Gutmann (2000, 2006).

- (52) *Agree (Feature sharing version)*
- a. An unvalued feature F (a probe) on a head H at syntactic location α ($F\alpha$) scans its c-command domain for another instance of F (a goal) at location β ($F\beta$) with which to agree.
 - b. Replace $F\alpha$ with $F\beta$, so that the same feature is present in both locations.

Under feature sharing, if the goal β is valued for F, replacing the unvalued F on probe α with $F\beta$ results in an instance of valued F occupying the location previously occupied by the unvalued probe. Agree thus establishes a link between the properties of two elements by making them instances of the same feature, a link which is accessible for subsequent processes. This assumption yields desirable consequences, especially in the domain of multiple agreement configurations, as will become clear in the course of this thesis.

Summing up, this section has introduced the operation Agree and the basic structural

conditions under which it obtains, and discussed further developments regarding its directionality and the nature of its output, which will form the basis for further applications of Agree throughout this thesis. We have seen that some of the amendments made to the original definition of Agree, for instance its directionality, were motivated among others by the extension of its domain of application to syntactic dependencies beyond φ -agreement. In the next section, I show that there are grounds to consider anaphoric binding as one of the syntactic dependencies powered by an Agree operation.

2.2.2 Parallels between Binding and Agree

Given (i) the theoretical desiderata to reduce Binding to existing means of language, and the fact that (ii) in Minimalism all syntactic dependencies are formalized as Agree and (iii) binding relations ultimately involve a syntactic dependency, as shown in 2.1, Agree emerges as an obvious candidate to power anaphoric relationships. In this section, I show that this conclusion is warranted by many empirical parallels: anaphoric relations are constrained by the same syntactic conditions as φ -agreement relations, which are captured under the definition of Agree given above, supporting the hypothesis that Binding is powered by Agree.

First of all, anaphors morphologically often covary with their antecedent. Consider the following examples from English in (53) or Hungarian in (54).

- (53) a. **Adele**_{*i*} introduced **herself**_{*i*}/***himself** to the new boss.
 b. **Ben**_{*k*} introduced **himself**_{*k*}/***herself** to the new boss.

(54) *Hungarian*

- a. **A gyerek**_{*i*} látta **magát**_{*i*} a tükörben.
 the child.NOM see.3SG.PST.DEF REFL.3SG.ACC the mirror.in
 ‘The child saw himself in the mirror.’
 b. *pro*_{*i*} láttam **magamat**_{*i*} a tükörben.
 see.1SG.PST REFL.1SG.ACC the mirror.in
 ‘I saw myself in the mirror.’ (Törkenczy 1997:50)

In example (53), the form of the reflexive anaphor *herself* depends on the features of *Adele*: it is feminine singular. That becomes obvious if one replaces *Adele* by *Ben*; the reflexive anaphor must then obligatorily become masculine singular. In other words, the φ -features of an anaphor must match those of its antecedent. Similarly, in Hungarian (54), the anaphor *maga* obligatorily varies in person and number with the antecedent. Morphological covariance suggests a syntactic link of the same type as that established by Agree relations and in particular φ -agreement.

Beyond the morphological parallel, which will be discussed further and in more nuances in 2.3.1.2, several structural similarities between agreement and anaphoric binding

accredit the claim that Agree relations are at play in both cases. C-command constitutes the basic requirement for binding: an anaphor can only be bound by a c-commanding antecedent. In (55), as already seen earlier, the anaphor can only be bound by the c-commanding DP₁ *Adele's sister*, but not by *Adele*, which does not c-command it.⁷

- (55) [DP₁ [DP₂ Adele_i's] sister_j] loves **herself**_{*i/j}.

Additionally, in many languages, binding is phase-bound and obeys the PIC. This is for instance the case of English or Punjabi. In (56), the anaphor *herself*, located in the embedded clause, may not be bound by an antecedent like *Sabrina* located in the matrix clause. The same facts carry over in Punjabi (57), where the embedded anaphor *apneaap* can only be anteceded by a DP located in that same embedded clause, such as *Miraa* in (57b). When no such local antecedent is available, the anaphor is ungrammatical and must be replaced by the pronoun *o* instead.

- (56) a. ***Sabrina**_i thinks [that **herself**_i/she_{i/j} should win this trial].
 b. ***Sabrina**_i thinks [that Paul_k will call **herself**_i/her_{i/j}].

- (57) *Punjabi*

- a. **Karan-ne**_i keyaa [ki ***apneaap**_i/o_{i/j} kal najaar jaayegaa].
 Karan-ERG say.PFV that *REFL/3SG tomorrow market go.FUT.MSG
 'Karan_i said that he_i will go to the market tomorrow.'
 b. **Karan-nuu**_i lageyaa [ki Miraa_j **apneaap-nuu**_{*i/j}/o-nuu_{i/j} kal
 Karan-DAT feel.PFV that Mira *REFL-ACC/3SG-ACC tomorrow
 phone karegi].
 phone go.FUT.MSG
 'Karan_i thinks that Mira_j will call him_i tomorrow.' (Gurmeet Kaur p.c.)

As these examples illustrate, in both languages, the clause, i.e. the CP, seems to form a natural boundary for binding, like it does for φ -agreement. Phase-boundedness of anaphors notably does not hold in every language: some languages, such as Tamil or Thai, have long-distance anaphors, i.e. anaphors that can be bound across clausal boundaries. Since the focus of this thesis is on local anaphors only, I leave the question of long-distance binding aside. Note that attempts have been made to unify local and long-distance binding under the umbrella of Agree. Sundaresan (2012, 2014) (see also Charnavel 2019) has for instance proposed that the long-distance perspectival anaphor *taan* in Tamil is bound not by the subject in the matrix clause, but instead by a silent pronoun in the specifier of

⁷This excludes cases of perspectival anaphora involving instances of backward binding (Sundaresan 2012), or donkey anaphora which do not require c-command (see e.g. Bassi and Longenbaugh 2018), two cases that constitute separate classes of anaphors. The c-command condition also seems to be obviated in languages like Chinese in which an anaphor can be bound by an NP contained within the subject (a subcommanding antecedent, Huang and Tang 1992).

a Perspectival Phrase (PerspP), a syntactic representation of perspective or mental state located in the left periphery of the embedded clause. This mechanism accounts for the perspectival reading of the anaphor, while preserving the locality of Agree, which remains phase-bound, even in the case of apparent long-distance anaphors. The question of long-distance binding is thus not necessarily problematic for the theory of anaphoric binding under investigation here.

Finally, the last point of comparison between the locality conditions of agreement and binding pertains to intervention effects. When it comes to local anaphors, discussion of clause-internal intervention effects is not commonly discussed in the literature (although see [Lechner \(2012\)](#) and [Büiring \(2005:43-44\)](#) for discussion of this issue, albeit mostly from the perspective of compositional semantics).⁸ A prominent environment to look at is that of ditransitives, in which intervention effects involving reflexive anaphors have been sporadically reported in the literature. This is most famously the case of French, in which a DO reflexive in a double object construction leads to ungrammaticality ([Anagnostopoulou 2005](#); [Bonet 1991](#); [Herschensohn 1980](#); [Kayne 1975](#)). In example (58a), a DO anaphor cannot be bound by the subject, presumably due to intervention of the IO. In contrast, an IO reflexive can do so without problem as no such intervention arises, as shown by the grammaticality of (58b).

- (58) a. *Il_i se_i lui_j présente.
 3SG.NOM 3REFL.ACC 3SG.DAT introduce.PRS.3SG
 Int: ‘He_i introduces himself_i to him/her_j.’
 b. Il_i se_i le_j présente.
 3SG.NOM 3REFL.DAT 3SG.ACC introduce.PRS.3SG
 ‘He_i introduces him_j to himself_i.’

This phenomenon has often been analyzed as a Person-Case Constraint effect, but generally neither cited as a binding-related intervention effect nor known as a larger trend. For instance, [Malchukov, Haspelmath, and Comrie \(2010:30\)](#) note that "when the reflexive marker is argument-like, there are normally no particular restrictions in ditransitive constructions". Yet similar effects have been reported (often only in passing) in Icelandic ([Anagnostopoulou 2005](#)), Southern Tiwa ([Baker 2008](#); [Harbour 2009](#); [Rosen 1990](#)), Mohawk ([Baker 1996](#)), Tzotzil ([Aissen 1987:113](#) cited in [Malchukov et al. 2010](#)), Classical Nahuatl ([Baker 2008](#)) or Lubukusu ([Sikuku 2012](#)). Intervention effects are by contrast absent in languages like English, in which a DO reflexive can be bound by the subject in a double object construction despite the presence of a dative IO, as in (59a), and so can an IO reflexive in a *to*-ditransitive, in which the IO is lower than the DO (59b) (see again [Lechner \(2012\)](#) on how to approach such cases for compositional semantics, which involves raising of the anaphor).

⁸Thanks to Sascha Alexeyenko for pointing these out to me.

- (59) a. John_i showed Mary_j **himself**_i.
 b. John_i shows Mary_j to **himself**_i.

Similarly, no intervention for binding arises in Albanian double object constructions, where direct objects are lower than indirect objects: an accusative DO anaphor can perfectly well be bound by the subject, despite intervention of the dative.

- (60) Artisti_i ia tregoi **veten**_{i/j} Dritës_j
 artist.NOM CL.3SG.DAT/ACC showed self.ACC Drita.DAT
 ‘The artist_i showed Drita_j himself_i.’ (OR ‘The artist_i showed Drita_j herself_j.’)
 (Williams 1988:161)

The exploration of local intervention effects in ditransitives involving reflexives is the focus of this thesis, which will investigate the reality of this claim for some of the languages listed above and extend it to the languages Swahili (based on fieldwork) and Warlpiri (based on data from Legate 2002b). The data introduced in further chapters will thus strengthen the already well-established empirical parallels between Agree and Binding, by showing that reflexive binding in many languages meets the predictions of an analysis in terms of Agree, namely that it be subject to intervention effects. The proposed analysis will also strive to account for the presence vs absence of such intervention effects in languages like English or Albanian.⁹

This section has shown that beyond the conceptual appeal of identifying Binding with an Agree operation, there exist many empirical parallels between both phenomena. First, anaphors morphologically covary with their antecedents, whose φ -features they are dependent on. Furthermore, reflexive binding shares with Agree its structural conditions: a c-command relation must hold between an anaphor and its antecedent, they must be in the same CP, and as will become apparent throughout the thesis, their relation is subject to intervention effects. The discussion of the role of case and the activation condition is delayed to section 2.3.1.2. The many empirical parallels between anaphoric binding and agreement thus form a strong case in favor of reducing Binding to an Agree operation. In the next section, I introduce the main features of theoretical approaches that have sought to account for binding as Agree.

⁹The discussion of intervention effects in cases of long-distance binding is perhaps more detailed, although the empirical generalizations are uneven. Overall, long-distance anaphors do not seem to necessarily be subject to intervention effects (e.g. Gujarati, Tamil). Nonetheless, they have been reported to arise under certain conditions. For instance, the Chinese long-distance anaphor *ziji* is subject to a blocking effect, under which the anaphor can take any antecedent as its nearest potential antecedent, unless a potential antecedent with different φ -features appears in a higher clause (Cole & Sung 1994).

2.2.3 Binding as φ -Agree

Given that local anaphoric relations obey the same structural conditions as other phenomena underlied by Agree, many recent minimalist accounts have modeled Binding as Agree (Heinat 2008; Hicks 2009; Reuland 2011; Rooryck & Vanden Wyngaerd 2011). Under this view, Binding is construed as a syntactic relation between a probe with an unvalued feature (the anaphor) and a goal that values it (the antecedent). For expository purposes I model this system here assuming with Heinat (2008); Murugesan (2019); Reuland (2011); Rooryck and Vanden Wyngaerd (2011) that the features that underlie binding relations are φ -features. However, as I will argue next in 2.3, this is by no means the only possibility.

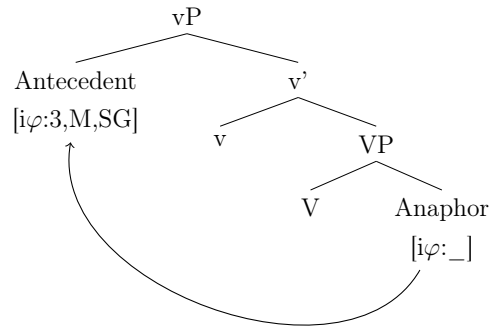
Analyses of binding as Agree rely on the notion that anaphora are defined by a form of featural deficiency, which translates to an unvalued feature on anaphoric items and is at the root of the syntactic and interpretative dependency of anaphors (Bouchard 1984; Burzio 1991; Kratzer 2009; Reinhart & Reuland 1993; Rooryck & Vanden Wyngaerd 2011). Non-anaphoric items, i.e. pronouns and other nominals, are born with a corresponding valued feature, which allows them to act as antecedents. The anaphor's features are furthermore taken to be interpretable, like those of all nominals, following the independence of valuedness and interpretability (Pesetsky & Torrego 2007). Indeed, the features of an anaphor must be interpretable at the interface, and therefore must not be deleted during computation. An anaphor is thus distinguished from a pronoun by inherent unvaluedness only, as schematized below.

- (61) a. Anaphor: [$i\varphi$:_]
 b. Pronoun: [$i\varphi$:3,M,SG]

In order to obtain a φ -value, anaphors must Agree with their antecedents (a pronoun or a DP with a valued φ -feature), resulting in matching φ -feature values. This φ -Agree relation ensures coreference between the anaphor and its antecedent.

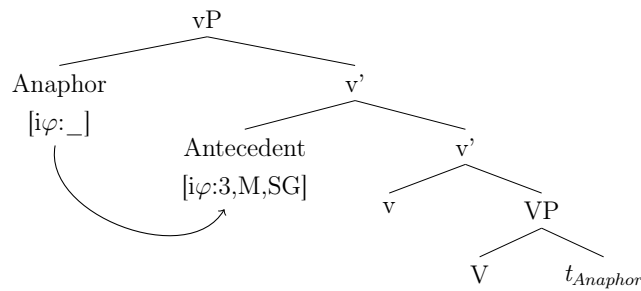
In binding relations, we have seen that the antecedent must always c-command the anaphor. This translates as an Agree configuration in which the goal (the antecedent) c-commands the probe (the anaphor), corresponding to an upward Agree configuration as introduced in 2.2.1.2. Binding relations can then successfully be captured by upward Agree as defined earlier, adding an empirical piece of evidence in favor of upward Agree. Such a model is adopted by Hicks (2009) (albeit not in terms of φ -features) or more recently Murugesan (2019), and schematized below.

- (62) *Binding as upward φ -Agree*



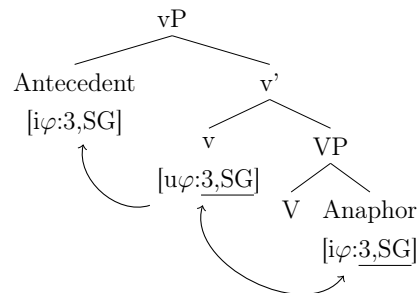
While I adopt an analysis of binding as upward Agree, note that some accounts of Binding as Agree, such as [Heinat \(2008\)](#), [Reuland \(2011\)](#) or [Rooryck and Vanden Wyngaerd \(2011\)](#), assume that Agree is a downward operation. In order to maintain this assumption, they however have to assume that anaphors covertly move to a position c-commanding their antecedent (e.g. the highest specifier of vP).

(63) *Binding as downward φ -Agree*



Finally, some accounts ([Heinat 2008](#); [Kratzer 2009](#); [Reuland 2011](#)) propose that the relation between the antecedent and the anaphor is not a direct one, but that it is mediated by a functional head, taken to be v .

(64) *v-mediated binding*



One of the insights behind this hypothesis is that semantic binding is tied to verbal functional heads, which introduce semantic binders (λ -operators, [Adger and Ramchand](#)

2005; Kratzer 2009) or reflexivization functions (Ahn 2015; Reinhart & Reuland 1993), thus creating reflexivized predicates. If verbal functional heads such as *v* are taken to be the true syntactic antecedents of anaphors, and if *v* heads, as is standardly assumed, introduce external arguments (Kratzer 1996), binding of an object anaphor from *v* creates a reflexive predicate: the external argument introduced by *v* and the pronoun bound by *v* receive coreferential interpretations. This idea ties in with Reinhart and Reuland’s (1993) insight that syntactic conditions on binding apply at the predicate level (cf notions of reflexive and reflexively-marked predicates) and their proposal that some anaphors (SE-anaphors) can only occur as arguments of lexically reflexive predicates, since on top of being referentially dependent (-R) like all anaphors, they also lack a reflexivizing function themselves, which is needed by virtue of their Principle B.

Empirically, Kratzer (2009) also shows that bound variable interpretation of possessive pronouns in German is only possible if there is φ -feature matching between the possessive pronoun and the closest verbal functional head, suggesting that verbal inflection might provide a necessary link for binding relations and motivating its mediating role at the syntactic level as well. In chapters 4 to 7, I will show that more empirical evidence for the mediating role of *v* in syntax is provided by (i) the existence of a special agreement marker on *v* whenever an anaphoric object is bound by the subject in languages like Swahili (aka anaphoric agreement) and (ii) the local subject-orientation of reflexives in the languages under study, which gets straightforwardly explained if *v* is involved (Ahn 2015). I will propose that the requirement that *v* must mediate the Agree relation between the anaphor and its antecedent is syntactically encoded through its featural specification.¹⁰

Although the details of the implementation vary, accounts thus converge on the idea that anaphoric binding can be reduced to Agree. This successfully achieves the aims of a minimalist account of binding, reducing it to a primary syntactic operation whose assumptions are independently motivated. Binding is thus constrained by more general syntactic principles, such as c-command or locality, thereby accounting for the fact that binding is derived in syntax.

¹⁰Heinat (2008) resorts to the mediation of *v* chiefly on the grounds of internal theoretical consistency, in order to maintain Downward Agree without movement of the anaphor. In his system, *v*, a φ -agreement probe, probes down to value its unvalued φ -features. It finds the object and Agree applies. However, as the φ -features of the anaphoric object are unvalued, the features of *v* and the object are shared (as per Pesetsky and Torrego’s definition of feature sharing) but remain unvalued. Upon subsequent merger of the subject, which has an unvalued case feature, it probes down in order to value its case feature, finds the unvalued φ -features of *v* and values them. This in turn leads to the valuation of the φ -features of the anaphor, as a result of feature sharing. While I do not share the motivations behind this account, the system that I adopt shares many insights with Heinat’s.

2.3 The features of local anaphora

The preceding section has shown that binding in minimalism can be reduced to an Agree operation, which given the definition of Agree translates to a featural dependency. The question thus arises of which features are at play in the Agree relation between an anaphor and its antecedent. Two main hypotheses have been put forth in the literature. The first family of accounts, already introduced above, take binding to be undertaken by φ -feature agreement (Heinats 2008; Kratzer 2009; Murugesan 2019; Reuland 2011; Rooryck & Vanden Wyngaerd 2011). Another, chiefly represented by Hicks (2009), argues that binding is realised through agreement for a separate type of syntactico-semantic features identified as referential or index features, reflecting the fact that binding is first and foremost a referential dependency. In this section, I will review the arguments for both approaches. Starting with the φ -approach in 2.3.1, I will introduce its main motivations (in 2.3.1.1), before arguing that it faces several challenges (2.3.1.2). In 2.3.2, I will then introduce index features, formalized as [ID]-features, as an alternative to φ in binding, and show that their existence in syntax is independently motivated in other domains than binding (2.3.2.3). Note that the general opposition between φ and [ID]-features as presented here does not imply that all anaphors are created featurally equal, and does not exclude the possibility of orthogonal featural specifications distinguishing different classes of anaphors, such as [DEP]-features which characterize perspectival anaphors (Sundaresan 2020).

2.3.1 The φ -hypothesis

2.3.1.1 Supporting evidence for the φ -hypothesis

φ -based accounts of anaphoric binding argue that the syntactic relationship between an anaphor and its antecedent is one of agreement between φ -features, similar to the one that unites for instance a DP and a φ -agreeing verb. Several arguments can be put forth in support of such a hypothesis.

First of all, φ -features are the archetypal features taking part in Agree operations. Their existence is uncontroversial, and they can be seen at work elsewhere in the grammar, underlying dependencies between syntactic elements, most famously of course between φ -agreement controllers and φ -agreement targets. It is therefore theoretically economical to co-opt existing and independently motivated features for other purposes such as binding. But there are also more empirically-based reasons to consider φ -features for binding.

To begin with, anaphors typically match the φ -features of their antecedents, as already discussed above. This φ -matching is straightforwardly explained if the relation uniting the anaphor and its antecedent is a φ -agreement one.

Additionally, supporting the assumption that some anaphors would be born φ -deficient,

it is observed that anaphors are cross-linguistically morphologically underspecified for φ -features (Rooryck & Vanden Wyngaerd 2011: 49). In other words, anaphoric paradigms make fewer φ -distinctions than pronominal paradigms. For instance, the German 3rd person anaphor *zich* is only specified for 3rd person, while a 3rd person pronoun like *ihn* is additionally specified for number (singular), gender (masculine) and case (accusative). This state of affairs is apparently common across languages, although it is not necessarily always the case – many languages have anaphors that show the full available range of φ -distinctions (e.g. English). However, the reverse asymmetry, i.e. where the anaphoric paradigm shows rich φ -distinctions and the pronominal paradigm is underspecified, is apparently unattested. Under the assumption that the morphological absence of φ -features implies their syntactic absence, this observation is taken as an argument that anaphors are not born with full φ -sets to begin with (Bouchard 1984; Burzio 1991, 1996; Kratzer 2009; Reinhart and Reuland 1993; see also the following section for a functional explanation of this phenomenon by Rooryck and Vanden Wyngaerd 2011).

Another argument in favor of the φ -hypothesis is the Anaphor-Agreement Effect (Mugesan 2019; Rizzi 1990a; Tucker 2011; Woolford 1999). One of the premises of the φ -hypothesis is that anaphors lack a φ -value until they get valued by agreeing with their antecedent. Given the assumption that derivations are built bottom-up and cyclically, this approach predicts that any φ -probe that would target the anaphor before it has agreed with its antecedent would fail to trigger φ -agreement, due to absence of φ -values. Such a prediction seems to be borne out, and is known as the Anaphor-Agreement Effect (henceforth AAE). The AAE was first described by Rizzi (1990a), and can be formulated as follows.

- (65) *The Anaphor-Agreement Effect (AAE)*
Anaphors cannot control φ -covarying agreement.

Rizzi's original formulation of the AAE was based on the observation that nominative anaphors are banned in Italian and Icelandic, languages where arguments in the nominative usually control φ -agreement. This is illustrated below for Italian: in (66a), the pronominal 1st person plural nominative subject controls agreement on the finite auxiliary. Similarly, in (66b), the verb *interessare* 'to interest' takes a dative subject and a nominative object, which controls φ -agreement on the finite verb, as in (66b).

- (66) a. **Noi** abbiamo conosciuto tutta la famiglia.
1SG.NOM have.PRS.1PL know.PTCP all the family
'We have met the entire family.'
- b. A me interessa solo **loro**.
to 1SG.DAT interest-PRS.3PL only 3PL.NOM
'I am interested only in them.'
- (Rizzi 1990a: 32–33)

Given that local anaphors most often occur as objects, the AAE can be observed in dative-nominative constructions such as (66b) above. In the following example, an anaphor in the nominative position, i.e. the agreement controlling position, unexpectedly makes the sentence ungrammatical.

- (67) *A loro_i interest-ano solo se stessi_i.
 to 3PL.DAT interest-PRS.3PL only themselves.NOM
 Int: ‘They_i are interested only in themselves_i.’ (Rizzi 1990a: 32–33)

As Rizzi (1990a) notes, the ungrammaticality of (67) cannot straightforwardly be attributed to other factors. For instance, dative subjects can bind an object anaphor if it is not nominative, strongly suggesting that no structural problems can be invoked. Contrast (67) with (68) below, where the object anaphor is in the genitive case (non-agreement controlling) and yields a grammatical sentence.

- (68) A loro_i importa solo di se stessi_i.
 to them.DAT matter.PRS.3SG only of themselves.GEN
 Lit: ‘To them_i matter only themselves_i.’ (Rizzi 1990a: 32–33)

The same facts hold in Icelandic, where reflexive anaphors, which are also long-distance anaphors, are banned as objects in dative-nominative constructions. Such constructions are only grammatical with an anaphor embedded in a preposition, as shown in (69), making it inaccessible for verbal agreement. A similar contrast occurs when the anaphor is the subject of the embedded clause as in (70): while a nominative anaphoric subject is ungrammatical, a dative one is perfectly acceptable.

- (69) *Icelandic*
 a. *Sigga_i telur að mér líki sig_i.
 Sigga thinks that me.DAT likes.SBJV self.NOM
 Int: ‘Sigga_i thinks that I like himself_i.’
 b. Sigga_i telur að mér líki vel **við** sig_i.
 Sigga thinks that me.DAT likes.SBJV well with self
 ‘Sigga_i thinks that I like himself_i.’ (Rizzi 1990a: 33)
- (70) a. *Jón_i segir að sig_i elski Maria.
 Jon says that self.NOM loves.SBJV Maria
 Int: ‘John_i says that he_i likes Maria.’ (Rizzi 1990a: 33)
 b. Hún_i sagði að sér_i þætti vænt um mig.
 she said that self.DAT was.SBJV fond of me
 ‘She_i said that she_i was fond of me.’ (Maling 1984)

One could argue that nominative anaphors are simply lacking in the paradigms of Italian and Icelandic, as argued of Icelandic by Maling (1984). Yet, Rizzi (1990a) argues that the existence of a cross-linguistic paradigmatic gap would be surprising. Further-

more, he demonstrates that Italian 1st and 2nd person reflexives are simply formed by the combination of a pronoun (e.g. *me* or *voi*) and the intensifier *stesso*. The fact that these pronouns independently exist in the nominative constitutes, according to him, an argument against a paradigmatic gap in Italian.

Beyond the ban on φ -controlling nominative anaphors in Italian and Icelandic, the Anaphor-Agreement Effect has been reported to hold across several languages, which appear to exhibit different strategies in order to avoid covarying φ -agreement of a verbal target with an anaphoric controller. I will briefly introduce four such strategies, namely default agreement, agreement switch, protected anaphora and anaphoric agreement.

In some languages, the inability of anaphors to trigger φ -agreement is manifested by the presence of default agreement on the verb whenever its controller is anaphoric. It is argued to be the case in Albanian (Woolford 1999) or in Shona (Murugesan 2019, based on Storoshenko 2016). In Albanian dative-nominative constructions, if the object is an anaphor, agreement on the verb remains 3rd person singular, i.e. default, regardless of the person of the antecedent. Note that here the anaphor is nominative, excluding the possibility of a paradigmatic gap in Albanian.

- (71) a. Dritës i dhimset vetja.
 Drita.DAT CL.3SG.DAT pity.3SG.PST.NACT self.NOM
 ‘Drita pities herself.’ (Massey 1990: 135 in Woolford 1999: 270)
- b. Vetja më dhimset.
 self.NOM CL.1SG.DAT pity.3SG.PST.NACT
 ‘I pity myself.’ (Hubbard 1985: 91 in Woolford 1999: 271)

Another class of languages, embodied by Kutchi Gujarati (Murugesan 2019; Murugesan & Raynaud to appear; Patel-Grosz 2014) and Tamil (Sundaresan 2012, 2014), switches to a different agreement controller when the agreeing element is anaphoric. In the perfective aspect in Kutchi Gujarati, verbs normally agree with their objects.

- (72) John Mary-ne ad-y-i
 John.NOM Mary-ACC touch-PFV-F.SG
 ‘John touched Mary.’ (Patel-Grosz 2014: 1)

However, when this object is anaphoric, agreement seems to target the subject (73a) or a part of the subject, as seen in (73b), where agreement targets the first conjunct. In (73a), although the DP headed by the reflexive is inflected with plural morphology (as argued by Patel-Grosz 2014), plural agreement is not reflected on the verb, which instead agrees for the gender and number of the subject. Even more clearly, in (73b), the verb can be seen to exceptionally agree with the first conjunct of the coordinated subject, *Mary*, instead of the anaphor, which would yield plural agreement as it refers to a plural antecedent.

- (73) a. Mary **e-na** **mota potha-ne** jo-y-i/*a
 Mary.NOM 3SG-GEN.PL big.PL self-ACC see-PFV-F.SG/*PL
 ‘Mary saw her fat self.’
- b. [Mary ane John] **pot-potha-ne** jo-y-i/*a
 Mary.NOM and John.NOM themselves-ACC see-PFV-F.SG/*PL
 ‘Mary and John saw themselves.’ (Patel-Grosz 2014: 7)

Other languages, such as Greek, Selayere, Georgian (Woolford 1999), Inuit (Yuan 2018), Hindi (Murugesan 2019) or Basque (Preminger 2019a), are argued to have recourse to protected or embedded anaphora. In these languages, the anaphor is analyzed as embedded in a bigger DP shell (e.g. Greek) or protected by a non-agreeing, oblique case (e.g. Inuit), which keeps it from having to agree with the verb, which instead targets the 3rd person singular features of the exterior shell.

In Greek, as can be seen in the examples in (74), the anaphor is a complex DP built according to the template *determiner-SELF-possessive pronoun*. Assuming that the anaphor, i.e. the φ -deficient element, is *eafton* ‘self’, it finds itself embedded in a bigger possessive DP (*the self of X* or *X’s self*), whose φ -features correspond to 3rd person singular. The verb accordingly agrees for 3rd singular, as does the clitic *ton* that doubles the complex anaphor.

- (74) *Greek: possessor structure*
- a. I Maria ton thavmazi [ton **eafton**
 the.NOM.F.SG Maria CL.ACC.M.SG admires DET.ACC.M.SG self
tis].
 3.F.SG.GEN
 ‘Maria admires herself.’
- b. Eggo ton xero [ton **eafton mu]**.
 I CL.ACC.M.SG know DET.ACC.M.SG self 1.F.SG.GEN
 ‘I know myself.’

In Inuktitut, the anaphor *ingmi* obligatorily bears modalis case, an oblique case that is not targeted by verbal agreement. The following minimal pair shows the contrast between a non-reflexive object, which bears absolutive case and triggers covarying φ -agreement, and a reflexive object with modalis case, which is not indexed on the verb.

- (75) *Inuktitut: obligatory oblique case*
- a. Taiviti-up Kiuru nagli-gi-**janga**.
 David-ERG Carol.ABS love-TR-3SG.SBJ/3SG.OBJ
 ‘David loves Carol.’
- b. Taiviti ingmi--nik nagli-gi-**juq**.
 David.ABS self-MOD love-TR-3SG.SBJ
 ‘David loves himself.’ (Yuan 2018: 201)

Finally, Woolford (1999) reports that one last class of languages, exemplified by Swahili, seems to circumvent the AAE by using a special type of agreement, labelled anaphoric agreement, whenever the controller is anaphoric. In (76a), the non-anaphoric object *Halima* triggers φ -covarying agreement on the verb (for noun class and number), in this case class 1 *-m-*. In contrast, when the object is reflexive as in (76b), the expected class 1 agreement is ungrammatical, and a dedicated reflexive agreement marker *-ji-* surfaces instead.

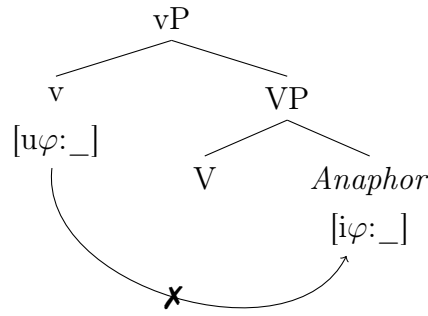
- (76) a. Ahmed a- na- m- penda **Halima**.
 1Ahmed SM1- PRS- OM1- love 1Halima
 ‘Ahmed loves Halima.’
- b. Ahmed a- na- ji/*m- penda (**mwenyewe**).
 1Ahmed SM1- PRS- RFM/*OM1- love (himself)
 ‘Ahmed loves himself.’ (Vitale 1981:137)

Once again, this language does not have regular φ -covarying agreement with its anaphors: the use of dedicated anaphoric agreement seems to allow Swahili to evade the restriction imposed by the AAE.

Summing up, anaphors cross-linguistically seem to either occur only in non- φ -agreeing positions or cases, or when they do, to be unable to trigger covarying φ -agreement. This connection is articulated by Murugesan (2019), based on insights from Tucker (2011). It is argued that the AAE follows from the unvaluedness of anaphors’ φ -features and from the order of operations that follows from strict cyclicity. If one assumes that *v* is the locus of object agreement, it logically follows from the φ -hypothesis that at the time *v* probes down to Agree, an anaphoric object has not yet been valued by agreement with the subject, which has not yet been merged into the structure (in Spec,vP). As schematized below, this results in a vacuous φ -Agree operation between the anaphor and the agreeing probe, yielding either default agreement, agreement switch or a crash in the derivation (depending on the language’s repair mechanism).¹¹

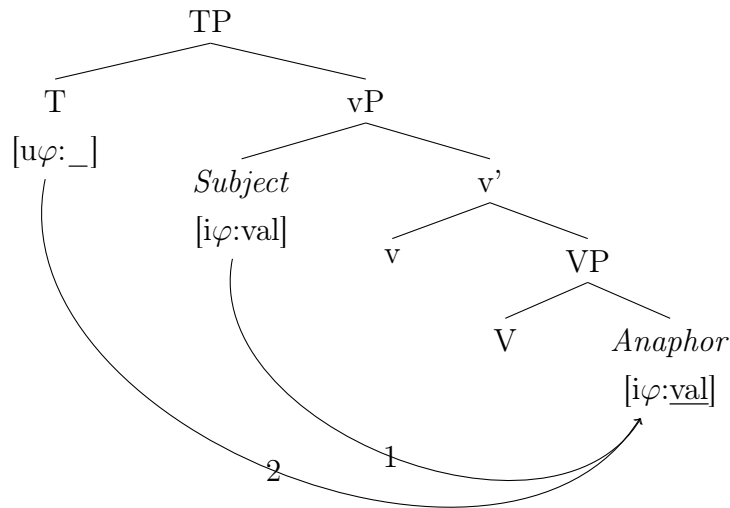
(77)

¹¹Note that the AAE and the corresponding analysis introduced here are incompatible with and indeed argue against *v*-mediated binding (Wurmbrand 2012). If the object anaphor is valued through some φ -feature sharing relation involving the external argument and *v*, then *v* is expected to reflect the shared φ -features of the two DPs, which is exactly the opposite of what seems to be happening in those cases described by the AAE.



The validity of this analysis is strengthened by the [Murugesan](#)'s discovery that the AAE can be violated precisely in those languages (such as Ingush or Standard Gujarati) in which the object agreement probe is located higher than the subject, e.g. T. In such languages, an anaphor, having been valued by the subject's φ -features before merger of the agreeing probe, can control φ -covarying agreement on the latter.

(78)



The view that anaphoric binding proceeds from φ -agreement therefore provides an elegant and efficient account of the AAE and its violations. The differential behavior of anaphors with regard to φ -agreement, unified under the umbrella of the AAE, is taken as evidence for their φ -deficiency: it is because they lack φ -features that they fail to trigger covarying φ -agreement and that languages deploy the above-described strategies to avoid agreement with the anaphor. Together with the φ -matching of anaphors with their antecedents and their φ -underspecification cross-linguistically, the AAE at first sight constitutes a strong argument for the φ -based approach to binding. Yet, despite its initial appeal and its simplicity, the φ -agreement approach to binding also raises a number of issues.

2.3.1.2 Problems with the φ -hypothesis

First of all, the φ -hypothesis rests on the premise that a DP that lacks a complete set of φ -values is incapable of independent reference. In other words, φ -deficiency equals referential deficiency. Indeed, it is not straightforward that referential properties such as identity are encoded by φ -features. While φ -features can be argued to restrict the reference of a DP (e.g. by introducing presuppositions, Heim and Kratzer 1998; Sudo 2012), they cannot be assumed to fully determine the reference of a DP. As much is argued by Hicks (2009: 112), who writes: "[...] while the shared reference of an anaphor and its antecedent perhaps naturally implies that the two share the same φ -features, it is not at all clear that referential properties are encoded in φ -features [...] Essentially, what is at stake in anaphor binding is referential dependency, not simply a φ -feature dependency".

Furthermore, binding and φ -agreement diverge from one another on several empirical points. First, unlike verbal φ -agreement, anaphoric binding is insensitive to case. The following example from Tamil shows that, like in many languages, while nominative subjects such as *Kohli* in (79a) control person, number and gender agreement on finite verbs, subjects bearing dative case as in (79b) may not, resulting instead in default 3rd person neuter singular agreement. φ -agreement is thus seen to be case-sensitive.

- (79) a. **Kohli** Meena.v-ai pidi-t-**aan**
 Kohli.NOM Meena-ACC see-PST-3MSG
 'Kohli saw Meena.'
- b. **Kohli-ukku** Meena.v-ai pidi-t-**atu/*-aan/*-aal**
 Kohli-DAT Meena-ACC like-PST-3NSG/*-3MSG/*-3FSG
 'Kohli liked Meena.' (Murugesan 2019: 19)

In contrast, binding appears insensitive to case distinctions. As can be seen in the next example, both nominative and dative nominals can act as antecedents for anaphors (as also shown in the Italian examples in (66) above).

- (80) a. **Kohli_i** **tan_i-ai** kanadi-le paar-t-aan
 Kohli.NOM REFL-ACC mirror-LOC see-PST-3MSG
 'Kohli_i saw himself_i in the mirror.'
- b. **Kohli_i-ukku** **tan_i-ai** mattum taan pidi-t-atu
 Kohli-DAT REFL-ACC only REFL.EMPH like-PST-3NSG
 'Kohli_i liked only himself_i.' (Murugesan 2019: 19)

Under approaches that equate binding to φ -agreement, the contrast between (79) and (80) is unexpected. Indeed, if φ -probes are case-discriminating, it is not clear why they would be so only in the case of verbal φ -agreement and not in the case of φ -based anaphoric

binding.¹²

Additionally, it is not the case that the φ -features of anaphors always match those of their antecedents. Such mismatches undermine the premise that in order to bind an anaphor, the φ -features of the antecedent must be transmitted or shared with it. Cases of mismatches can be found in English. Ahn (2019) and Sundaresan (2020) give examples from different types of context where φ -mismatches arise between an anaphor and its antecedent. The first class of mismatches is the case of so-called imposters (Collins & Postal 2012), whereby a 3rd person DP, such as *your Honor* or *Mommy*, is used by the speaker to refer to themselves or the addressee instead of a 1st or 2nd person pronoun. As shown in (48), when the antecedent is an imposter, the anaphor may not match its 3rd person feature, but rather have a 1st or 2nd person form, matching the intended reference of the imposter.

(81) *Imposters*

- a. Mommy and Daddy need some time to ourselves/themselves.
- b. Does your Honor doubt yourself/herself?

Similarly, with group nouns such as *the U.N.* or *the committee*, and with quantified NPs such as *each of us*, which are syntactically singular but semantically plural, the anaphor may either match the 3rd person singular φ -features of the antecedent, or show semantic agreement (see also Smith 2015, 2017). In (82a), semantic agreement corresponds to plural number agreement, referring to members of the U.N. In (82b), the anaphor may either match the 3rd person singular antecedent *each of us* in both person and number (*herself*), just person (*themselves*) or show a complete mismatch (*ourselves*).

(82) *Group/quantified NPs*

- a. The U.N. finds itself/themselves in a difficult position.
- b. Each of us is proud of ourselves/themselves/herself.

What these φ -mismatches between anaphor and antecedent show is that reflexive anaphors do not always get their φ -features valued by the local antecedent of binding. If they were, they would be expected to always match the antecedent's value, contrary to fact. In fact, as pointed out by Preminger (2019a), " φ -feature matching is neither a necessary (as pointed out by mismatches) nor sufficient condition for coreference", as two arguments can have matching φ -features but disjoint references, even in the case of 1st and 2nd person items, as illustrated below.

¹²Murugesan (2019) addresses this issue by suggesting that anaphors differ from verbs in two respects which could potentially explain this discrepancy. First, anaphors bear interpretable φ -features while verbal φ -feature are uninterpretable. Second, anaphors being nominal, they additionally need to be valued for case while functional heads do not.

(83) *<pointing to different individuals in succession>*

You should leave, but **you** should stay here.

Preminger (2019a)

Cases of φ -mismatches such as (82) have been addressed in the literature by assuming two different types of φ -agreement, namely syntactic vs semantic φ -agreement (Smith 2015, 2017, see also discussion in Sundaresan 2020). Crucially, it is not clear how this line of analyses could be applied to binding, as it would require to postulate that binding involves both types of φ -agreement. φ -mismatches thus remain a challenge for theories of binding as φ -Agree.

Finally, a word can be said about the argument of morphological underspecification introduced earlier in 2.3.1.1, according to which anaphors frequently fail to show the full range of available φ -distinctions as opposed to pronouns, taken to be a manifestation of their inherent φ -deficiency. However, underlying φ -deficiency is by no means the only way to account for morphological underspecification of anaphors. In fact, Rooryck and Vanden Wyngaerd (2011), who incidentally defend a φ -based approach, argue that morphological underspecification of anaphors has a functional explanation. A rich φ -specification on pronouns serves the purpose of efficiently restricting their reference. In contrast, since the reference of an anaphor is determined by that of its antecedent, no such extra specificity is needed from φ -features. To them, only "referential underspecification follows from the presence of unvalued [φ]-features" (which I have argued to be independently problematic), "whereas morphological underspecification, if present, is a property of the morphology of a language" (Rooryck & Vanden Wyngaerd 2011: 45). The latter is therefore not necessarily correlated with the former.

Summing up, in 2.3.1.1 I have introduced the basic claims of φ -based approaches to binding, as well as the main arguments in their support, namely (i) that φ -features are independently motivated in the grammar, (ii) that anaphors typically match the φ -features of their antecedent and (iii) tend to be morphologically underspecified for φ -distinctions as opposed to pronouns, and finally (iv) that anaphors cross-linguistically do not seem to be able to control φ -agreement on verbs, a generalization known as the Anaphor-Agreement Effect. However, in 2.3.1.2 I have shown that the φ -hypothesis also faces several challenges: first, (i) the equation between φ -deficiency and referential deficiency is problematic. Furthermore, unlike φ -agreement, (ii) binding is not sensitive to case, and (iii) it is possible for anaphors to show φ -mismatches with their antecedents, weakening the empirical parallels between binding and φ -agreement. Finally, (iv) morphological underspecification of anaphors can also be offered a functional explanation. Approaches of binding in terms of φ -Agree are thus not as strongly motivated as initially seemed to be the case, and although the arguments presented above are not fatal to such analyses, they leave several questions unanswered. The following section introduces a different approach based on referential features, and shows that it can answer some of these questions.

2.3.2 Referential features

One of the central conceptual problems for using φ -features for binding purposes were that φ -features can only constrain the domain of mapping for the reference of a DP, but not directly encode its reference or whether it covaries with another or not. To address this, it has been proposed that the syntactic relation between an anaphor and its antecedent is mediated by features that focus on the referential properties of anaphoric relationships, which have been dubbed referential features. In 2.3.2.1, I will introduce the notion of referential features and provide an overview of the proposal of Hicks (2009) to use such features in anaphoric binding. In 2.3.2.2, I will refine the definition of index features, and precisely formalize the feature that will be argued to underly binding dependencies in this thesis. Finally in 2.3.2.3, I will provide independent evidence for the use of referential features in syntax, therefore strengthening their legitimacy.

2.3.2.1 Referential features in anaphoric binding: [VAR]-features

The central requirement of a binding feature is that it is able to encode whether two DPs refer to the same individual or entity, i.e. are coreferent, or whether they designate two distinct referents. Hicks (2009) introduces such a feature and applies it within a theory of anaphoric binding. I will first introduce the basic elements of his proposal, before discussing more detailed characteristics of referential features.

Capitalizing on the link between anaphoric binding and variable binding, Hicks (2009) argues that the link between an anaphor and its antecedent is underlied by [VAR]-features (for variable). The idea is that being bound variables, anaphors bear a dedicated feature that obligatorily covaries with that of its antecedent. As for their values, [VAR]-features should encode the information necessary to determine whether the reference of the variable co-varies with another or not. To encode such referential information, Hicks (2009) proposes that [VAR]-features take an index ($i, j, k...$) or integer (1, 2, 3...) as value, which maps on to salient entities at LF.

Anaphors, which are referentially deficient or dependent, are assumed to enter the derivation with an unvalued [VAR]-feature. Antecedents, i.e. referential DPs and pronouns, bear an inherently valued [VAR]-feature. Anaphoric binding is achieved in syntax by agreement between the antecedent's and the anaphor's [VAR]-features, resulting in valuation of the anaphor's index value by the antecedent's, as depicted in (84).

$$(84) \quad \text{DP[VAR:i]} \dots \text{Anaphor[VAR:_]} \rightarrow \\ \text{DP[VAR:i]} \dots \text{Anaphor[VAR:i]}$$

Anaphors are thus flagged as referentially dependent by their initial lack of a value, and obtain their index value directly from their antecedent, guarantying a coreferent interpretation.

To Hicks (2009), [VAR]-features are distinguished from φ -features by their very nature. Indeed, he assumes that there exists two types of features: semanticosyntactic features, which are always legible at the LF interface, and morphosyntactic features, which are interpretable at PF but deleted before interpretation. [VAR]-features belong to the former kind, unlike φ -features, allowing them to play a role in the interpretation of DPs.¹³ In keeping with this, [VAR]-features do not mark the interpretable/uninterpretable distinction.

More can be said to precisely characterize the function and the status of indices as values for referential features. It is not the case that each nominal carries a predefined index in the lexicon, since that would lead to a huge number of indices to be memorized as lexical information. Instead, when a nominal item is selected from the numeration, a value, i.e. an index, is selected for its [VAR]-feature. More precisely, according to Hicks (2009), the inherent value of [VAR] on R-expressions and pronouns is simply an instruction (or pointer) to assign an arbitrary value to it as soon as they are merged into the structure. Each new DP gets assigned a different value or index, allowing the syntax and later the semantics to keep track of distinct or overlapping reference of entities. At LF, an assignment function maps these values to salient entities in the evaluation context. Two items with matching [VAR]-values will consequently denote the same entity and be construed as coreferent. In other terms then, referential features can be described, using a metaphor from (Grosz 2015: 22), "as markers of abstract file cards that discourse participants use in communication [...]. Having identical referential features then corresponds to making reference to the same file card". Indices thus do not stand for *absolute* real world reference, but rather to *relative* reference between different DPs and speech act participants of a linguistic unit like the clause and the entities they refer to (Heim 1982). Indices establish discourse referents, but do not necessarily refer to any individual outside the linguistic representation. The discourse referents established by indices have a very short life-span, as they are only established for the participants of a given clause or derivation, used in syntax and then semantics to establish referential dependencies, and then "discarded" upon full processing of the given linguistic unit. This conception of things allows us to capture the intuition, highlighted by Sundaresan (2012: 89), that "syntax doesn't care about reference, only about (syntactically-derived) coreference". The epithet *referential* in *referential features* is thus to be understood accordingly, as features that

¹³It is not clear what role Hicks (2009) attributes to φ -features in the interpretation of DPs. He mentions that interpretation at PF or LF (the distinguishing characteristic of the two different types of features) should be distinguished from *semantic* interpretation (p.46), which suggests that φ -features could have a role to play in semantic interpretation after all. At the same time, he substantiates his claims for the existence of two different types of features by citing Legate (2002a), according to whom interpretable φ -features are not necessarily interpreted, based on the existence of non-semantic noun classmarkers in certain languages, for example, or Hornstein (2006: 53-56), who "reviews a variety of evidence suggesting that the φ -features of bound pronouns carry no semantic import".

establish relative discourse referents by means of index values, not as features denoting the actual reference of a syntactic item. This set-up allows modularity to be preserved and avoids a look-ahead problem in narrow syntax. For more details on the distinction between discourse referents and indices/variables, the reader is referred to the insightful discussion in Heim (1982: 165-174).

Relatedly, a common criticism against referential features is that they seem to violate the Inclusiveness Condition (Chomsky 1995b). The Inclusiveness Condition states that no syntactic objects can be inserted in the derivation which were not present in the initial selection of lexical items, i.e. the numeration. Indices are not lexical objects and therefore cannot be present in the numeration and thus should not be treated as grammatical entities. Introducing indices as values of features can be seen, as Hicks (2009: 115) puts it, as "masquerading" an index for a feature. However, Hicks (2009) opposes the following argument to this criticism, which I subscribe to: "A pronoun must be linked with a logical variable before the final LF-representation. This information must be provided as part of its lexical entry. The feature is present in the lexicon, just that the feature value in the listed entry is an instruction to be converted into an integer upon lexical selection. The feature value that the pronoun receives is not strictly present in the lexicon, but it is determined by lexical properties".¹⁴

Several proposals for such referential features have been put forth, including in domains other than anaphoric binding: [VAR]-features for binding for Hicks (2009), [ID]-features encoding *wh*-dependencies for Adger and Ramchand (2005), underlying switch reference markers for Arregi and Hanink (2018, 2019), or referential features determining the possibility of summative agreement (Grosz 2015). I will come back to these in 2.3.2.3. Although they are designed to various ends, the shared properties of these features is that they (i) are semantically interpretable, (ii) target specifically the reference or identity of a DP, (iii) encode whether a variable is dependent or coreferent on another. Drawing on these proposals, the next section defines [ID]-features, the variant of [VAR] that I will rely on throughout this thesis.

2.3.2.2 Defining [ID]-features

I adopt the core idea of Hicks' account of binding in making use of a feature with a high semantic contribution and indices as feature values, and draw for the most on his proposal. However, I depart from his account in several significant ways, justifying the introduction of a different type of feature.

First, I do not strictly identify variable and anaphoric binding. In order to fully capture the parallel with variable binding, Hicks (2009) has recourse to operator (OP) features.

¹⁴This position is not shared by Grosz (2015), who assumes that such features are generated in the lexicon, prior to lexical insertion.

His reasoning is based on variable binding by quantifier DPs. Indeed, quantificational DPs are not obviously carriers of indices, as they do not require identification of a precise entity. In the following example, *every boy* is not referential, i.e. it does not refer to a particular individual in the discourse context, yet it is known to be able to bind *himself*.

(85) a. Every boy_{*i*} loves himself_{*i*}.

In order to include such cases in his account, Hicks (2009) argues that the interpretation of such an example requires a universal quantification operator, which he inserts as a feature on the quantifier, resulting in the following featural specifications.

(86) Every_{[OP:∀][VAR:*i*]} boy loves himself_[VAR:*i*].

Based on this, and on the received wisdom that anaphoric binding, even of referential DPs, involves semantic binding by a λ -operator, Hicks (2009) assumes that a λ -operator is inserted on referential DPs such as *John* (i.e. potential antecedents) as well, either in syntax or at LF, giving rise to a uniform syntax for binding by a quantifier as in (86) and by a referential DP as in (87) below.

(87) John_{[OP:∀][VAR:*i*]} loves himself_[VAR:*i*].

I choose to dispense with such operator features here. First of all, the insertion of operator features on referential DPs is speculative. More importantly, although variable binding has often been thought of as the semantic operation behind both anaphoric binding and quantifier binding, both types of binding are actually distinct, and some recent accounts have shown that while variable binding is the semantic correlate of anaphoric binding relations in some languages, it is not universally the case (e.g. Déchaine and Wiltschko 2012, 2017; Spathas 2017). For instance, Déchaine and Wiltschko (2012, 2017) show that cross-linguistically, reflexive forms have different morpho-syntactic, semantic, and binding-theoretic properties, which, they argue, reflect their syntactic category (i.e. they might be DP, φ P, n P, etc.). The semantic correlate of these different syntactic categories are different modes of semantic composition, revealed by several diagnostics (felicitousness in equative contexts, availability of near-reflexive readings, etc.): reflexive anaphors may either saturate or restrict an argument of the predicate, and do so using either a choice function or an identity function. For instance, φ P anaphors, such as French *se*, function as bound variables and may saturate arguments via a choice function; in contrast, English anaphors saturate arguments as well, but do so by introducing an identity function that forces coreference with another DP. Similarly, Spathas (2017) makes an argument for the semantic heterogeneity of reflexive anaphors based on three diagnostics: (i) the focus alternatives generated by narrow focus on the anaphor; (ii) the ability of a reflexive anaphor to introduce a discourse referent; (iii) the ability of a reflexive anaphor to license

paycheck pronouns. As different reflexive anaphors react differently to these diagnostics, Spathas (2017) argues that this is the result of distinct semantic reflexivization strategies. While some anaphors are bound variables, others are arity-reducers (e.g. English or German) and yet others introduce identity relations (e.g. Greek).¹⁵ While I am not concerned at this stage with details of the semantic processing of reflexives, these works show that not all binding relations need to be thought of as semantic operator-variable binding, weakening the motivation for introducing OP features and justifying the use of a more neutral label than VAR for features involved in binding.

Second, it will become clear as we progress in the thesis that the relevant feature needs to be interpretable at both interfaces (PF and LF), and hence is not strictly semantico-syntactic in Hicks's sense. More generally, I do not subscribe to Hicks's division between morphosyntactic and semanticosyntactic features. In the same way as referential features need to be interpretable at both interfaces, φ -features are standardly assumed to also have a role to play at LF (namely they introduce presuppositions, Heim 2008; Heim and Kratzer 1998; Sudo 2012), albeit a different one than that of referential features, and not only at PF.

In order to make these divergences clear, I will use the label [ID]-features (evoking the notion of index and identity), following the precedent set by Adger and Ramchand (2005) (see also Arregi and Hanink 2018, 2019). [ID]-features, like any other features, can be interpretable or uninterpretable and valued or unvalued. They are always interpretable on nominals; they are valued on referential nominals, but unvalued on anaphoric items.

Given the above-mentioned departures from Hicks' [VAR] but also the commonalities therewith, the key characteristics of [ID]-features are defined as follows.

(88) **The [ID]-feature:**

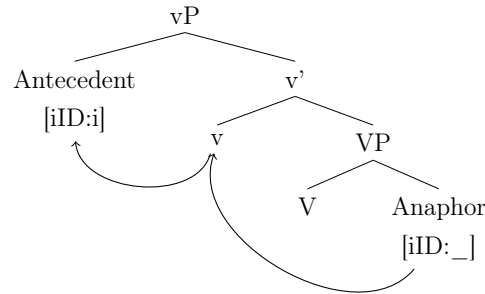
- a. takes indices (integers or letters) as values. These indices encode the relative reference of DPs with regard to one another;
- b. is interpretable at both LF and PF interfaces, i.e. [ID]-features play a role in the interpretation of sentences and may be expressed morpho-phonologically;
- c. is present as an attribute on every nominal;
- d. is valued on referential nominals;
- e. is unvalued on anaphoric nominals, constituting the syntactic correlate of anaphoricity;

As detailed in previous section, I adopt an analysis of binding in terms of upward Agree. The relevant Agree relationship is modelled below using [ID]-features. This forms the base

¹⁵It would be interesting to see how the proposals Déchaine and Wiltschko (2012, 2017) and Spathas (2017) can be reconciled, as their diagnostics could complement each other and perhaps lead to a unified classification, or on the contrary make very distinct predictions.

of anaphoric relationships that will be studied in the rest of this thesis.

(89) *Binding as Upward [ID]-Agree*



Aside from being able to encode the (relative) reference of nominals and the referential dependency between them, [ID]-features are also able to bypass other weaknesses of φ -approaches. Unlike φ -Agree relations which are known to be sensitive to the case of the elements they target, [ID]-features are bound by no such relation with case features, correctly accounting for the fact that binding relations seem to be blind to case. Additionally, assuming that binding relations are achieved through [ID]-agreement instead of φ -agreement can account for the existence of φ -mismatches between anaphors and their antecedent: nothing prevents two DPs with different φ -features to have matching [ID]-features, and a fortiori one DP to Agree for an [ID]-value with another one with a mismatching φ -set, if they both have the same reference.

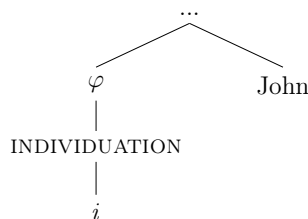
A final question that arises as to the nature of [ID]-features is their relationship with φ -features. As presented here, and dealt with in works such as Hicks (2009), they are treated as completely independent features which fulfill different roles.¹⁶ A nominal typically has φ -features in addition to [ID]-features. The function of the former is to restrict the reference of the nominal by introducing presuppositions, or in other words to "constrain the domain of mapping possibilities for the reference index at LF" (Sundaresan 2012: 89). By contrast, the role of [ID]-features is to label the referential entities in the numeration with information that permits to relate them as disjoint or intersecting in reference with each other.

While these functions are clearly distinct, albeit complementary, some authors have suggested that φ and [ID]-features may belong to a similar featural hierarchy, or in other words be attributes or values of the same supra-features. Adger and Ramchand (2005) argue that while all pronouns have [ID]-features, they are divided in two classes: those which are referentially deficient in the sense of bound variables, which take DEP (dependent) as a value of [ID], indicating that the pronoun is identified via an assignment

¹⁶See also Sundaresan (2012) for a discussion of the relation between φ -features and perspectival [DEP]-features, although the latter should not be identified directly with [ID]-features.

function determined by an operator; and those which bear $[ID:\varphi]$, whose identification takes place directly by an assignment function determined by context and consistent with the φ -features. In other words, for Adger and Ramchand (2005), φ is one of the possible values of $[ID]$. By opposition, Grosz (2015) postulates that referential features, conceived as just an index but comparable to $[ID]$ -features, are contained within hierarchically structured φ -feature bundles, and dominated by an INDIVIDUATION node, used to represent number systems. This is schematized below, adapting from Grosz (2015: 17).

(90)



Although diverging in implementation, both approaches postulate that φ and $[ID]$ are hierarchically articulated (see also Clem 2019). While I will not assume such a view for the purposes of this thesis, this is a research axis which deserves to be studied in its full complexity. The questions it asks are in many respects akin to problematics around the articulation and hierarchisation of person, number and gender features among each other. Importantly, an approach that sees φ -features as part of $[ID]$ -features or the other way around would not necessarily be incompatible with the claims made in this thesis, as index values and e.g. gender values would still retain different functions, in the same way as person and gender values/attributes have different functions.

2.3.2.3 Independent support for referential features in syntax

One potential criticism against an approach of binding in terms of $[ID]$ -features is that such features are binding-specific and therefore theoretically uneconomical. However, features are argued to come at no cost in Minimalism, as long as they are motivated semantically and/or at PF and can be acquired. In this section, I will show that research on several syntactic phenomena outside of anaphoric binding has shown the utility and the necessity of such referential features, when φ -features are not enough. I will first introduce the case of *wh*-dependencies in Scottish Gaelic, which Adger and Ramchand (2005) argue are accounted for by agreement in referential $[ID]$ -features. Then, I will address the case of summative agreement in right-node-raising constructions (Grosz 2015), and finally talk about switch reference patterns (Arregi & Hanink 2018, 2019).

Wh-dependencies in Scottish Gaelic Adger and Ramchand (2005) motivate the use of a feature $[ID]$ underlying A'-dependencies, specifically *wh*-dependencies in Scottish

Gaelic relatives and wh-questions, introduced by the complementizer *a*, illustrated in the following examples.

- (91) a. an leabhar a cheannaich thu an diugh
 the book C-REL bought you today
 ‘The book that you bought today’
 b. Cò a bha sgith?
 who C-REL be-PST tired
 ‘Who was tired?’ (Adger & Ramchand 2005: 164-165)

They first argue that in Gaelic, wh-dependencies are established not by movement, but by Agree between the relative complementizer *a* and a silent pronoun *pro* in its base position, as schematized with the English and Gaelic sentences below.

- (92) a. the [song [_{CP} that_{ID} you were listening to *pro*_{ID}]]
 b. an [duine [_{CP} a_{ID} bhuaileas e *pro*_{ID}]]
 the man C-REL strike.FUT he
 ‘The man that he will hit’ (Adger & Ramchand 2005: 175)

The motivation for such an analysis comes from non-identity effects between the "moved" element and its trace. Indeed, an analysis in terms of movement predicts that the moved element and its trace will be identical with respect to their selection, the agreement that they trigger or the case that they bear, since the moved element is base-generated in the position of the trace. Adger and Ramchand (2005) show that such identity does not hold in Gaelic wh-relatives. For instance, present participles in declarative sentences select genitive case, as seen in (93a). In a wh-question like (93b), if the moved element *a'* *chraobh* ‘the tree’ is base-generated in object position and then fronted, it should then bear genitive case. However, as (93b) shows, it bears nominative case instead, and genitive case leads to ungrammaticality as illustrated by (93c).

- (93) a. Bha thu a’geàrradh na **craoibhe**.
 be-PST you cutting the tree. GEN
 ‘You were cutting the tree.’
 b. D’e a’ **chraobh** a bha thu a’geàrradh ?
 which the tree. NOM C-REL be-PST you cutting
 ‘Which tree were you cutting?’
 c. *D’e na **craoibhe** a bha thu a’geàrradh ?
 which the tree. GEN C-REL be-PST you cutting
 Int: ‘Which tree were you cutting?’

This is unexpected under a movement approach to wh-dependencies, unless one makes the non-standard assumption that case-assignment follows wh-movement. In contrast, these facts follow straightforwardly if *a'* *chraobh* ‘the tree’ is base-generated in its prever-

bal position, which Adger and Ramchand (2005) argue is always assigned nominative in Gaelic.

Similarly, the fact that wh-elements are not moved from (and later reconstructed in) a low position can be shown by the absence of Principle C effects in wh-questions. Principle C effects arise when a pronoun is coindexed with a DP that it c-commands, as in the following example, where the pronoun *e* cannot be coreferent with the DP *Iain*.

- (94) Chennaich $\boxed{e}_{i/*j}$ an dealbh de dh' $\boxed{\text{Iain}}_j$ an dè.
 bought he a picture of Iain today
 'He_{i/*j} bought a picture of Iain_j today.'

Principle C effects similarly arise when a DP is moved and is no longer c-commanded by a pronoun, suggesting that the moved constituent reconstructs to its base position where it triggers Principle C effects. The following example shows a relative clause [*a bha Iain a'sgriobhadh leis*] 'that Iain was writing with', being extraposed from within the DP [*am peann t aige*] 'his pen'.

- (95) S toil leam $[[_{DP} \text{ am peann } t_i] \boxed{\text{aige}}_{j/*k}]$ ge-tà $[_{REL} \text{ a bha}$
 COP liking with.1SG the pen at.him however C-REL be.PST
 $\boxed{\text{Iain}}_k \text{ a'sgriobhadh leis}]_i$.
 Iain writing with
 'I like his_{j/*k} pen that Iain_k was writing with.'

In this construction, the pronoun contained in the PP *aige* cannot be coindexed with the DP *Iain*, contained within the extraposed relative, although it does not c-command it. Note that contrary to what is suggested by the linear order of the base position of the relative and the PP, the latter in fact structurally c-commands the former. This suggests that the relative is reconstructed in its base position, where *aige* does c-command *Iain*, leading to a Principle C violation. So Principle C effects arise after reconstruction of moved elements in Gaelic.

Based on this, consider now what happens in wh-questions.

- (96) [Dè an dealbh de dh' $\boxed{\text{Iain}}_i$] a cheannaich $\boxed{e}_{i/j}$ an dè?
 which the picture of Iain C-REL bought he yesterday
 'Which picture of Iain_i did he_{i/j} buy yesterday?'

Coreference of *Iain* and *e* is unproblematic, as expected if the former c-commands the latter; this supposes that the wh-constituent containing *Iain*, if moved, does not reconstruct in its base-position where it would yield a Principle C effect. For partisans of wh-movement, this leads to the problematic assumption that some moved elements reconstruct (e.g. extraposed relatives) but some others don't (e.g. wh-constituents). In contrast, Adger and Ramchand (2005) argue that if the wh-constituent is always base-

generated in its preverbal position in such cases, and linked to a *pro* in the lower position via Agree, no such reconstruction effect and accordingly no Principle B effect are expected to happen, consistent with facts.

Based on such evidence, Adger and Ramchand (2005) conclude that wh-dependencies are governed not by a movement operation, but rather by Agree. They argue that the feature involved in such Agree relations should fulfill three criteria. First, it should be "just [that] needed by the semantics to create the relevant relationship", i.e. not introduce any other formal dependency. In other words, φ -features, which encode presuppositional information about the characteristics of the complementizer and the *pro* and would potentially also introduce φ -covariance, are not an economical choice in this respect. Second, the relevant feature should be able to be interpreted by the semantics as a variable position, as wh-dependencies for Adger and Ramchand (2005) are semantically instances of variable binding. Third, since the relevant position is occupied by a (silent) pronoun, the feature should be consistent with properties of pronouns. Such a property is identified by Adger and Ramchand (2005) as referential deficiency. These three elements lead them to argue that the features involved are not φ , but rather [ID]-features, which they conceive as follows. They argue that pronouns whose reference need to be determined by an assignment function determined by a syntactic operator (as opposed to discourse or syntactic antecedents), such as is the case of *pro* in relatives, bear an unvalued [ID]-feature. This feature needs to be valued by agreeing with a matching [ID]-feature whose value is DEP (for dependent), located on the complementizer C as schematized below.

$$(97) \quad \begin{array}{l} C[\Lambda, \text{ID:DEP}] \dots \textit{pro}[\text{ID:}__] \rightarrow \\ C[\Lambda, \text{ID:DEP}] \dots \textit{pro}[\text{ID:}\underline{\text{DEP}}] \end{array}$$

The DEP value ensures that the pronoun is identified via the assignment function determined by the operator Λ on C. Pronouns with unvalued [ID]-features function as dependent variables, whose reference is determined not based on context but by identity with another variable. [ID]-features, which Agree in syntax, encode referential identity exclusively and are semantically interpretable as bound, thus emerge as the desired features to encode wh-dependencies in Scottish Gaelic, in a way that φ -features could not.

Summative agreement in Right-Node-Raising constructions Another environment where referential features seem to be at play are right-node-raising constructions (henceforth RNRC), in particular with regard to the possibility of summative agreement, i.e. plural agreement of one target with two separate singular controllers (Grosz 2015; Yatabe 2003). RNRCs are coordinate structures in which a sentence-peripheral element behaves as if it was part of both conjuncts, as illustrated by the following example.

$$(98) \quad [\text{John buys } __] \text{ and } [\text{Mary burns } __] \text{ books about syntax.} \quad (\text{Grosz 2015: 1})$$

Grosz (2015) focuses on a particular subset of RNRCs, in which two elements (*Bill* and *John*) have moved from a position that belongs to the sentence-peripheral element (here *traveled to Cameroon*), a phenomenon dubbed movement across shared material.¹⁷

- (99) [Sue's proud that *Bill* _] and [Mary's proud that *John* _] **traveled** $t_{Bill/John}$ **to Cameroon**. (Grosz 2015: 5)

In such constructions, the verb in the shared element can optionally exhibit plural agreement (called summative or cumulative agreement) or singular agreement, as illustrated in (100). In other words, a shared agreement target (finite T) can agree with two separate agreement controllers (singular *John* and singular *Bill*), resulting in either plural or singular agreement (capitalized constituents indicate focus).

- (100) [Mary's proud that *JOHN_i* _] and [Sue's glad that *BILL_j* _] have/has **traveled to Cameroon**.

While the availability of cumulative agreement is a puzzle in itself, Grosz (2015), following Yatabe (2003), notes a particular condition on its availability. While cumulative agreement may arise in sentences like (100), where the two controllers refer to different individuals, it is impossible in cases where both refer to the same person, as in (101).

- (101) [Mary's PROUD that *John_i* _] and [Sue's GLAD that *John_i* _] has/*have **traveled to Cameroon**. (Grosz 2015: 16)

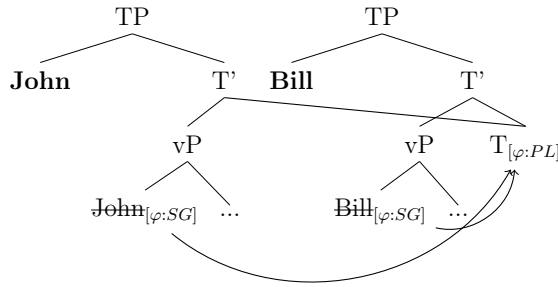
In other words, while in both cases the φ -features of the two controllers are the same (namely 3rd person singular), the resulting agreement is not, suggesting that another factor is at play.¹⁸ Indeed, accounting for this contrast using only φ -features proves very difficult. Compare the two trees below, schematically representing the sentences in (101) above. If the syntax sees only φ -features, as is the case here, there is no reason why the probe T should distinguish between both sentences, as the φ -feature input is exactly the same, and both should result in plural agreement, contrary to fact.

¹⁷Grosz (2015) represents the DPs *Bill* and *John* as originating within the VP, and subsequently moving to Spec,TP across shared material located in T (inflection and auxiliary) and the lexical verb in V.

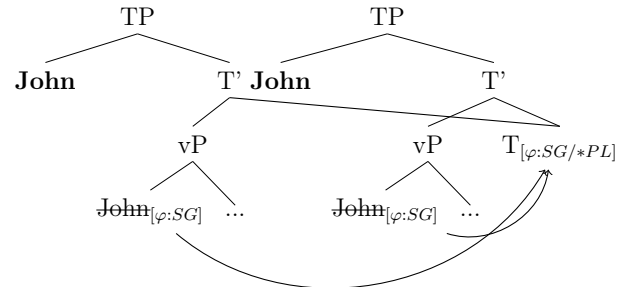
¹⁸These facts replicate in simpler cases of agreement with conjoined singular DPs. Plural agreement is possible only with referentially disjoint DPs, but not with coreferent DPs, as the following examples illustrate:

- (i) a. [[_{DP} His lifetime companion]_i and [_{DP} the editor of his autobiography]_j] **were** at his bedside.
 b. [[_{DP} His lifetime companion]_i and [_{DP} the editor of his autobiography]_i] **was** at his bedside.
 (Farkas & Zec 1995: 90)

(102)

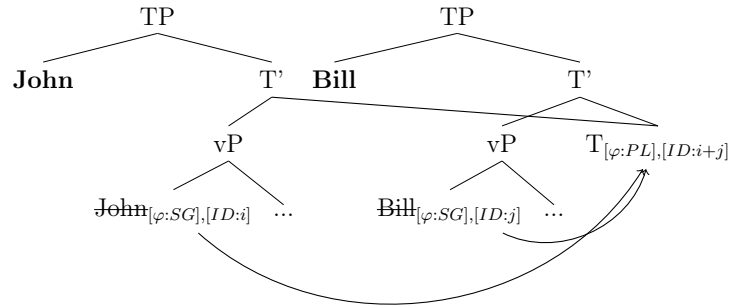


(103)

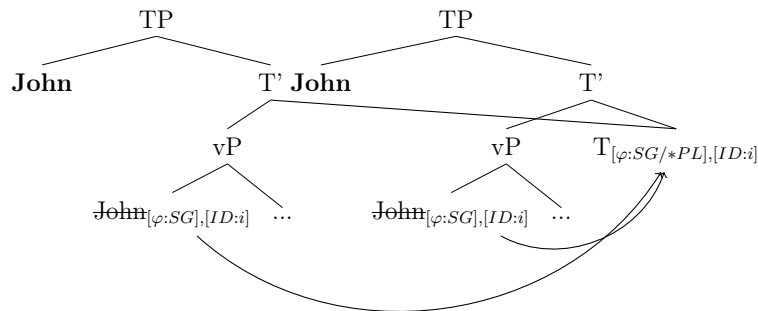


Instead, what appears to be relevant for the determination of agreement is the reference of the DPs involved. Based on this, Grosz argues that referential features, represented as numerical indices and copied along with the φ -bundle during Agree operations, can account for the (un)availability of cumulative agreement in RNRCs. The presence of referential features introduces the featural distinction that φ -features lacked to account for the contrast in (101). Plural agreement is the result of two distinct indices being copied onto the probe, while only singular agreement may occur in the presence of only one index.

(104)



(105)



These facts allow us to draw two conclusions: first, φ -features alone cannot successfully

the contrast in (101), motivating the recourse to another type of feature. Second, a representation of discourse referents such as indices must be accessible by the syntax, and in particular by Agree operations. This constitutes motivation, independent from binding, for referential features, of which [ID]-features are an instantiation.

2.3.2.4 The AAE as a challenge for [ID]-features

While [ID]-features offer an advantageous alternative to the shortcomings of φ -features, they apparently cannot account for what seems to constitute the strongest argument in favor of the φ -based hypothesis, namely the Anaphor-Agreement Effect. Indeed, the empirical observation that anaphors cross-linguistically fail to occur in φ -agreement triggering positions or to control φ -covarying agreement finds a natural explanation if one assumes that anaphors are φ -deficient. An approach to binding in terms of [ID]-features, however, initially offers no explanation as to why anaphors would not be appropriate goals for φ -agreement. Indeed, there is no reason why φ -probes on functional heads should be sensitive to the presence of valued or unvalued [ID]-features on a potential φ -goal, as long as it has a matching valued φ -set. The AAE therefore constitutes an important challenge for the [ID]-hypothesis.

However, as I will demonstrate in this thesis, an approach in terms of [ID]-features first allows us to account for a corner of the AAE left unexplained by Murugesan's φ -approach, namely the phenomenon of anaphoric agreement in Swahili and other languages, labeled an exception to the AAE by Woolford (1999) (in chapters 6 and 7). Additionally, in chapter 9, I will argue that an [ID]-theory of pronominal and anaphoric licensing may in fact account for another subset of the empirical observations brought together under the umbrella of the AAE, namely the obligatoriness of DOM on anaphors in languages like Hindi or Inuktitut. Finally, chapter 9 will also, through a close investigation of the patterns described above as manifestations of the AAE, narrow the empirical scope of the AAE by showing that many of these patterns are not what they seem and can be attributed to factors other than the AAE, considerably weakening its power as an argument for φ -based approaches to binding.

2.3.3 Conclusions

This chapter has set the theoretical stage for the study of reflexive anaphors. Section 2.1 introduced the classical GB opposition between pronouns and anaphors, how it was captured by the Binding Principles, and later refined by Reinhart and Reuland's theory of reflexivity licensing, which shaped many of the current insights about anaphora, in particular their heterogeneity as a class, the combined role of coindexation and reflexive-marking (which will be found in a revisited form in the proposal developed here) and the breakdown of binding specific modules in favor of more general principles of the

grammar. Section 2.2 introduced minimalist theories of Binding as Agree, which recast anaphoric binding as an Agree relation between an anaphor and its antecedent. There I introduced the key assumptions about Agree as defined for the purposes of this thesis, namely an upward operation resulting in feature-sharing, and demonstrated that binding exhibits the footprint of an Agree-operation, allowing us to develop a model of Binding as Agree. Finally, 2.3 introduced the two competing hypotheses about the features underlying Agree operations, namely φ -features and referential features. Despite its initial appeal, I showed that the use of φ -features faces many challenges when it comes to anaphoric binding, which referential features allow to circumvent. I defined [ID]-features as the relevant referential features, building on previous accounts, and showed that despite criticisms, there exists potential support for the existence of such features outside of the domain of anaphoric binding.

Perhaps the strongest piece of evidence in favor of φ -feature in binding was the Anaphor-Agreement Effect, demonstrating the importance of the study of non-canonical (i.e. non binding-theoretical) distributional restrictions on reflexive anaphors to inform the debate on their featural content. The rest of this thesis investigates another class of restrictions on reflexives, namely the apparent ban on reflexive direct objects in double object constructions, akin to the restrictions found on 1st and 2nd person and known as the Person-Case Constraint. This parallel, I will argue, provides strong evidence against φ -features and in favor of referential [ID]-features not only in anaphoric binding, but also in 1st/2nd person licensing.

Chapter 3

Reflexives in ditransitives and the Person Licensing Condition

As shown in the previous chapter, theories of Binding as Agree are divided about which features are at play in anaphoric binding. In order to shed light on this question, this thesis focusses on a previously underexplored class of restrictions on reflexives. As already mentioned and as will be shown in this chapter, local subject-oriented reflexive anaphors cannot surface as direct objects in double object constructions. This pattern is found in several unrelated languages, which all have weak pronominal anaphors or verbal reflexive/anaphoric agreement. Such restrictions parallel the well-known observation that 1st and 2nd person weak pronouns or agreement markers are banned as direct objects in the same context, a generalization known as the Person-Case Constraint (PCC, [Bonet 1991](#)). While these restrictions, typically analyzed as intervention effects ([Anagnostopoulou 2003, 2005](#); [Béjar & Rezac 2003](#)), support a general analysis of binding as Agree, they crucially also relate to the debate on the featural content of reflexive anaphors. Indeed, the shared restrictions on 1st/2nd person pronouns and reflexives in double object constructions, excluding 3rd person pronouns, raise the possibility of a common featural correlate underlying the class of 1st/2nd person and reflexives. This chapter will first introduce the restrictions on 1st/2nd person and reflexives in double object constructions from a cross-linguistic point of view in 3.1, and outline previous syntactic approaches to the PCC for 1st/2nd person in terms of φ -agreement in 3.2. I will then formulate how the patterning of reflexives with 1st/2nd person poses a challenge for current accounts of the PCC in a way that can inform the featural content of both classes of items, starting by the empirical challenge formed by 3rd person reflexives in 3.3, before addressing more general theoretical challenges for present theories of Person Licensing in 3.4.

3.1 Restrictions on 1st/2nd person and reflexives in double object constructions

In this section, I start by introducing the PCC and its patterns for 1st/2nd person pronoun in 3.1.1. I then show in 3.1.2 that reflexives pattern alike in several languages, before discussing the implications of this empirical finding.

3.1.1 Introducing the Person Case Constraint

1st and 2nd person pronouns and agreement markers are cross-linguistically subject to distributional restrictions that seem to exclude 3rd person items. Perhaps the best known of these person effects is the Person Case Constraint (PCC). This constraint was first described for Romance double object constructions, by [Perlmutter \(1971\)](#) and [Bonet \(1991\)](#), and can be formulated as follows:

(1) *The Person-Case Constraint (PCC)*

In a double object construction which combines an indirect object and a weak direct object [clitic, agreement marker or weak pronoun], the direct object has to be 3rd person.

Double object constructions (henceforth DOCs) are ditransitives in which both the indirect object and the direct object appear as two noun phrase objects of the verb, as opposed to prepositional dative constructions, in which the indirect object appears as the object of a preposition. As per the PCC, in DOCs taking two weak/clitic pronouns as their objects, the direct object cannot be 1st or 2nd person. This is the case in French, where the combination of a 1st or 2nd person direct object (DO, boxed in the following examples) and a 3rd person indirect object (IO, italicized) is ungrammatical, as in (2). In contrast, sentences like (3), in which the direct object is 3rd person, yield perfectly grammatical clitic combinations.

- (2) a. *Marie **me** *lui* présente.
 Marie 1SG.ACC 3SG.DAT introduce.PRS.3SG
 ‘Marie introduces me to him/her.’ *IO 3SG > DO 1SG
- b. *Marie **te** *leur* présente.
 Marie 2SG.ACC 3PL.DAT introduce.PRS.3SG
 ‘Marie introduces you to them.’ *IO 3PL > DO 2SG
- (3) a. Marie **les** *lui* présente.
 Marie 3PL.ACC 3SG.DAT introduce.PRS.3SG
 ‘Marie introduces them to him/her.’ IO 3SG > DO 3PL
- b. Marie **le** *leur* présente.
 Marie 3MSG.ACC 3PL.DAT introduce.PRS.3SG

‘Marie introduces him to them.’ IO 3PL > DO 3SG

The same patterns replicate when the indirect object is 1st or 2nd person, showing that the person specification of the indirect object is indifferent to the ban on 1st/2nd person direct objects.

- (4) a. *Marie **me** *te* présente.
 Marie 1SG.ACC 2SG.DAT introduce.PRS.3SG
 ‘Marie introduces me to you.’ *IO 2SG > DO 1SG
- b. *Marie **te** *nous* présente.
 Marie 2SG.ACC 1PL.DAT introduce.PRS.3SG
 ‘Marie introduces you to us.’ *IO 1PL > DO 2SG
- (5) a. Marie *me* **les** présente.
 Marie 1SG.DAT 3PL.ACC introduce.PRS.3SG
 ‘Marie introduces them to me.’ IO 1SG > DO 3PL
- b. Marie *vous* **le** présente.
 Marie 2PL.DAT 3SG.ACC introduce.PRS.3SG
 ‘Marie introduces him to you(pl).’ IO 2PL > DO 3SG

1st and 2nd person direct objects clitic pronouns therefore seem to be restricted in DOCs in a way that 3rd person pronouns are not.

Restrictions on 1st/2nd person direct objects can also be observed in languages where both objects are indexed by agreement markers on the verb. This is the case in Basque, a rich agreement language in which finite auxiliaries agree with ergative, absolutive and dative arguments. In a ditransitive, both the direct and indirect objects trigger agreement.¹ However, the direct object of a DOC can only be 3rd person. This is illustrated in (6a) and (6b). In (6a), the direct object in the absolutive *liburua* ‘the book’ is 3rd person and the indirect object *niri* ‘me’ is 1st person, both of them triggering agreement on the auxiliary and forming a grammatical sentence. (6b) shows the reverse: the direct object *ni* ‘me’ is 1st person and the indirect object *harakinari* ‘the butcher’ is 3rd person. As shown by the ungrammaticality of (6b), a 1st person theme is ungrammatical in a DOC.

- (6) a. Zuk *niri* **liburu-a** saldu **di-da**-zu.
 you.ERG me.DAT book-ART sell 3SG.ABS.AUX-1SG.DAT-2SG.ERG
 ‘You have sold the book to me.’ IO 1SG > DO 3SG
- b. *Zuk *harakin-ari* **ni** saldu **n(a)i-o**-zu.
 you.ERG butcher-ART.DAT me.ABS sell 1SG.ABS.AUX-3SG.DAT-2SG.ERG
 Int: ‘You have sold me to the butcher.’ *IO 3SG > DO 1SG

¹For expository purposes I assume that the affixes indexing arguments on the verb are true agreement markers, in keeping with most of the Basque literature. However, it should be noted that some scholars have argued these affixes to be pronominal clitics (Arregi & Nevins 2008, 2012; Preminger 2009), a view that I will also adopt later on (see 4.3.3). Given that the PCC is assumed to hold of agreement markers and pronominal clitics alike, this distinction is not relevant at this stage.

The patterns observed in languages like French or Basque are summed up in table 3.1.²

Table 3.1: Strong PCC (e.g. French, Basque)

IO	DO	
3	3	✓
3	1/2	✗
1/2	3	✓
1/2	1/2	✗

Such person restrictions in the object domain are found in a variety of languages. However, they are not uniform across all of them, and the restrictions placed on 1st and 2nd person can vary in strength, yielding different variants of the PCC. The patterns observed in French and Basque and defined in (1) are known as the Strong PCC, i.e. a ban on (weak) 1st/2nd person DOs in the presence of *any* (weak) IO, regardless of its person specification. I will briefly outline the patterns in two other varieties of the PCC: the Weak PCC and the Ultrastrong PCC.

Some languages, like Italian (Romance) or Sambaa (Bantu, [Riedel 2009](#)), exhibit the so-called Weak Version of the PCC, stated in (7).

(7) *The Weak Version of the PCC*

In a double object construction which combines an indirect object and a weak direct object [clitic, agreement marker or weak pronoun], if there is a 3rd person it has to be the direct object. ([Bonet 1991](#):182)

In other words, the constraint only rules out combinations involving a 3rd person indirect object and a 1st/2nd person direct object, while combinations of two local persons are unrestricted. This is illustrated in Italian below. As was the case for French, the combination of a 3rd person IO and a 1st/2nd DO is disallowed, as shown in (8a). However, combinations of two local persons are allowed, as shown in (8b) where the IO is 2nd person and the DO 1st person and the sentence is grammatical. As expected, 3rd person direct objects are unproblematic in Italian clitic combinations, regardless of the features of the indirect object. The 3rd person masculine singular accusative clitic *lo* can occur with a 3rd person IO (8c) or a 1st/2nd person IO (8d).

- (8) a. *Mi/ti gli ha affidato.
 1SG/2SG.ACC 3SG.DAT have.PRS.3SG entrust.PTCP
 ‘He entrusted me/you to him.’ *IO 3 > DO 1/2

²Note that here and throughout this section, IO 1 > DO 1 and IO 2 > DO 2 combinations are left out since they yield reflexivity and thus are subject to particular restrictions (see chapter 4 for more details).

- b. **Mi** *ti* ha affidato.
1SG.ACC 2SG.DAT have.PRS.3SG entrust.PTCP
'They introduce me to you.' IO 2 > DO 1
- c. *Glie-***lo** ha affidato.
3SG.DAT-3SG.ACC have.PRS.3SG entrust.PTCP
'He entrusted him to him.' IO 3 > DO 3
- d. *Me/te* **lo** ha affidato.
1SG/2SG.DAT 3SG.ACC have.PRS.3SG entrust.PTCP
'He entrusted him to me/you.' IO 1/2 > DO 3
(adapted from Bianchi 2006: 9)³

The combination of a 1st person DO and a 2nd person IO in (8b) is thus disallowed in French but grammatical in Italian. In languages that have the Weak PCC, the distribution of 1st and 2nd person is then less restricted, albeit still unlike that of 3rd person pronouns. This is summed up in table 3.2.

Table 3.2: Weak PCC (e.g. Italian, Swahili)

IO	DO	
3	3	✓
1/2	3	✓
3	1/2	✗
1/2	1/2	✓

Other languages, such as Classical Arabic, as well as some varieties of Spanish, exhibit the so-called Ultrastrong PCC (Nevins 2007). Ultrastrong PCC effects seem to rely on an additional hierarchy between 1st and 2nd persons: 1st persons are more restricted than 2nd persons, which are in turn more restricted than 3rd person. This is illustrated with Classical Arabic below (Fassi-Fehri 1988 in Nevins 2007: 298). Informally, the Ultrastrong PCC describes the generalization that, if there is a 1st person in a ditransitive, it cannot be the direct object. Classical Arabic thus disallows any combination of an indirect object and a 1st person direct object, that is it bans *IO 3rd > DO 1st combinations as well as *IO 2nd > DO 1st combinations (unlike the Weak PCC). This is illustrated by (9).

- (9) a. *ʔaʕtay- ta- hu:- **ni:**
gave- 2.SBJ- 3.DAT- 1.ACC
'You gave me to him.' *IO 3 > DO 1
- b. *ʔaʕta:- ka- **ni:**
gave.3.SBJ- 2.DAT- 1.ACC

³These examples are taken from Bianchi (2006) but reflect the judgements of my own informants. Note that Bianchi reports that in her variety (8b) is ungrammatical, indicating that her variety of Italian does not have the weak PCC, but rather the strong PCC, like French.

‘He gave me to you.’

*IO 2 > DO 1

2nd person DOs, however, seem to be less restricted than 1st person DOs. Arabic admits IO 1st > DO 2nd (unlike the Strong PCC), as the grammaticality of (10b) shows. On the other hand, it disallows *IO 3rd > DO 2nd (10a). Therefore the Ultrastrong PCC in Arabic appears to rely on a 1st > 2nd > 3rd hierarchy, where the direct object must be higher than the indirect object on the hierarchy. Put differently, assuming that 1st person is more marked than 2nd person, which is in turn more marked than 3rd, DOs may not be more marked than IOs in this language. As expected, 3rd person direct objects are not restricted at all, as illustrated by (11).

- (10) a. *ʔaʕtay- tu- hu:- **ka:**
gave- 1.SBJ- 3.DAT- 2.ACC
‘I gave you to him.’ *IO 3 > DO 2
- b. ʔaʕta- ni:- **ka:**
gave.3.SBJ- 1.DAT- 2.ACC
‘He gave you to me.’ IO 1 > DO 2
- (11) a. ʔaʕtay- ta- ni:- **hi:**
gave- 2.SBJ- 1.DAT- 3.ACC
‘You gave him to me.’ IO 1 > DO 3
- b. ʔaʕtay- tu- ka- **hi:**
gave- 1.SBJ- 2.DAT- 3.ACC
‘I gave him to you.’ IO 2 > DO 3

Like its weak and strong counterparts, the Ultrastrong PCC therefore restricts the distribution of 1st and 2nd person DOs, albeit with a further divide between 1st and 2nd person. The patterns of Classical Arabic are summed up in table 3.3, and can be described as stronger than the weak PCC (by disallowing 2nd > 1st) but weaker than the strong PCC (by allowing 1st > 2nd).

Table 3.3: Ultrastrong PCC (e.g. Classical Arabic)

IO	DO	
3	3	✓
1/2	3	✓
1	2	✓
3	1/2	✗
2	1	✗

Unlike what traditional descriptions suggest, the PCC is not restricted to languages which overtly mark *both* objects either in the form of two pronominal clitics or of two

agreement markers. The constraint also carries over to languages which only coindex *one* object by an agreement marker. This is for instance the case in the Bantu language Swahili, which only has one object agreement slot, as shown below.

- (12) *Swahili*
- a. Ni- li- **m-** nunulia **mwanangu** kitabu.
 SM.1SG- PST- OM1- buy.APPL 1child.POSS.1SG 7book
 ‘I bought the book for my child.’
- b. *Ni- li- **ki-** **m-** nunulia **mwanangu** **kitabu**.
 SM.1SG- PST- OM7- OM1- buy.APPL 1child.POSS.1SG 7book
 Int: ‘I bought it/something for my child.’ (Riedel 2009: 88)

Despite the fact that only one object, typically the IO, agrees, 1st or 2nd direct objects in DOCs are consistently disallowed when combined with a 3rd person IO, as in (13b), while 3rd person objects are grammatical, as shown in (13a).

- (13) a. U- li- *wa-* onyesha *watoto* **Juma**.
 SM2SG- PST- OM2- show 2children 1Juma
 ‘You showed Juma to the children.’ 3 IO > 3 DO
- b. *Ni- li- *mu-* onyesha *Maya* **wewe/pro_{2SG}**.
 SM1SG- PST- OM2SG- show 1Maya you
 Int: ‘I showed you to Maya.’ *3 IO > 1/2 DO

Both sentences are DOCs, featuring a 3rd person indirect object, *watoto* ‘children’ in (13a) and *Maya* in (13b), which trigger agreement on the verb (Swahili only agrees with IOs in ditransitives). In (13a), the direct object *Juma* is a 3rd person DP, while in (13b), it is a 2nd person pronoun, which can be dropped. While the former constitutes an acceptable sentence, the latter gives rise to ungrammaticality, consistent with the PCC. In contrast, the following sentence, with a 2nd person IO and a 3rd person DO, is grammatical.

- (14) A- li- *ku-* onyesha *pro_{2SG}* **Halima**.
 SM1- PST- OM2SG- show Halima
 ‘He showed Halima to you.’ 1/2 IO > 3 DO

Note that in the sentence in (14), the 2nd person object agreement marker may only be interpreted as referring to the indirect object: this sentence cannot be interpreted as *He introduced you to Halima*, where *you* would be the DO. Languages like Swahili thus exhibit PCC effects in the sense that in a DOC composed of an IO and a DO, the DO cannot be 1st or 2nd person, i.e. a 1st/2nd person can neither be interpreted as a DO nor realized as a form indexing the DO.

Finally, a combination of a 2nd person IO and a 1st person IO is grammatical, which is characteristic of the weak PCC. Swahili indeed seems to disallow *3 IO > 1/2 DO

combinations, but allows combinations of two 1st or 2nd person (1 IO > 2 DO and 2 IO > 1 DO, as (15) illustrates. The patterns found in Swahili correspond to those described above for Italian in table 3.2.

- (15) A- li- ku- onyesha *pro*_{2SG} mimi.
 SM1- PST- OM2SG- show me.
 ‘He showed me to you.’ (Riedel 2009:152) 1/2 IO > 1/2 DO

In summary, local persons, i.e. 1st and 2nd person, are constrained in their distribution in DOCs in a way that 3rd persons are not, an observation that spans across many languages. In particular, the generalization that emerges is that in a DOC, 1st and 2nd person items cannot be direct objects under certain conditions having to do with the presence and the person specification of the indirect object, while 3rd person items are seemingly unrestricted. Such constraints are found a great number of unrelated languages (see Haspelmath 2004 for an overview and references). Next to French, Italian, Basque, Classical Arabic, and Swahili, they can also be found in Catalan, Romanian, Spanish (Romance), Greek (Indo-European), Slovenian, Bulgarian (Slavic), Georgian (Kartvelian), Kiowa, Southern Tiwa (Kiowa-Tanoan), Kera (East Chadic), Hausa (West Chadic), Sambia, Haya, KiRimi, Lubukusu (Bantu), Hakha Lai (Tibeto-Burman), Kambera (Malayo-Polynesian), Warlpiri (Pama-Nyungan), Passamaquoddy, Ojibwe (Algonquian), Tetelcingo and Classical Nahuatl, O’odham (Uto-Aztecan).

3.1.2 PCC effects with reflexives

In a number of languages, reflexive direct objects are subject to the same constraint as 1st and 2nd person in DOCs. This pattern has been well-known for French (Anagnostopoulou 2005; Bonet 1991; Herschensohn 1980; Kayne 1975), but also obtains in several unrelated languages, as I illustrate in this section. It is not the case that every language that has the PCC with 1st and 2nd person automatically has it with reflexives. For instance, these patterns are found only in languages which have either weak pronominal/clitic reflexives or reflexive agreement markers, which does not necessarily correlate with the existence of weak 1st/2nd person pronouns. This section gives an overview of the patterns found in French and Swahili, but also Southern Tiwa, Warlpiri and Classical Nahuatl.

As introduced in section 3.1.1, French is subject to the strong version of the PCC, whereby 1st and 2nd person direct object clitics are disallowed in the presence of any indirect object clitic, while 3rd person DOs are unproblematic.

- (16) a. Ils le lui présentent.
 3PL.NOM 3SG.ACC 3SG.DAT introduce.PRS.3PL
 ‘They introduce him to him/her.’ 3 IO > 3 DO

- b. *Ils me/te lui présentent.
 3PL.NOM 1SG/2SG.ACC 3SG.DAT introduce.PRS.3PL
 ‘They introduce me/you to him/her.’ *3 IO > 1/2 DO

The French 3rd person reflexive clitic *se* has been reported to pattern like 1st/2nd person DOs in DOCs (Anagnostopoulou 2005; Bonet 1991; Herschensohn 1980; Kayne 1975). In the following example, direct object *se* is ungrammatical in combination with a 3rd person IO, mirroring the behavior of 1st/2nd person DO in (16b) above.

- (17) *Il se lui présente.
 3SG.NOM 3REFL.ACC 3SG.DAT introduce.PRS.3SG
 ‘He introduces himself to him/her.’ *3 IO > REFL DO

The parallelism between 1st and 2nd person clitics and 3rd person reflexive clitics carries over to contexts where the IO is 1st/2nd person, as predicted by the strong PCC. This is illustrated in the examples below, where 1st person, 2nd person and reflexive DO clitics are all ungrammatical in the presence of a 1st/2nd IO clitic, in contrast to non-reflexive 3rd person DOs.

- (18) a. Ils *me/te* le présentent.
 3PL.NOM 1SG/2SG.DAT 3SG.ACC introduce.PRS.3PL
 ‘They introduce him to me/you.’ 1/2 IO > 3 DO
- b. *Ils me/te *te/me* présentent.
 3PL.NOM 1SG/2SG.ACC 1SG/2SG.DAT introduce.PRS.3PL
 ‘They introduce me/you to you/me.’ *1/2 IO > 1/2 DO
- c. *Il se *me/te* présente.
 3SG.NOM 3REFL.ACC 1SG/2SG.DAT introduce.PRS.3SG
 ‘He introduces himself to me/you.’ *1/2 IO > REFL DO

3rd person reflexive clitics therefore are subject to the PCC in the same way that 1st/2nd person clitics are, as summed up in table 3.4. A detailed investigation of French can be found in chapter 5.

Table 3.4: PCC effects with reflexives (French, strong PCC)

IO	DO	
3	3	✓
3	1/2/REFL	✗
1/2/REFL	3	✓
1/2/REFL	1/2/REFL	✗

While this pattern is well-known for French, a cross-linguistic investigation reveals that this is also the case in a number of other languages. My own fieldwork on Swahili, a Bantu language, reveals similar patterns in the language. Recall that a 1st and 2nd person object can never be interpreted as a direct object in Swahili DOCs, regardless of whether it is marked on the verb or not (Swahili only allows agreement with one object). The same facts replicate with reflexive direct objects: in the presence of an indirect object, the direct object cannot be reflexive. (19) shows that a DOC with a 3rd person agreeing IO, *Juma*, and an overt reflexive DO is ungrammatical.

(19) *Swahili*

*Ni- li- mu- onyesha *Juma* mwenyewe.
 SM1SG- PST- OM1- show 1Juma self

Int: ‘I showed myself to Juma.’

*3 IO > REFL DO

Additionally, Swahili has a dedicated object agreement marker that surfaces when the agreeing object is reflexive, *-ji-*, introduced in 2.3.1.1 as anaphoric agreement (after Woolford 1999). This reflexive marker is also ruled out in the configuration above.

(20) *A- li- ji- julisha *Juma* pro_{REFL}/mwenyewe.
 SM1SG- PST- RFM- describe Juma self

Int: ‘He described himself to Juma.’

*3 IO > REFL DO

The reflexive marker may not co-index the DO in such a construction. It can thus be observed that Swahili rules out reflexive direct objects in DOCs, in the same way as it rules out 1st/2nd person DOs. The Swahili pattern is summed up in the table below. I leave aside for now the discussion of the interaction of reflexives with the weak PCC; all data from Swahili will be described in greater detail in chapter 6.

Table 3.5: PCC effects with reflexives (Swahili, weak PCC)

IO	DO	
3	3	✓
3	1/2/REFL	✗
1/2/REFL	3	✓
1/2	1/2	✓
1/2	REFL	✗
REFL	1/2	no data

Similar patterns are attested in Warlpiri (Pama-Nyungan, Legate 2002b; Stegovec

2015), which like Swahili only agrees with IOs in ditransitives.

(21) *Warlpiri*

Ngajulu-rlu kapi-rna-**ngku** karli-jarra punta-rni nyutu-ku
1SG.ERG FUT-1SG.SBJ-2SG.IO boomerang-DU take.away-NPST 2SG-DAT

‘I will take the boomerangs away from you.’ (Hale 1973: 333)

Warlpiri disallows 1st, 2nd and reflexive direct objects in DOCs, as opposed to 3rd persons direct objects.

- (22) a. *Ngaju-ku* ka-Ø-*ju* **karli** jarnti-rni
1SG-DAT PRS-3SG.SBJ-1SG.IO boomerang.ABS trim-NPST
‘He’s making me a boomerang.’ 1 IO > 3 DO
(Simpson 1991: 150)
- b. *Ngarrka-ngku kapi-Ø-*ji* punta-mi *ngaju-ku* **pro**_{2SG}.
man-ERG FUT-3SG.SBJ-1SG.DO away-NPST 1SG-DAT
‘The man will take you away from me.’ *1 IO > 2 DO
(Hale 1973: 334)
- c. *Yu-ngu-lu-*rla* **nyanungu-rra** *yurrunyu-ku*.
give-PST-3PL.SBJ-3.IO self police-DAT
‘They gave themselves to the police.’ *3 IO > REFL DO
(Legate 2002:173)

In (22a), the IO is the 1st person dative pronoun *ngajuku*, agreeing with the verb, and the DO is the absolutive 3rd person NP *karli* ‘boomerang’, forming a grammatical sentence. In contrast, in (22b) the DO is interpreted as a dropped 2nd person pronoun, giving rise to ungrammaticality. Note that Warlpiri has the strong PCC, disallowing IO 1st/2nd > DO 1st/2nd combinations. Finally, (22c) shows that a reflexive DO is equally ungrammatical.

Table 3.6: PCC effects with reflexives (Warlpiri, strong PCC)

IO	DO	
3	3	✓
3	1/2/REFL	✗
1/2/REFL	3	✓
1/2	1/2	✗
1/2	REFL	no data
REFL	1/2	no data

Rosen (1990), Baker (2008) and Harbour (2009) report that the Kiowa-Tanoan lan-

guage Southern Tiwa also exhibits PCC effects with 1st/2nd person and reflexive direct objects alike. Southern Tiwa has portmanteau agreement morphemes that encode agreement with the subject, the indirect object and the direct object. In ditransitives, agreement morphemes disallow the combination SBJ > IO > 1/2 DO, i.e. the direct object can only be 3rd person. This restriction takes the form of a gap in the agreement paradigm, which altogether lacks a form to express this given combination of arguments.

(23) *Southern Tiwa*

- a. Tow- wia- ban.
 1S:3S:**3P**- give- PST
 ‘I gave them to him/her.’ (Rosen 1990:677)
- b. *...- wia- ban.
 1S:3S:**2S**- give- PST
 ‘I gave you to him/her.’ (Rosen 1990:677)

This restriction carries over to reflexive direct objects. Southern Tiwa has a dedicated paradigm of portmanteau morphemes for agreement with reflexive agreements. This reflexive agreement paradigm appears to lack a morpheme encoding the combination of a reflexive direct object and an indirect object, as illustrated by the contrast between the transitive and ditransitive sentences below.

- (24) a. A- wini- ban.
 2S:**REFL**- stand- PST
 ‘You stood/stopped (yourself).’
- b. *...- wini- ban seuanide.
 2S:3S:**REFL**- stand- PST man.
 ‘You stopped (yourself) for the man.’

This data suggest that Southern Tiwa reflexive agreement is subject to the PCC, and in fact Rosen (1990) and later Baker (2008) already explicitly link these facts to the person restriction on ditransitives. Just as the language bans SBJ > IO > 1/2 DO combinations, it also bans SBJ > IO > REFL DO combinations. Southern Tiwa thus provides another example of reflexives patterning like 1st/2nd person in DOCs.

Table 3.7: PCC effects with reflexives (Southern Tiwa, strong PCC)

IO	DO	
3	3	✓
3	1/2/REFL	✗
1/2/REFL	3	✓
1/2/REFL	1/2/REFL	✗

Similar effects have been reported in the literature for various other languages, although these reports are often sporadic and rarely connected with the PCC. We can for instance find mention of the ungrammaticality of reflexive DOs in DOCs in Tzotzil (Mayan, Aissen 1987:113 cited in Malchukov et al. 2010:30) or in Mohawk (Iroquian, Baker 1996:202 cited in Baker and Souza 2019:36).

(25) *Tzotzil*

7i-y-ak'-be s-ba li mayoletik-e
ASP-3ERG-give-APPL 3-self DET police-CL

'The police gave it to themselves.'

NOT: He gave himself to the police. (Aissen 1987:113)

(26) *Mohawk*

Sak wa-h-atat-u-'
Sak PST-3MSG-REFL-give-PFV

'Sak gave it to himself.'

NOT: 'Sak gave himself to it/her.' (Baker 1996:202)

Potentially parallel data with reflexives is reported in Classical Nahuatl (Uto-Aztecan), which Baker (2008) cites as a PCC-languages with 1st/2nd person.⁴ Stiebels (1999), based on data from Launey (1979), reports that similar observations can be made in the case of reflexive DOs. The combination of a reflexive affix and another 3rd person affix only seems possible if the reflexive is interpreted as the indirect object, as in (27a), but ungrammatical if the reflexive is the DO (27b).

- (27) a. ka:mpa ni-**k-no**-k^wi:-li:-s in no-tlak^wal
 where 1SG.SBJ-3SG.OBJ-1SG.REFL-take-APPL-FUT the 1SG.POSS-food
 Where will I procure food for myself? REFL IO > 3 DO
 (Launey 1979:196 in Stiebels 1999:802)
- b. *ni-**no-k**-tti-tia
 1SG.SBJ-1SG.REFL-3SG.OBJ-see-CAUS
 Int: I show myself to him/her. *3 IO > REFL DO
 (Stiebels 1999:800)

A deeper investigation into the patterns of Classical Nahuatl in chapter 7 will nevertheless reveal that this generalization in fact holds neither for 1st/2nd person nor for reflexives.

In several unrelated languages, reflexive weak pronouns or agreement markers thus behave like 1st and 2nd person in DOCs: they are banned from occurring as direct objects,

⁴Thanks to Barbara Stiebels (p.c.) for pointing me to the Nahuatl data.

thereby obeying the PCC. PCC effects with reflexives, although reported in the literature (see references in this section), have largely been left unaccounted for. French constitutes an exception, since, as I will show in the following section, several accounts have tried to integrate reflexive *se* into their analysis, albeit in a peripheral manner. However, such proposals are not without problems, and importantly do not take into account the cross-linguistic scope of the phenomenon. The behavior of reflexives in ditransitives thus remains a puzzle for theories of the PCC.

Furthermore, these patterns have never been taken into account by theories of anaphoric binding (with the recent exception of Sundaresan 2020). Yet, restrictions on reflexives in DOCs offer a valuable testing ground to explore the featural content of reflexives. In the same way as syntactic restrictions on reflexives such as the Anaphor-Agreement Effect favor one hypothesis over the other (in this case, the φ -hypothesis), PCC effects can shed light on the issue of the featural content of reflexives. The fact that reflexives behave on a par with 1st/2nd person allows us to hypothesize that they have a common featural basis. The intersection between the domain of binding and that of person licensing is all the more relevant that, as the following section will explicitly address, PCC effects with 1st/2nd person have been analyzed in terms of φ -agreement requirements of 1st/2nd person pronouns. The predictions of a φ -based approach to person licensing can thus be evaluated against the behavior of reflexive anaphors and against the predictions of a φ -based approach to binding, showing that reflexives represent an actual challenge to current theories of the PCC and person licensing in terms of φ -features, and do not readily fit into the mould. Furthermore, just as the previous chapter showed the independent challenges faced by binding as φ -agreement, this chapter will show that classical φ -based approaches to the PCC face a number of independent theoretical and empirical shortcomings, which I argue undermine their overall validity. This chapter therefore concludes that the behavior of not only reflexives, but also 1st/2nd person pronominals cannot be straightforwardly explained by an approach to person licensing in terms of φ -licensing.

3.2 Previous accounts of the Person-Case Constraint

In order to understand how the parallel behavior of reflexives with 1st/2nd person in DOC can illuminate a syntactic theory of reflexives, this section will introduce current syntactic analyses of the PCC.

3.2.1 The PCC as syntactic intervention

The most influential account of the PCC in the generative framework is the syntactic analysis initiated by Béjar and Rezac (2003) and since then developed in different versions by Adger and Harbour (2007); Anagnostopoulou (2003, 2005); Nevins (2007); Pancheva and

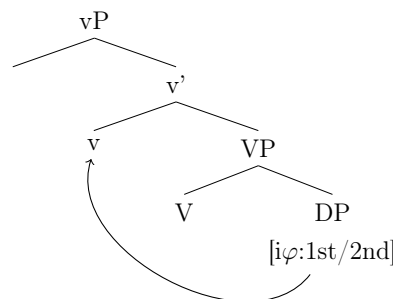
Zubizarreta (2017); Preminger (2019b); Stegovec (2020) among others. Although several other types of accounts have been proposed in the literature (see for instance Haspelmath (2004) for a usage-based explanation, Bonet (1991) for a morphological account, or Silverstein (1976), Rosen (1990) and Aissen (1999) for an analysis in terms of harmonic alignment of scales), here I will focus exclusively on the syntactic accounts. At the core of these syntactically-driven accounts of the PCC are two main insights.

The first one is driven by the 1st/2nd vs 3rd person opposition in PCC contexts: 1st and 2nd person share a property, a special requirement which is absent in 3rd persons and which restricts their distribution in certain syntactic contexts such as DOCs. This requirement is first formulated by Béjar and Rezac (2003) as the Person-Licensing Condition.

- (28) *Person Licensing Condition* (PLC): An interpretable 1/2 feature must be licensed by entering into an Agree relation with a functional category. (Béjar & Rezac 2003: 53)

Béjar and Rezac's PLC makes a double claim, namely that (i) 1st/2nd person items must be specially licensed and (ii) that this licensing is achieved via agreement of their 1st/2nd person features with a functional head. This is schematized below for a 1st/2nd person object DP, which agrees with the functional head *v* to be licensed.

(29)

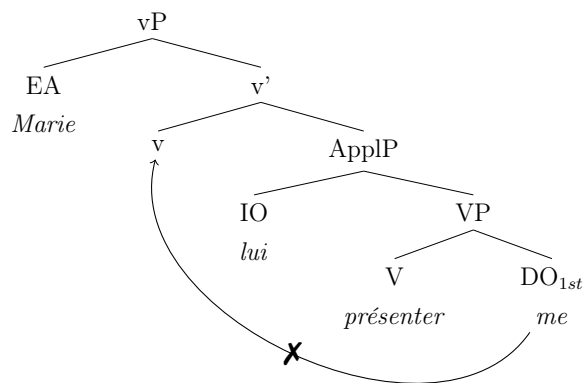


While the PLC has been reformulated since then (e.g. Baker 2008; Preminger 2019a), its central insight has remained, which captures the generalization that 1st and 2nd person pronouns require certain syntactic conditions (in particular, a relationship with a functional head established by Agree) in order to be licensed.

The second insight of these analyses is that PCC effects arise in configurations in which there is one licensing or agreeing head, typically understood as *v*, and two arguments, where the structurally higher argument intervenes between the lower argument and the functional head, preventing an Agree relation to be established between them. Indeed, the PCC typically restricts the occurrence of 1st and 2nd person direct objects, while that of 1st and 2nd person indirect objects is unconstrained. This follows from the fact

that in DOCs, indirect objects are generated higher than direct objects. Indirect objects originate either in the specifier of an Applicative Phrase (ApplP), or in the specifier of an intermediate vP, while direct objects are selected as complements of V. This gives rise to the configuration in (30b), illustrated for the ungrammatical sentence in (30a) (the surface word order is derived by movement of the verb and the clitics to T later on).

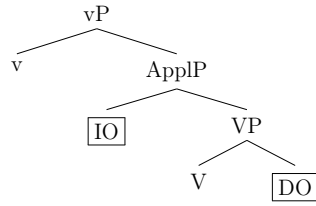
- (30) a. *Marie me lui présente.
 Marie 1SG.ACC 3SG.DAT introduce.PRS.3SG
 Int: 'Marie introduces me to him/her.' *IO 3SG > DO 1SG
- b.



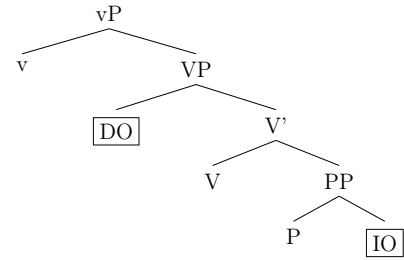
Given this structure, and given the PLC in (28), indirect objects are expected to structurally intervene for a 1st and 2nd person direct object to satisfy its licensing requirement by Agreeing with v. Indeed, principles of Relativized Minimality (Rizzi 1990b) dictate that an element Y (here the IO) will disrupt the relation between X (v) and Z (the DO) if Y structurally intervenes between X and Z, and Y matches the specification in morphosyntactic features of X, in a sense that will be developed shortly below.

PCC effects can thus be reduced to intervention by an indirect object for the licensing of a 1st and 2nd person direct object. consequently, PCC effects are only expected to hold in configurations where the indirect object is higher than the direct object, and thus intervenes. This predicts that the PCC should be obviated in the reverse configuration, i.e. when the direct object c-commands the indirect object. This prediction is known to be borne out. As shown by a large body of research, many languages have two distinct structures for ditransitives, represented in (31) and (32) below and corresponding to examples (33a) and (33b) respectively.

(31) Double object construction



(32) Prepositional dative construction



- (33) a. Marie le **lui** a présenté.
 Marie 3MSG.ACC 3.SG.DAT have.PRS.3SG introduce.PTCP
 ‘Marie introduced him to him/her.’
- b. Marie l’ a présenté [_{PP} à **Thomas**].
 Marie 3MSG.ACC have.PRS.3SG introduce.PTCP to Thomas
 ‘Marie introduced him to Thomas.’

In the first structure, labelled double object construction (DOC), the indirect object is generated higher than the direct object, e.g. licensed by an applicative phrase, as in (31). In the second, often referred to as prepositional dative constructions, the indirect object is generated lower than the direct object, e.g. licensed by a PP, as in (32).⁵

This dichotomy is found in French, in which PCC effects only arise in structures like (31), corresponding to two clitic objects (true DOCs). In contrast, prepositional dative constructions like (32) correspond to sentences like (34), where the indirect object is introduced lower as a PP and which are immune to the PCC (Anagnostopoulou 2003; Cuervo 2003; Demonte 1995; Fournier 2010; Rezac 2008; Sheehan to appear).

- (34) a. Marie **[t’]** a présenté [_{PP} à Thomas].
 Marie 2SG.ACC have.PRS.3SG introduce.PTCP to Thomas
 ‘Marie introduced you to Thomas.’
- b. Marie **[m’]** a présenté [_{PP} à toi].
 Marie 1SG.ACC have.PRS.3SG introduce.PTCP to 2SG
 ‘Marie introduced me to you.’
- c. Marie **[s’]** est présenté [_{PP} à Thomas/toi].
 Marie REFL.ACC be.PRS.3SG introduce.PTCP to Thomas/2SG
 ‘Marie introduced herself to Thomas/you.’

In these examples, the indirect object is introduced by the dative marking preposition *à* ‘to’, and 1st and 2nd person and reflexive direct objects are perfectly licit. The fact that no restrictions hold of 1st/2nd person and reflexive direct objects in those cases follows straightforwardly from the fact that the dative does not intervene between the DO and

⁵Although I do not take a stand in this respect, the question arises as to whether the indirect object in (32) is an argument of the verb and a ‘true’ indirect object or whether it is selected by the preposition P, the verb therefore not being a real ditransitive.

the licensing head v (see [Rezac 2008](#) for parallel argument in Basque).

Different varieties of the PCC can be accounted for by looking into what constitutes an intervener for Agree and why. In languages like French which have the Strong PCC, any indirect object constitutes an intervener for licensing a 1st/2nd person DO. On the other hand, in other varieties of the PCC, such as the Weak PCC and the Ultrastrong PCC, only some datives act as interveners for person licensing. In Italian (Weak PCC), only 3rd person datives are interveners. In Arabic (Ultrastrong PCC), intervention by an IO is determined by whether the DO is higher or lower in the articulated person hierarchy. The patterns observed in these languages imply that the features of the indirect object matter for intervention. To account for this, subsequent theories of the PCC have appealed to feature hierarchies and cross-linguistic parametrization of probes and/or goals. I will take [Anagnostopoulou \(2005\)](#)'s theory of the weak and strong PCC as an example of this.

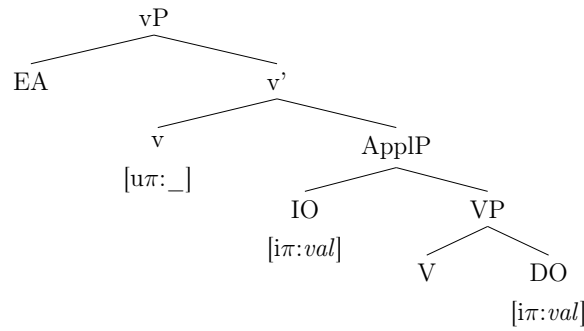
In [Anagnostopoulou's](#) (and others') interpretation of the PLC, a 1st or 2nd person item must be licensed by entering into a φ -agreement relationship with v , i.e. by valuing the unvalued uninterpretable person features $[u\pi: _]$ present on v . Person licensing is therefore construed as dependent on φ -agreement: a 1st/2nd person pronoun can satisfy the PLC by satisfying v 's φ -probe. Most accounts remain unclear as to whether this is a requirement of the person probe itself, which is directly satisfied by φ -valuation or if person licensing happens indirectly as a reflex of φ -agreement, in the same way that Case has been thought to be licensed on nominals as a reflex of φ -agreement (see [Kaur 2016](#); [Stegovec 2020](#)).

In order for datives to act as interveners between v 's φ -probe and the DO's person/participant (π) feature, all that is needed is that the IO also bears valued π -features, as per Relativized Minimality. [Anagnostopoulou \(2005\)](#) assumes that all datives, including 3rd person datives, must have valued person features, be they positively or negatively specified, i.e. $[i\pi: +\text{PARTICIPANT}]$ for 1st/2nd person datives or $[i\pi: -\text{PARTICIPANT}]$ for 3rd person ones. Indirect motivation for this assumption is drawn from the fact that dative arguments often represent point of view, affectedness or animacy, properties that would be encoded by the presence of PARTICIPANT features ([Adger & Harbour 2007](#); [Pancheva & Zubizarreta 2017](#)). Pronouns are thus taken to have the following person specifications.

- (35) 1st person $[+\text{PARTICIPANT}, +\text{SPEAKER}]$
 2nd person $[+\text{PARTICIPANT}, -\text{SPEAKER}]$
 3rd person (dative) $[-\text{PARTICIPANT}]$
 3rd person (accusative) $[\emptyset]$

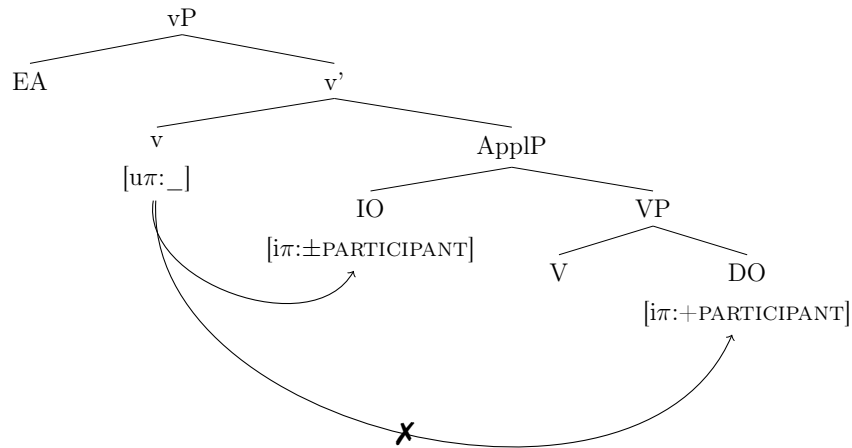
Double object constructions like the ones illustrated in (30b) above therefore give rise to a one probe-two goals configuration, in which the probe in v can theoretically be checked by two objects, the higher IO and the lower DO, as illustrated in (36).

(36)



Given the higher structural position of the IO, it is closer to v , and therefore is the first candidate to check v 's person features. In a language like French, the configuration depicted in (36) gives rise to the following scenario. The dative bears $[i\pi: \pm \text{PARTICIPANT}]$ features (depending on whether it is 3rd or 1st/2nd person), and being closest to v , it entirely satisfies the $[u\pi]$ probe on v . This puts a stop to the probe's search, and no further agreement may obtain with the direct object. When the DO is 1st/2nd person, this results in ungrammaticality, as the PLC is violated: a 1st or 2nd person DO cannot establish the Agree relation it needs to be licensed by v .

(37)



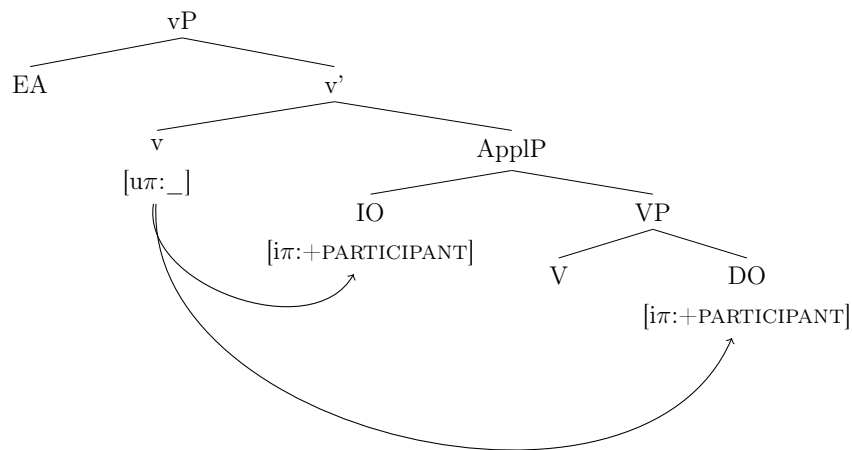
A 3rd person direct object on the other hand yields no such problem, since there is no condition requiring it to enter into an Agree relation with v . In other words, v still fails to Agree with the DO, but this failure does not have any consequence in this case. In French then, which has the strong PCC, any indirect object intervenes for licensing of the direct object. French simply does not have the possibility for a probe like v to establish multiple Agree relations with different objects. [Anagnostopoulou \(2005\)](#) argues that this is a matter of parametrization of the probe. In languages that have the Weak PCC, like

Italian, Multiple Agree is available, i.e. a probe may agree with multiple goals, overriding dative intervention. However, one needs to account for the fact that such a probe may not enter multiple agree relations with *any* goals. Italian allows IO 1st/2nd > DO 1st/2nd combinations, but disallows *IO 3rd > DO 1st/2nd combinations. In other words, only 3rd person datives constitute interveners for person licensing. Anagnostopoulou argues that this is due to a condition on Multiple Agree, namely, Multiple Agree can only take place when the feature specifications of both goals do not conflict with each other. To see how this works, one must rely on features hierarchies as postulated by Harley and Ritter (2002) among others. Imagining a binary feature system (where each feature can be positively or negatively valued), person feature specifications are modelled as follows.

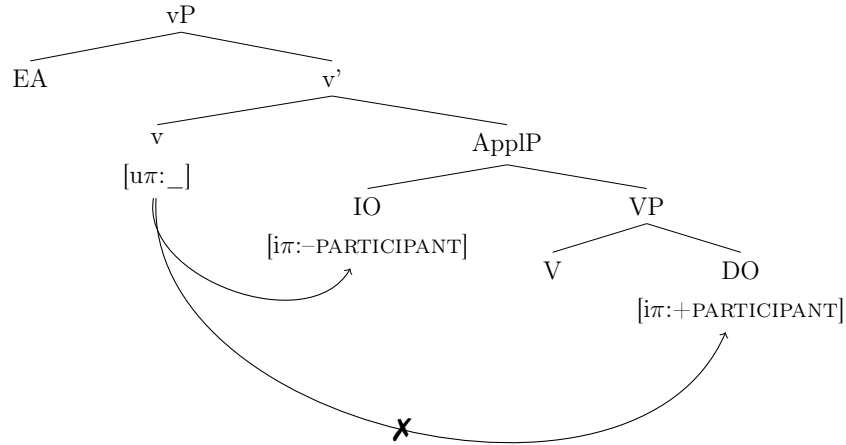
- (38) 1st person [+PARTICIPANT, +SPEAKER]
 2nd person [+PARTICIPANT, -SPEAKER]
 3rd person [-PARTICIPANT]

Given this, and assuming that the probe in v targets PARTICIPANT features, v will have no problem agreeing with, say, a 1st person indirect object and a 2nd person direct object, since both bear a [+PARTICIPANT] and therefore share one and the same value with v, as depicted in (39). In contrast, agreement with a 3rd person dative with [-PARTICIPANT] and a 2nd person direct object with [+PARTICIPANT] results in conflicting feature specifications on v, and in ungrammaticality, as in (40).

- (39) IO 1st > DO 2nd : [+PARTICIPANT] > [+PARTICIPANT]



- (40) $*_{IO} 3^{rd} > DO 2^{nd} : [-PARTICIPANT] > [+PARTICIPANT]$



In order to stay internally consistent, such accounts must additionally rely on the assumption that while dative 3^{rd} persons are $[-PARTICIPANT]$, accusative 3^{rd} persons must bear no person specification whatsoever. Indeed, Italian (like French), allows IO $1^{st}/2^{nd} > DO 3^{rd}$ combinations.

- (41) *Me/te lo ha affidato.*
 1SG/2SG.DAT 3SG.ACC have.PRS.3SG entrust.PTCP
 ‘He entrusted him to me/you.’ IO $1^{st}/2^{nd} > DO 3^{rd}$

Assuming that the condition on Multiple Agree holds throughout the language, if accusative 3rd persons were $[-PARTICIPANT]$ like datives, IO $1^{st}/2^{nd} > DO 3^{rd}$ would be wrongly ruled out by the system, since it would result in a feature conflict: $*[+PARTICIPANT] > [-PARTICIPANT]$. In order to prevent this, one must indeed assume two types of 3^{rd} person: those that are specified for $[-PARTICIPANT]$, e.g. dative 3^{rd} person, and those that are merely unspecified, e.g. accusative 3^{rd} person. This is why the relevant feature specifications are construed as (35) above, repeated here.

- (42) 1^{st} person $[+PARTICIPANT, +SPEAKER]$
 2^{nd} person $[+PARTICIPANT, -SPEAKER]$
 3^{rd} person (dative) $[-PARTICIPANT]$
 3^{rd} person (accusative) $[\emptyset]$

Similar accounts can be developed for other variants of the PCC. For instance, Nevins (2007) proposes to account for different varieties of the PCC with relativized probes on v, i.e. probes sensitive to different features in different languages. In languages that have the Ultrastrong PCC, probes would, for instance, be relativized for SPEAKER features

rather than PARTICIPANT features. While Nevins (2007) attributes the variation to lexical variation of v , Stegovec (2020) proposes that it is the featural make up of pronouns that differ cross-linguistically. Similarly, in Raynaud (2018), I have argued that the fact that all datives intervene in French but not in Italian is due to different featural make up of datives across the two languages – namely, French datives have a full φ -specification, saturating the probe’s features, while Italian datives are only specified for person, leaving the probe on v to search further for number and gender features. This hypothesis is reexamined and revised in chapter 4. Variation can thus be explained by different featural make up of probes and/or goals, allowing some indirect objects to be transparent for person licensing, i.e. allowing 1st or 2nd person direct objects to agree with v across a potential intervener.

PCC effects therefore ultimately are all taken to stem from the requirement that local persons, unlike 3rd persons, must be licensed (the PLC), a requirement that fails to be met in the presence of a syntactic intervener (be it defective or relativized). Abstracting away from the details of particular analyses, this section has shown that 1st and 2nd person weak items require special licensing, an hypothesis supported by the ungrammaticality that results when this licensing requirement is not satisfied, i.e. PCC effects. I have not addressed here the question of why only clitics, weak pronouns and agreement morphemes are subject to the PCC – this shall be discussed in section 4.3.

3.2.2 The Person Licensing Condition: a φ -feature based approach

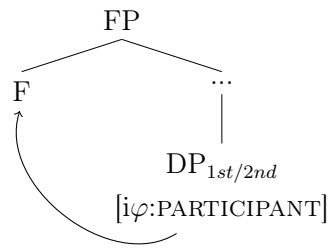
The exceptional behavior of 1st and 2nd person cross-linguistically begs the question of why they would be subject to such particular restrictions, which 3rd person would be immune to. The answer that has been provided takes the form of the Person Licensing Condition (PLC), whose different formulations restate the special status of 1st and 2nd person pronouns and the abstract requirements that govern their grammatical expression, i.e. their licensing conditions. This section shall introduce the PLC in more details, before considering its shortcomings, both empirical and theoretical, in the remainder of this chapter.

The PLC, as introduced above, was first formulated by Béjar and Rezac (2003) as (43), illustrated in (44).

(43) *Person-Licensing Condition (PLC)* (Béjar & Rezac 2003: 53)

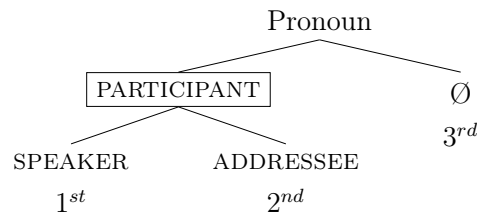
An interpretable 1/2 person feature must be licensed by entering into an Agree relation with a functional category.

(44)



Béjar and Rezac (2003)’s PLC makes two seminal contributions. First, it attributes the common behavior of 1st and 2nd person items to their interpretable person features. Following them, it has been widely assumed that 1st and 2nd person features, standardly understood as interpretable and valued on 1st/2nd person DPs, are the features triggering person effects. In a feature hierarchy such as the one proposed by Harley and Ritter (2002) and schematized below, this corresponds to PARTICIPANT features, present on both 1st and 2nd person pronouns.

(45)



Second, this original PLC states that the requirement that must be obeyed is that these interpretable person features enter into an Agree relation, in the minimalist sense of the term, with a functional category (like T or v). Although Béjar and Rezac (2003) themselves do not specify whether the corresponding person feature on the functional head is uninterpretable and unvalued, it is usually assumed that it is (e.g. Adger and Harbour 2007; Anagnostopoulou 2005). If the Agree relation between the 1st/2nd person item and the functional head cannot take place, licensing fails, as is the case when indirect objects intervene, resulting in PCC effects.

The link between person licensing and person φ -agreement is further reaffirmed in Preminger’s (2019b) version of the PLC.

(46) *Person-Licensing Condition (PLC)* (Preminger 2019b:7)

A [PARTICIPANT] feature on a DP that is a canonical agreement target must participate in a valuation relation.

Like Béjar and Rezac (2003), Preminger’s (2019b) definition uses PARTICIPANT features as defining the set of elements covered by the PLC. He adds a further condition on this

connection between φ -agreement and the PCC is discussed further in section 4.3.3, where I offer an alternative explanation for these facts that undermines Preminger's (2019b) approach to the PLC and PCC effects.

According to the approaches outlined here, the PCC is thus a result of structural intervention of the IO for agreement between a φ -probe on *v* and a [PARTICIPANT] feature on a 1st/2nd person DO, which the PLC requires to be licensed by φ -agreement. In the next section, I show that this analysis is challenged by the behavior of reflexives in DOCs.

3.3 Empirical challenges: PCC effects with reflexives and 3rd persons

Given the parallel behavior of reflexives with 1st/2nd person in DOCs, a salient analytical possibility to account for restrictions on reflexives would be to assume that they fall under the same syntactic requirement as that proposed by the theories of person licensing outlined in the previous section. This would imply that reflexives, like 1st/2nd person pronouns, bear a [PARTICIPANT] φ -feature which requires agreement with a functional head in order to be licensed. However, this section will show that reflexives and other 3rd person items pose challenges for classical approaches of the PCC in terms of [PARTICIPANT] features, which cannot readily account for their behavior, especially within a φ -based approach to binding.

3.3.1 When 3rd person behaves like 1st/2nd person

The PLC, as well as accounts of the PCC relying on it, is shaped to capture the 1st/2nd vs 3rd person dichotomy by attributing the requirement for licensing to PARTICIPANT features, which are a prerogative of 1st/2nd person. However, section 3.1.2 has shown that reflexive anaphors, including 3rd person reflexives such as *se*, are subject to PCC effects, in the same way as 1st/2nd person pronouns. Since classical accounts of the PCC take [PARTICIPANT] features to be responsible for person restrictions, a reflexive like *se* would then have to be assumed to have some version of a [PARTICIPANT] feature in order to be subjected to the same restrictions as 1st and 2nd person items, despite being exclusively 3rd person. This appears to contradict basic assumptions regarding the architecture of person features, in which 3rd person and 1st/2nd person are usually signalled by mutually exclusive featural specifications, i.e. [\emptyset] vs [PARTICIPANT] in a privative feature system, or [−PARTICIPANT] vs [+PARTICIPANT] in a binary system. The behavior of reflexives, and more particularly 3rd person reflexives, is thus puzzling within the theories of person and person licensing introduced above. This section will first show that reflexives are however not the only class of 3rd person which obey the PCC, before outlining the theoretical

responses that have been put forward in the literature, introducing finer-grained nuances in person systems.

3.3.1.1 PCC effects with other 3rd persons

Reflexives are not the only non-1st/2nd person elements that have been reported to show person effects. PCC effects have indeed been documented for 3rd person animate pronouns in certain dialects of Spanish and with 3rd person bound pronominals in French, Spanish and others.⁶

Spanish *le/lo* In certain northern dialects of Spanish, known as Leismo dialects, the PCC affects certain combinations of 3rd person IO and 3rd person DO.⁷ Unlike Standard Spanish, Leismo dialects make a morphological distinction between animate and inanimate 3rd person accusative pronouns. As illustrated in the examples below, the clitic *le* is used to refer to animate direct objects, while *lo* is used for an inanimate one.

- (49) a. **Lo** vi.
 3.M.ACC-*ANIM* saw
 ‘I saw it.’
 b. **Le** vi.
 3.M.ACC+*ANIM* saw
 ‘I saw him.’

Table 3.8: 3rd person pronouns in Leista Spanish

		MASCULINE	FEMININE
ACCUSATIVE	ANIMATE	le	la/le
	UNMARKED	lo	la
DATIVE		le	

As reported by Ormazabal and Romero (2007), the animate 3rd person direct object clitic *le* is subject to the PCC in the same way as 1st and 2nd person direct object clitics, while *lo* is not, behaving in this respect like a typical 3rd person.

- (50) a. Te lo di.
 2SG.DAT 3.M.ACC-*ANIM* gave

⁶For person effects with 3rd person beyond DOCs, see also Kaur (2017) and Kaur and Raynaud (2019) for restrictions on the Punjabi 3rd person non-honorific clitic *suu* in subject-object combinations.

⁷This is different from so-called *Spurious se* effects in standard Spanish (Nevins 2007; Perlmutter 1971) and Barceloni Catalan (Bonet 1995, Walkow 2010), which also seem to ban 3 > 3 clitic combinations in ditransitives. However, these are shown by Nevins (2007) and Walkow (2010) to be morphological effects and to not follow from licensing failures.

- ‘I gave it to you.’ IO 2SG > DO 3SG.–ANIM
- b. *Te le di.
 2SG.DAT 3.M.ACC+ANIM gave
 Int: ‘I gave him to you.’ *IO 2SG > DO 3SG.+ANIM

Like was the case with 3rd person reflexives, these patterns are unexpected if the PLC targets PARTICIPANT features, seeing as *le* is 3rd person.

3rd person bound pronouns Another case of PCC effects involving 3rd person pronouns is the so-called Clitic Binding Restriction (CBR) found in French and Spanish, but also Catalan, Serbo-Croatian and Czech (Bhatt & Šimík 2009; Charnavel & Mateu 2015; Ormazabal & Romero 2007; Roca 1992). Recall from section 3.1.1 that French allows combinations of a 3rd person DO clitic with a 3rd person IO clitic, contrary to what is observed with 1st or 2nd person DOs.

- (51) Marie le lui présente.
 Marie 3SG.ACC 3SG.DAT introduce.PRS.3SG
 ‘Marie introduces him to him/her.’ IO 3SG > DO 3SG

However, such 3 > 3 clusters are banned in one particular configuration in the language, i.e. when the 3rd person DO of an embedded verb is bound by the matrix subject. As can be observed in example (52a), a 3rd person accusative clitic *la* ‘her’ in an embedded clause can corefer with the matrix subject *Anne*. However, if the accusative clitic is clustered with a dative clitic, as in (52b), coreference between the accusative clitic and the matrix subject is disallowed, yielding an ungrammatical 3 > 3 clitic cluster.

- (52) a. Anne_i croit qu’ on va la_{i/j} recommander au patron pour la
 Anne thinks that s.o. will 3FSG.ACC recommend to.the boss for the
 promotion.
 promotion.
 ‘Anne_i thinks that they will recommend her_{i/j} to the boss for the promotion.’
- b. Anne_i croit qu’ on va la_{*i/j} lui_k recommander, au
 Anne thinks that s.o. will 3FSG.ACC 3SG.DAT recommend to.the
 patron_k, pour la promotion.
 boss for the promotion.
 ‘Anne_i thinks that they will recommend her_{*i/j} to him, the boss, for the
 promotion.’ (Charnavel & Mateu 2015: 672)

Once again, a 3rd person item seems to be subject to the same licensing condition as 1st and 2nd person pronouns, as they are restricted in similar environments.

The existence of multiple cases of 3rd person items behaving like 1st/2nd person casts doubt on the validity of accounts of the PCC that rely on PARTICIPANT features, as it

seems to obviate the 1st/2nd vs 3rd person distinction that constitutes the basis of these accounts.

3.3.1.2 3rd persons are PERSON too?

The characterization of the PLC in terms of 1st and 2nd person or PARTICIPANT features fails to account for the data described above, which all involve 3rd person clitics or agreement markers which pattern like 1st and 2nd person for PCC effects. This data has not gone unnoticed, and previous accounts have tried to allow for these cases by endowing select 3rd person pronouns with some version of PARTICIPANT features or by widening the scope of the PLC to, for instance, π or PERSON features.

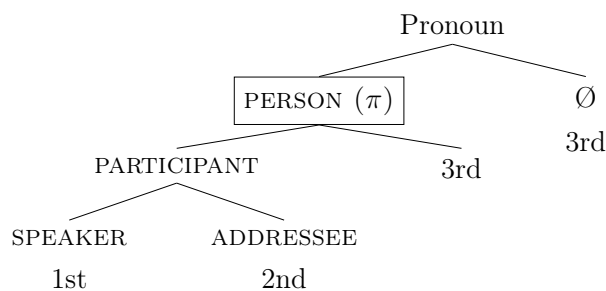
One such proposal is formalized in Béjar and Rezac (2009), who propose a revised version of the PLC:

(53) *Person-Licensing Condition (PLC)* (Béjar & Rezac 2009: 46)

A π -feature [F] must be licensed by Agree of some segment in a feature structure of which [F] is a subset.

While the added technicality of entailment hierarchies between features is beyond the scope of the present discussion, an interesting modification is the replacement of the 2003 characterization 1st/2nd person features by the phrase π -feature. π stands for PERSON features, which no longer only concern 1st/2nd person per se, but any DP (1st/2nd/3rd) that has a π /PERSON feature, be it further specified for PARTICIPANT or SPEAKER or not (explicitly following Adger and Harbour 2007). This is schematized below:

(54)



As is made clear by the visual illustration of this feature hierarchy, such a claim amounts to the existence of two 3rd persons, i.e. the ones which have a π /PERSON feature and the ones that do not.

Another equivalent possibility would be to work in an enriched feature system, where person can have three different values [\emptyset], [$-\text{PARTICIPANT}$] or [$+\text{PARTICIPANT}$]. This proposal effectively entails that there are two different kinds of 3rd person, respectively [\emptyset] and [$-\text{PARTICIPANT}$], as originally proposed by Benveniste (1966) and since then

implemented in many works on person (Adger & Harbour 2007; Anagnostopoulou 2003, 2005; Bonet 1991; Kayne 2000; Ritter 1995; Sundaresan 2020; Taraldsen 1995). [+PARTICIPANT] is reserved to 1st and 2nd person items. Taking the example of French *se*, if one takes *se* to be [+PARTICIPANT], one again fails to restrict it to 3rd person antecedents, because of the feature mismatch with the antecedent. This system however has another option, namely to take *se* to be [−PARTICIPANT] and to assume that Person Licensing/PCC targets *all* values of [\pm PARTICIPANT]. Regular, i.e. non-reflexive 3rd person, would then be unspecified for person features altogether, i.e. have a [\emptyset] person feature, excluding them from the scope of PCC effects. This proposal results in the following feature partition.

(55)	+PART, +AUTH	1 st person
	+PART, -AUTH	2 nd person
	-PART	3 rd person
	\emptyset	3 rd person

These proposals thus aim to fit reflexives and other PCC-sensitive 3rd person items into existing accounts of the PCC. However, they face significant challenges. In the remainder of this section, I will first show how postulating PARTICIPANT or PERSON features on 3rd person reflexives is a problem for φ -based theories of binding, before showing how such features are more generally problematic within the frame of the PLC.

3.3.2 A challenge for φ -based theories of binding

The first issue faced by such proposals is one that is specific to reflexives, and constitutes a problem for theories of binding as φ -agreement. To see this, consider the case of French reflexives. *Se* is exclusively and unambiguously a 3rd person item, as evidenced by the fact that it may not take 1st or 2nd person antecedents, as shown in (56).

- (56) Je_i *se_i/me vois dans le miroir.
 1SG.NOM *REFL/1SG.ACC see.PRS.1SG in the mirror
 ‘I_i see myself_i in the mirror.’

A 3rd person reflexive like *se* which obeys the PCC thus gives rise to a paradox within φ -based approaches to binding such as those outlined in the previous chapter. According to these approaches, a reflexive anaphor is born without φ -values or even φ -attributes, and obtains them by agreement with a valued antecedent. Anaphors are thus predicted to match their antecedents’ features (Heinats 2008; Kratzer 2009; Reuland 2011; Rooryck & Vanden Wyngaerd 2011). The corresponding prediction is that for a reflexive to be specified for [−PARTICIPANT], its antecedent would also need to be [−PARTICIPANT] to transmit it this value. But *se* only takes 3rd person DP or pronominal antecedents, which

are standardly assumed to be underspecified for person $[\emptyset]$ and hence cannot transmit a $[-\text{PARTICIPANT}]$ feature to the anaphor. Taking such antecedents to be specified for $[-\text{PARTICIPANT}]$ too would have the unwanted consequence of removing the distinction between special 3rd person elements like reflexives, which are subject to the PCC, and other 3rd person items, which are not.

Note that not all reflexive forms that are subject to the PCC are specific to 3rd person like *se*. For instance, the Swahili verbal reflexive marker *-ji-* is invariant and can be used across person specifications (see chapter 6). One could thus hypothesize that a single feature specification, e.g. the feature $[\pm\text{PARTICIPANT}]$, underlies 1st, 2nd and 3rd person reflexives alike. However, this does not alleviate the φ -matching problem when the antecedent is 3rd person: since reflexives must match the features of their antecedent, a 3rd person reflexive bearing $[-\text{PARTICIPANT}]$ is in principle incompatible with a 3rd person antecedent bearing $[\emptyset]$ -person.

In order to maintain a view of binding as φ -Agree while circumventing the φ -matching problem, theories that take 3rd person reflexives to be specified for $[-\text{PARTICIPANT}]$ features must therefore assume that they are born with that $[-\text{PARTICIPANT}]$ feature, and do not inherit it from their antecedent. This is for instance the position taken by Sundaresan (2020), who argues that there are different classes of anaphors. Some, which do not obey the PCC, are born thoroughly underspecified for φ -features, while others, like *se*, could be inherently valued for e.g. $[-\text{PARTICIPANT}]$ and only agree with their antecedents for number and gender. However, while this solution might appear locally adequate to deal with reflexives, the following subsection will show that there are independent concerns against the attribution of $[\text{PARTICIPANT}]$ features to 3rd person items.

3.3.3 PERSON features on 3rd persons: wider issues and challenges

Even outside of the scope of binding as φ -Agree, the solution that consists in endowing PERSON or PARTICIPANT features to certain 3rd person items to account for their 1st/2nd person-like behavior raises several problematic issues, that ultimately undermine the adequacy of PERSON or PARTICIPANT features as the relevant feature in person licensing.

First of all, it is not clear how the presence of a PERSON/PARTICIPANT feature on given 3rd persons is determined. Indeed, items as varied as reflexive anaphors, animate pronouns, or bound pronouns would need to be assumed to bear PERSON/PARTICIPANT features, in order to subject them to PCC effects. Furthermore, recall that dative indirect objects are assumed by many accounts to fall under the category of PERSON/PARTICIPANT bearing 3rd persons, in order for them to act as interveners between *v* and PCC-sensitive direct objects. Standard accounts of the PCC are then left to postulate heterogeneous factors behind the presence of a PERSON/PARTICIPANT feature on certain 3rd person items that seemingly only share the fact that they are PCC-sensitive. Most accounts de facto

assume the presence of a PERSON/PARTICIPANT feature on one or some of these items with no to little independent motivation.

Some accounts have attempted to motivate PCC-sensitivity on semantic or conceptual grounds, and find a common denominator to all items obeying the PCC. For instance, PCC-sensitive items typically correspond to semantically animate referents: this is the case of datives, which often refer to recipients/beneficiaries, and reflexives and bound pronouns, which often refer to agents. However, the correlation between semantic animacy and PCC-sensitivity only goes in one direction: all (or most) of PCC-sensitive pronouns refer to semantically animate entities, but many animate pronouns are still immune to the PCC, i.e. it is not the case that semantically animate items systematically triggers PCC-effects. This can be illustrated with French *le*, for instance, which can either refer to an animate or inanimate referent, but also of items that are specifically animate such as class 1/2 nominals in Swahili (57) or the A (animate plural) class in Kiowa (58).

(57) *Swahili*

U- li- wa- onyesha *watoto* **Maya**.
SM2SG- PST- OM2- show 2children 1Maya

‘You showed Maya to the children.’

IO 3 > DO 3 (CL.1/2)

(58) *Kiowa*

(Harrington 1928: 249 in Adger and Harbour 2007: 25)

Nén- hól.
1S:3S:3A- killed.

‘I killed them for him.’

IO 3 > DO 3.ANIM

To capture the unidirectionality of this overlap, proposals such as Ormazabal and Romero (2007) or Adger and Harbour (2007) have argued that the presence of a [PERSON] feature entails the property of being semantically animate, but does not exhaust it. This means that other features, such as for instance Adger and Harbour’s [EMPATHY], a feature present in the morphosyntactic make-up of some Kiowa nouns and akin to a [SENTIENT] or [ANIMATE] feature, may also entail the property of being semantically animate. This has the following consequences. Only items specified with [PERSON], which happen to be animates, are subject to the PCC, but not all animate items are, since for instance items bearing an [EMPATHY] feature are animate too but [EMPATHY] does not trigger the PCC, capturing the generalization observed so far. The proposed features and their implications are summarized in (59).

(59)	[PERSON]	1 st /2 nd	semantically animate	PCC-sensitive
	[PERSON]	3 rd	semantically animate	PCC-sensitive
	[EMPATHY]	3 rd	semantically animate	immune to PCC
	Ø	3 rd	semantically inanimate	immune to PCC

Such an account predicts that all PCC-subject items should be animate, since PERSON triggers the PCC and entails semantic animacy. This prediction is however falsified by the fact that PCC-sensitive reflexives can be anteceded by inanimate/non-sentient DPs, such as a canoe in Swahili (60) and a computer in French (61), suggesting they are not inherently specified for an [ANIMATE] feature or a [PERSON] feature entailing animacy.

(60) *Swahili*

M-tumbwi u-na-**ji**-end-ea maji-ni
 3-canoe SM3-PRS-RFM-go-APPL water-17

‘The canoe is going/drifts by itself, out of control, in the water.’ (Amidu 2004: 318)

(61) *French*

L’ ordinateur s’ est reprogrammé cette nuit.
 the computer REFL be.PRS.3SG reprogramme.PTCP this night

‘The computer reprogrammed itself last night.’⁸

In order to justify the presence of an [ANIMATE] or [PERSON] feature, one would have to speculate that in such examples, the canoe and the computer are personified or humanized in some way, which has not been independently proven. Overall, the lack of a tight correlation between the presence of a [PERSON] features on some 3rd persons and morphological or semantic properties on the said items weakens proposals looking to semantically motivate the selective presence of such a feature.

A second concern regarding these proposals is the theoretical and empirical desirability of two 3rd persons, an underspecified one and a [PERSON]/[–PARTICIPANT] specified one. Moving past the purely theoretical and minor concern of a complexification of the feature system, such a featural typology would predict a four-way partition of the grammatical category of person, which should be reflected in pronominal and agreement paradigms. Simply put, we should expect person paradigms to reflect featural distinctions, in this case two 3rd person categories. At first sight this is what PCC data seems to suggest, i.e. there are PCC-sensitive 3rd persons and non PCC-sensitive 3rd persons. Furthermore, languages can be observed to distinguish between several 3rd person forms: 3rd

⁸Thanks to Guido Mensching (p.c.) for suggesting this example.

person pronouns may be marked for other distinctions, such as number, gender, human-ness/animacy or the proximate/obviative distinction.⁹ However, the question at hand is whether these distinctions may be traced back to different grammatical person φ -features, or whether they are to be attributed to other features (e.g. $[\pm\text{ANIMATE}]$, $[\pm\text{PROXIMATE}]$), which are crucially orthogonal to the category person. Some insights about this can be offered by considering the function of the grammatical category of person and person features. If one assumes that it has the function of specifying the main *referent* of a pronoun or noun, e.g. distinguishing between the speaker (e.g. $[+\text{PARTICIPANT}, +\text{SPEAKER}]$), the hearer (e.g. $[+\text{PARTICIPANT}, -\text{SPEAKER}]$) and a non-participant, then the existence of two featurally distinguished classes of non-participants, an underspecified person category and a $[\text{PERSON}]/[-\text{PARTICIPANT}]$ specified one, should result in a corresponding split in pronominal paradigms regarding the type of referents that it may have. The typological literature suggests that this is not the case. As summarized by [Sonnaert \(2018: 47\)](#), who studies pronominal paradigms in a sample of 286 languages, "no language has more pronouns than the ones that have *i*, *u*, *o* and *iu* as their focal referents". Indeed, pronominal paradigms are consistently partitioned in no more than four categories, namely 1st person (*i*), 2nd person (*u*), 3rd person (*o*) and what is known as 1st person inclusive (*iu*) (see also [Ackema and Neeleman 2018](#)). No language distinguishes more person categories as to their focal referent. I therefore tentatively assume that, the function of person features being to distinguish focal reference, any other splits or properties denoted by pronouns are the results of other feature specifications, and that this does not support the hypothesis of two 3rd persons distinguished by different person features.

3rd person items thus pose a problem to current formulations of the PLC, which cannot readily account for non 1st/2nd person items. An adequate formulation of the PLC should therefore include these items, while avoiding the above-mentioned caveats. These cases provide important insights into the inner workings and motivations of person licensing, and in particular, into what should count as the relevant feature to require licensing. The central claim of this thesis, to be developed in chapter 4, will show that the syntactic and semantic characteristics of these 3rd person items which require licensing are in fact relevant to shaping a theory of person licensing.

⁹Mention is sometimes made of a 4th person in the literature on Algonquian or Inuit languages when referring to an obviative 3rd person as opposed to a proximate one. The term is also used for special 3rd person inflectional forms which indicate coreference across clauses, i.e. anaphoric 3rd person (see chapter 6 for discussion of 4th person in Inuit). This presumed 4th person category is however dismissed by the typological literature on person and pronouns, which notes that it does not qualify "as a bonafide additional discourse category" ([Siewierska 2004: 7](#); see also [Cysouw 2003: 148, fn.44](#); [Ackema and Neeleman 2018: 297, fn.44](#)).

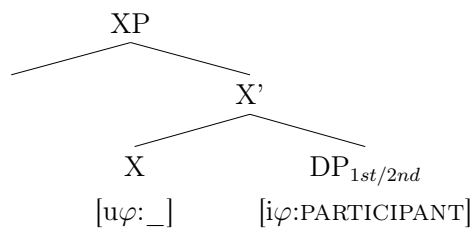
3.4 Theoretical challenges for the PLC

Apart from the above-mentioned empirical problems raised by the existence of PCC effects with 3rd person items, the implementation of the PLC in terms of [PARTICIPANT] or [PERSON] φ -features as defined in 3.1.1 raises several theoretical issues.

3.4.1 Taking the licensing burden off agreeing probes

First of all, current implementations of the PLC display some inconsistencies with its formulation. The PLC, as stated above, requires that PARTICIPANT features on a DP value an unvalued probe located on a functional head X. Assuming participanthood to be one of the possible values of φ next to gender and number, it can thus roughly be schematized as follows:

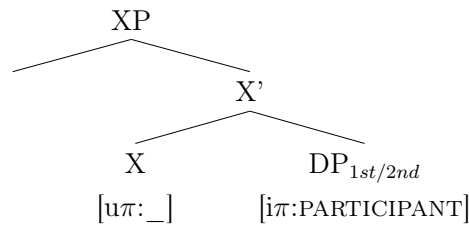
(62)



Looking at the formalism in (62), the only requirement that is formally encoded is that of the φ -probe on the functional head X, which requires checking and valuation by an interpretable valued φ -set on a goal. This requirement is in principle completely independent of the features of the goal, and in particular its person specification. The licensing requirement of 1st/2nd person in itself is then taken as an axiom, and lacks any formal counterpart. Indeed, if 1st/2nd person items are conditioned by the need to Agree, then we should expect this to be featurally driven, i.e. by the presence of uninterpretable or unvalued person features. In most minimalist theories, Agree is triggered by the presence of uninterpretable and unvalued features on an item, namely the probe (Chomsky 2000, 2001). However, in many accounts, 1st and 2nd person pronouns are taken to bear interpretable valued φ . The burden is instead put on the functional head's unvalued uninterpretable person features. This is first of all rather paradoxical, but also makes a number of incorrect predictions.

Since only 1st and 2nd person items are subject to the constraint, the probe should indeed be relativized for those features that are only borne by 1st/2nd person pronouns. In other words, this probe should only look for PARTICIPANT or PERSON features, ignoring all others. One way to encode this is by using a relativized person probe, narrowing it down to PERSON (π) features, in the sense construed above, as follows:

(63)



This is problematic for several reasons. First of all, this would imply that when the object is 3rd person (i.e. devoid of any π -features), this probe on X is absent. This is needed in order to explain the absence of restrictions with 3rd persons. Otherwise, a 3rd person, being underspecified for person, would not be able to satisfy the probe, leading to a crash in the derivation.

Another problem arises with intervening indirect objects. If the probe is in fact relativized for PERSON, and if indirect objects are interveners, then all indirect objects must themselves be endowed with PERSON features. As we have already seen, this is assumed by Anagnostopoulou (2003, 2005), who proposes that all datives bear PERSON features (positively specified for PARTICIPANT if they are 1st or 2nd person, negatively specified in they are 3rd person), giving rise to the following featural array (the counterpart of (42) above in a privative system):

- (64)
- 1st person [π :PARTICIPANT, SPEAKER]
 - 2nd person [π :PARTICIPANT]
 - 3rd person (dative) [π]
 - 3rd person (accusative) [\emptyset]

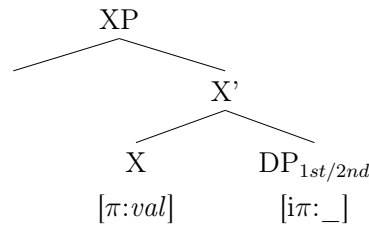
If the licensing requirement indeed lies with the probe itself, then an [$\text{i}\pi$] on the IO should be enough to satisfy it. This is of course not what is observed, since it is the presence of an IO that precisely leads to ungrammaticality in PCC contexts. One could however argue that this is a more general problem falling under the dative paradox (see section 4.3.4). Another problematic issue with this is of course the rather ad hoc specification of 3rd dative IOs as bearers of PERSON features, discussed previously.

Formalizing the PLC can thus not be done by laying the burden on probes, since relativizing probes in this way yields undesirable theoretical consequences (absence of the probe with 3rd person direct objects, heterogeneous person specifications for 3rd person), but also incorrect empirical predictions (satisfaction of π -probes by IOs). So an improved PLC should formally implement the fact that the licensing requirement is the burden of 1st/2nd person DPs, and not of agreeing heads.

3.4.2 φ -deficient 1st/2nd persons?

Such a proposal is made by Kaur (2016) and Stegovec (2020), who hypothesize that the formal motivation of the person licensing requirement lies in the unvaluedness of 1st and 2nd person pronoun's PERSON features. Under this view, 1st and 2nd person weak pronouns have interpretable, but unvalued PERSON features. This idea draws on Kratzer (2009), who proposes that very much in the same way as reflexives are assumed to be φ -deficient, so would be 1st and 2nd pronouns, all falling within the class of minimal pronouns. This hypothesis thus at first sight offers support to theories of binding as φ -agreement, as it would equate the requirement of 1st/2nd person with that of reflexives in such accounts. In order to be licensed, these deficient pronouns must agree with a functional head that bears valued φ -features. This is illustrated below:

(65)



A similar proposal is made by Pancheva and Zubizarreta (2017), who postulate an uninterpretable person feature [uPERSON] on 1st/2nd person pronouns, which needs to be checked by an interpretable counterpart on a functional head. I adopt from these accounts the hypothesis that the licensing requirement must be driven by unvalued features on DPs that are subject to PCC effects. However, I argue that several problems arise if one assumes this feature is a PERSON or PARTICIPANT feature.

One important challenge for such analyses is the assumption that there are valued and/or interpretable PERSON φ -features on functional heads like *v*. Under Stegovec's account, the unvalued π -feature on 1st/2nd DPs gets valued by agreement with *v*, which is assumed to have a valued π -feature, building on Kratzer (2009). This is a non-trivial assumption to make, especially if one considers that in many languages, *v* is also a φ -probe, typically the locus of object agreement. The implication is that *v* must be born with already valued φ -features, and in particular π -features, while simultaneously bearing unvalued φ in order to probe for other φ -features. The compromise proposed by Stegovec is that *v* bears inherently valued π -features, but must still be valued for number and gender through agreement. Similarly, in the account of Pancheva and Zubizarreta (2017), π -features on Appl heads are doubled, one of them being interpretable and valued (to value deficient DPs) and the other uninterpretable and valued (to act as a φ -probe). Doubling of similar features on the same head brings a certain amount of redundancy to

syntax and for this reason should not be privileged. Proving or disproving the presence of inherent π -features on v proves challenging. One possible argument against the presence of valued π -features on a licensing head like v is that such heads do not necessarily agree for person. One such example is French, in which the licensing head is v is also the locus of past participle agreement, which only ever agrees in number and gender, including when the object is 1st/2nd person.

- (66) Paul **nous** a dénoncé-**e-s**.
 Paul 1(F)PL AUX.3SG denounce.PTCP-F-PL
 ‘Paul denounced us (female speakers).’

However, this is indirect evidence at best, since the morphological absence of a feature does not necessarily imply their absence in syntax. Conversely, an argument in apparent support of inherently specified v ’s would be the existence of unagreement cases, whereby v would show 1st/2nd person agreement in the presence of a 3rd person goal (Höhn 2016). This is illustrated for object agreement in Georgian, where the 3rd person object *utsxoelbs* ‘the students’ apparently triggers 1st plural agreement on the verb.¹⁰

- (67) *Georgian*
 (Tkven čven) **utsxoel-eb-s** ra-s mo-**gv**-ts-em-t.
 you.PL us foreigner-PL-DAT what-DAT PREV-1PL-give-them-PL
 ‘What will you(PL) give us foreigners?’ (Höhn 2017: 245)

However, most accounts of unagreement (e.g. Höhn 2016, 2017) and other related mismatches phenomena such as imposters (Collins & Postal 2012) attribute them to other sources than the presence of inherent 1st/2nd person on functional heads, namely to the internal structure of the agreeing DPs. These cases therefore do not constitute definitive evidence in support of Stegovec’s proposal

So while the licensing of 1st/2nd person should certainly be driven by a featural deficiency of some sort, the question of their valuation for π -features, a subset of φ -features, by a functional head that is also a φ -probe raises some concerns.

3.4.3 Default vs ungrammaticality

A further challenge for current theories of person licensing concerns the broader equation between φ -agreement and person licensing. Indeed, holding PARTICIPANT or PERSON features responsible for person licensing amounts to equating φ -agreement with person

¹⁰While unagreement in the subject domain is widely attested, examples of object agreement involving real object agreement rather than clitic doubling are very scarce in the literature, and in fact, the Georgian example cited here is the only one that I was able to find.

licensing. This pervasive view in the literature is entrenched by Preminger's (2019b) recent formulation of the PLC, who argues that only 1st/2nd person that are *canonical agreement targets*, i.e. accessible φ -goals, are subject to a licensing condition (see 3.2.2).

A direct prediction of this view concerns the outcomes of PCC derivations. It is widely accepted since Preminger (2014) that failure of a φ -probe to be valued usually leads to default agreement, and not to a breakdown of the derivation. This can for instance be illustrated by the following cases. (68) illustrates a case where the φ -probe on T cannot find an accessible goal, due to the fact that its subject is expletive and its closest complement is in the dative case, hence not accessible for agreement. Failure of the verb to Agree results in default 3rd person singular agreement.

(68) *Icelandic*

Pað finnst/*finnast einhverjum stúdent tölvurnar
EXPL find.3SG/*find.3PL some student.SG.DAT computer.the.PL.NOM
ljótar.
ugly

Some student finds the computers ugly. (Holmberg & Hróarsdóttir 2003:1006)

Another illustration of default agreement is offered by the Anaphor-Agreement Effect, where an agreeing probe on v fails to be valued by its object when it is a φ -deficient anaphor, and is argued to assume a default form. This is the case in Italian for instance, where in dative-nominative constructions the verb cannot show φ -covarying agreement with an object anaphor and can be default, at least for some speakers, according to Woolford (1999: fn.5) and Tucker (2011).

(69) *Italian*

A loro interessa/*interessano solo se stessi
to 3PL.DAT interest.3SG/*interest.3PL only themselves.NOM

'They only interest themselves' (Tucker 2011: 5)

So failure of a φ -probe to find an accessible goal can be shown to result in default agreement. Assuming that person licensing is encoded as the requirement of a probe on a functional head to be valued by a PERSON feature would predict that PCC effects should yield default agreement, contrary to fact. Previous sections have put forth ample evidence showing that person effects, i.e. failure of person to be licensed, result in ungrammaticality, that is in a crash of the derivation. This is illustrated again by the following Basque example, which show that a PCC effect, illustrated in (70a), cannot be repaired by resorting to default 3rd person agreement on the verb, while still expressing the intended

meaning, as shown in (70b).

(70) *PCC* \rightarrow *crash*

- a. *Zuk harakin-ari **ni** saldu n(a)i-o-zu.
 you.ERG butcher-DAT me.ABS sell **1SG.ABS.AUX-3SG.DAT-2SG.ERG**
 Int: ‘You have sold me to the butcher.’ *IO 3SG > DO 1SG
- b. *Zuk harakin-ari **ni** saldu di-o-zu.
 you.ERG butcher-DAT me.ABS sell **3SG.ABS.AUX-3SG.DAT-2SG.ERG**
 Int: ‘You have sold me to the butcher.’
 Means: ‘You have sold him to the butcher’.

That default agreement is not a possible repair for PCC effects challenges the claim that the PLC should be reduced to obligatory φ -agreement of 1st/2nd person pronouns. Furthermore, this distinguishes it from two other types of restrictions. As illustrated with (69), default agreement is a possible repair for the AAE, but not for the PCC, suggesting that they are powered by different mechanisms. While the AAE is rooted in the φ -deficiency of anaphors and their inability to trigger φ -covarying agreement, as argued by [Tucker \(2011\)](#) and [Murugesan \(2019\)](#), the same can thus not be said of 1st/2nd pronouns. Furthermore, the unavailability of default agreement in PCC effects also distinguishes it from other person effects, such as those argued to result from SCOPA by [Baker \(2008\)](#). [Baker \(2008\)](#) makes the observation that person φ -agreement is restricted in a number of configurations, such as long-distance agreement (LDA) or constructions with oblique subjects where the probe looks to agree with a lower object. In contrast, number and/or gender agreement know no such restrictions. This is illustrated below with an LDA example from Basque. In substandard varieties of Basque, the main auxiliary can optionally agree with the object of the embedded nominalized verb, as can be observed in (71a) where the auxiliary can optionally agree in number with embedded absolutive plural object *liburuak* ‘books’. In contrast, agreement with the 2nd person singular absolutive object *zu* ‘you’ in (71b) is ungrammatical. The auxiliary can only show default 3rd person singular, as shown by the grammatical counterpart of (71b) in (71c).

(71) *Person restriction on long distance agreement* \rightarrow *default*

- a. [**Liburu-ak** eros-te-a] erabaki d-(it)u.
 book-ABS.PL buy-NMLZ-ABS.SG decide AUX.3SG.ERG-**3(PL).ABS**
 ‘He decided to buy books.’
- b. *[**Zu** gonbida-tze-a] baztertu zait-uz-te.
 you.ABS.SG invite-NMLZ-ABS.SG refuse **2SG.ABS-AUX-3PL**
 ‘They refused to invite you.’ (Etxepare 2006 in [Baker 2008](#): 105)
- c. [**Zu** gonbida-tze-a] baztertu d-u-te.
 you.ABS.SG invite-NMLZ-ABS.SG refuse **3SG.ABS-AUX-3PL**
 ‘They refused to invite you.’ (R. Etxepare p.c.)

Unlike for the PCC examples in the same language, default agreement is thus a possible outcome for this type of restrictions. On the one hand, the facts reported by Baker seem to strengthen the by now familiar generalization that 1st and 2nd person pattern differently than 3rd person, and in a way that is more restricted than 3rd person items. On the other hand, if the conditions for person φ -agreement are not gathered, this seems to result in either partial agreement (i.e. agreement in only number and gender) or in default agreement, in contrast with PCC effects. This suggests that the facts described by Baker (2008) and person licensing effects like the PCC may not all be put under the same umbrella. More broadly, this indicates once more that the equation of person licensing with φ -agreement makes incorrect predictions.

This section has thus shown that current formulations of the PLC face many challenges. First, I showed that while the PLC is stated as an axiomatic requirement of 1st/2nd person pronouns, its formal implementation does not reflect this and instead puts the burden on the φ -probe located on v, leading to a theoretical paradox and to incorrect predictions. I then considered the recent proposal of Stegovec (2020), who argues that the PLC is powered by unvalued features on the 1st/2nd person pronouns themselves. However, I demonstrated that the corresponding assumption that v must be inherently valued for [PERSON] features runs into conceptual problems and cannot be substantiated by facts. Finally, I addressed a more general issue concerning the reduction of person licensing to φ -agreement, and showed that the fact that PCC effects cannot be repaired by resorting to default agreement poses a problem for the hypothesis that person licensing equals φ -agreement.

3.5 Conclusion: motivating the PLC

This chapter has introduced the Person-Case Constraint, a cross-linguistic constraint on the occurrence of 1st and 2nd person direct objects in DOCs. The PCC states that 1st and 2nd person direct objects are disallowed in DOCs in the presence of all (strong PCC) or some (weak PCC) indirect objects. No such constraints arise for 3rd person direct objects, suggesting a split between 1st/2nd person on the one hand and 3rd person on the other. Section 3.1.2 has showed that reflexive anaphors, in a number of languages, are subject to the same constraint: direct objects of DOCs cannot be reflexive any more than they can be 1st/2nd person. This observation forms the starting point of this thesis, and raises several interesting questions. First of all, what can this restriction on reflexives tell us about their featural content? In order to answer this question, section 2 introduced current approaches to the PCC, which rely on two essential components. As shown in 2.2.1, the PCC is generally assumed to arise as the result of an intervention effect of the dative indirect object between the direct object and the functional head v. In particular,

IOs prevent 1st/2nd person DOs to satisfy their licensing requirement, formulated as the Person Licensing Condition, repeated below in its original version.

(72) *Person-Licensing Condition (PLC)* (Béjar & Rezac 2003: 53)

An interpretable 1/2 person feature must be licensed by entering into an Agree relation with a functional category.

As it stands, the PLC essentially captures an important descriptive generalization, by stating that the restricted distribution of 1st/2nd person in ditransitives is due to a special licensing need, that is articulated as the need for 1st/2nd person or [PARTICIPANT]/[PERSON] features to agree with a functional head. The PLC thus frames the PCC as a constraint about φ -agreement, conditioned by the presence of given φ -features on certain items, such as 1st/2nd person pronouns and consequently reflexives. However, sections 3.3 and 3.4 showed that accounts of the PCC relying on the PLC face several challenges. First, PCC effects arise with reflexives of all person, including 3rd person reflexives, as well as with a variety of 3rd persons cross-linguistically (animates in Spanish or bound pronouns in French, Spanish or Czech). Amendments have been made to the PLC to allow for such cases by extending it to [−PARTICIPANT]/[PERSON] features, raising several concerns. In particular, I showed that the factors determining the presence of [−PARTICIPANT]/[PERSON] features on select 3rd person items are heterogeneous and mostly ad hoc, weakening the conceptual appeal of this solution. Additionally, I argued that having two 3rd persons distinct in terms of person features is theoretically as well as empirically undesirable, in particular as this hypothesis is not supported by corresponding partitions in pronominal paradigms. Finally, I have shown that this solution is particularly problematic for theories of binding a φ -agreement, as it would predict mismatches or at the very least non-identity between the features of the anaphor and those of its antecedents.

Beyond the empirical problem raised by PCC-sensitive 3rd persons and reflexives, section 3.4 argues that the formulation of the PCC in terms of person φ -features and its corresponding implementation has several shortcomings. I argued that the formal implementation of the PLC as φ -probe on v and an arbitrarily constrained 1st/2nd person pronouns is paradoxical and furthermore leads to incorrect predictions. I then discussed a recent proposal by Stegovec (2020) which shifts the burden of licensing from v to the pronouns themselves by arguing that the PLC is powered by unvalued features on the 1st/2nd person pronouns themselves. Such a proposal would seem to be compatible with an approach of binding as φ -agreement, as it would unify 1st/2nd person and reflexive items under the umbrella of φ -deficiency. However, the corresponding assumption that v must be inherently valued for [PERSON] features runs into conceptual problems and cannot be substantiated by facts. On top of these arguably technical problems, arguments also arise

against the more general view that reduces person licensing to φ -agreement. For instance, the fact that PCC effects cannot be repaired by resorting to default agreement poses a problem for the hypothesis that person licensing equals φ -agreement. In conclusion, not only can current formulations of the PLC not successfully account for the existence of PCC effects with reflexives, but formulating the PLC in terms of φ -features also makes a number of empirically correct predictions on top of showing theory-internal inconsistencies. It can thus be concluded that trying to fit reflexives into the mould of the PLC is not the right way to go, and that the feature uniting 1st/2nd person and reflexives cannot be a [PARTICIPANT] or [PERSON] φ -feature.

As a final argument in favor of a reconceptualization of person licensing, one can also observe that the PLC and in particular the requirement that 1st/2nd person needs to be licensed is formulated as an axiom, in the sense that it seems to lack a formal, principled motivation. It only states that 1st and 2nd person are special, something that has long been recognized, but does not address the question of *why*. Why is it that 1st and 2nd person or PERSON/PARTICIPANT features need to be licensed? As it is, the PLC and accounts of the PCC that rely on it do not provide an answer to that question. However, one could wonder whether there is a more intuitive, conceptual or semantic motivation behind the PLC. In fact, as much is assumed by approaches of person effects in terms of animacy hierarchies, or, by a recent account by [Pancheva and Zubizarreta \(2017\)](#) in terms of perspective or point-of-view centers. An improved account of the PLC should thus (i) grant more empirical coverage, including these instances of 3rd persons that are subject to person effects, (ii) have a principled, conceptual motivation, (iii) have an implementation that reflects these motivations, i.e. be featurally driven and (iv) steer clear of [PARTICIPANT] or [PERSON] φ -features. The following chapter will explore a recent strand of literature on person, indexicality and context that has grown parallel to research on person licensing and which I argue can provide the conceptual ingredients necessary for a reconceptualization of person licensing and its unification with anaphoric binding. This will form the basis to develop the central proposal of this thesis and its formal implementation.

Chapter 4

Rethinking Person Licensing

The previous chapter has shown that previous approaches of person licensing and the PCC in terms of φ -features face many challenges. Furthermore, they do not successfully account for the behavior of reflexives in PCC contexts, as they do not straightforwardly fit into φ -based approaches to binding. Finally, I established the need for a conceptual and technical motivation for the Person Licensing Condition. This chapter will develop the core proposal of the thesis. My main claim is that the need for 1st and 2nd person to be syntactically licensed is rooted in their indexical nature, i.e. in the fact that they are dependent on the utterance context for their interpretation. Based on recent works which argue for the syntactic reality of indexicality and utterance context participants, I argue in 4.1 that 1st/2nd person pronouns need to be syntactically linked to a syntactic representation of context, constituting their licensing requirement. This allows for a straightforward parallel with reflexive anaphors, which likewise need to be syntactically linked to another element in the clause for their interpretation, namely their antecedent. Based on these insights, section 4.2 proposes a formal implementation of this context-linking requirement, based on agreement for [ID]-features. [ID]-features allow to fulfill all the theoretical desiderata for an improved theory of PCC-effects, by capturing restrictions on 1st, 2nd and 3rd person alike in a way that formally reflects the conceptual motivation behind their licensing requirement, i.e. context-linking. Finally, in 4.3, I show how an account based on [ID]-features can solve a number of issues linked to person licensing, ranging from the status of 3rd person to the internal structure of pronouns and the parametrization of dative intervention.

4.1 Person is more than φ

A promising avenue for investigating the underpinnings of the special status of 1st and 2nd person lies in their conceptual, semantic and pragmatic properties. Crucially, 1st and 2nd person pronouns belong to the class of indexicals, i.e. linguistic expressions

that depend on the utterance context for their interpretation (section 4.1.1). In parallel to this, a recent line of syntactic literature has argued for context to be represented in syntax, bringing the notion of contextual dependency into syntax (section 4.1.2). Bridging the gap between these two independent insights, section 4.1.3 will argue that contextual dependency of 1st/2nd person pronouns on the syntactic representation of the utterance context constitutes the core motivation behind the syntactic need for 1st and 2nd person to be licensed.

4.1.1 1st and 2nd person, indexicality and context

1st and 2nd person can be set aside from 3rd persons by their referential properties. Indeed, the reference of 1st and 2nd person pronouns like *I* or *you* is linked to the utterance context. In the following example, the reference of *I* and *you* depends on who is talking and who is being addressed in the precise context of utterance and even turn of speech.

- (1) **Speaker A:** Are **you_B** coming to the party tonight? **I_A** really want **you_B** to be there!

Speaker B: Yes, **I_B**’ll be there, and **I_B**’ll even bring **you_A** a gift.

Like other expressions whose meaning depend on the utterance context, like *here* or *now*, 1st and 2nd person pronouns belong to the class of *indexicals* (Kaplan 1989). Indexicals are linguistic expressions whose referent can only be determined with respect to the utterance context they are being used in. As first theorized by Kaplan (1989), *I* always refers or *points to* the speaker of a given utterance (hence the name *indexical*, from Ancient Greek *deiknumi* ‘to point’). However, the individual who is the speaker is determined for a given utterance context, and changes as the context changes, as illustrated in (1). In contrast, while the referent of a 3rd person pronoun like *he* below also depends on context in a broader sense, it does not depend on the narrow utterance context. This is evidenced by the fact that the reference of *he* and *him* can stay constant across the two turns of conversation in the following example.

- (2) **Speaker A:** Is **he_C** coming to the party tonight? I really want **him_C** to be there too!

Speaker B: Yes, **he_C**’ll be there, and **he_C** said **he_C**’ll bring mini-muffins.

In this example, *he* could refer to a colleague who is present in the room but not listening to the conversation, but also to any male individual that is somehow salient in the discourse, i.e. was present in the previous *linguistic* context (as opposed to *utterance* context). *Deixis*, in the sense of reference to the utterance situation and its participants (the speaker and the addressee) is not essentially involved in the interpretation of 3rd person pronouns

like it is for 1st and 2nd person pronouns. While one can of course point to a salient 3rd person in the utterance situation (a *demonstrative* use for Kaplan 1989), for 1st/2nd person "no associated demonstration is required, and any demonstration supplied is either for emphasis or is irrelevant" (Kaplan 1989: 491), making them *pure indexicals*. Deixis is thus a conceptual notion that groups together 1st and 2nd person and excludes 3rd persons, on the basis of participant-hood in the utterance context. By definition, a speech act only involves two participants, a speaker and an addressee. As summarized by Gruber (2013), while all persons might have (1st, 2nd or 3rd) grammatical person (i.e. the one expressed by agreement for instance), only 1st and 2nd person have *deictic person*.

While this characterization of 1st and 2nd person pronouns originally comes from the fields of semantics and philosophy of language, their deictic components have recently been a topic of interest for syntacticians. Gruber (2013), Ritter and Wiltschko (2009, 2014) or Martin and Hinzen (2014) have recently showed that the deictic component of 1st and 2nd person pronouns is encoded in syntax.

For purposes of illustration, Gruber (2013) cites evidence from Blackfoot (Algonquian) and Dutch (Germanic) showing that pronouns that have an unambiguous deictic content are structurally more complex than those without deictic content. To see this, consider 2nd person pronouns in Dutch. Dutch has both strong and weak 2nd person singular pronouns, *jij* and *je* respectively.

(3) a. *Je: indexical + generic reading*

In Nederland leer je fietsen zelfs voordat je leert lopen.
 in Netherlands learn you_{weak} cycle even before you_{weak} learn walk
 ‘In the Netherlands, you_{ind.} learn to ride a bike before you_{ind.} even learn to walk.’

also: ‘In the Netherlands, one learns to ride a bike before one even learns to walk.’

b. *Jij: indexical reading only*

In Nederland leer jij fietsen zelfs voordat jij leert lopen.
 in Netherlands learn you_{strong} cycle even before you_{strong} learn walk
 ‘In the Netherlands, you_{ind.} learn to ride a bike before you_{ind.} even learn to walk.’

not: ‘In the Netherlands, one learns to ride a bike before one even learns to walk.’

(Gruber 2013: 131)

While the weak *je* can have both an indexical (*you, the hearer*) and a generic reading (*one*), the strong *jij* can only have an indexical reading.¹ The strong version of the pro-

¹This intuition is not as strongly shared by every Dutch speaker, suggesting some variation. Hedde Zeijlstra (p.c.) mentions that both the weak and the strong pronoun can have generic readings, although

noun, assumed to be structurally more complex, is therefore strictly indexical, whereas the weak version, structurally simpler, is underspecified.² This asymmetry in the distribution of weak and strong 2nd person pronouns carries over to fake indexical uses. Only the weak 2nd person indexical *je* can have a bound variable (fake indexical) reading, while the strong pronoun *jij* can only have a referential reading (i.e. a ‘true’ indexical reading where it is strictly interpreted as the addressee).

(4) a. *Je: referential + bound variable reading*

Alleen **jj** gaf toe dat **je** zwanger was.
 only you_{strong} admitted that you_{weak} pregnant was
 ‘Only you_{ind.} admitted that you_{ind.} were pregnant.’
also: ‘Only you_{ind.} admitted that she was pregnant.’

b. *Jij: referential reading only*

Alleen **jj** gaf toe dat **jj** zwanger was.
 only you_{strong} admitted that you_{strong} pregnant was
 ‘Only you_{ind.} admitted that you_{ind.} were pregnant.’ (Hedde Zeijlstra p.c.)

Similarly, Blackfoot has two sets of person proclitics, a long and a short form, respectively *kit-* and *k-* in the case of 2nd person, and *nit-* and *n-* in the case of 1st person. As shown by Gruber (2013) and Bliss and Gruber (2015), their distribution is governed by the presence or absence of temporal deixis. To see this, let us consider the inalienable vs alienable possession contrast.

(5) *Alienable possession*

- a. **kit**-ááattsistaa-m-a
 2_{long}-rabbit-POSS-PROX
 ‘your rabbit’
 b. ***k**-ááattsistaa-m-a
 2_{short}-rabbit-POSS-PROX
 ‘your rabbit’

(6) *Inalienable possession*

- a. ***nit**-siksíst-a
 1_{long}-mother-PROX
 ‘my mother’
 b. **n**-iksíst-a
 1_{short}-mother-PROX
 ‘my mother’

In the context of alienable possession, as in (5) above, only the long form *kit-* can be used, while the short form *k-* is ungrammatical. The reverse holds when possession is inalienable, as with a family member in (6), where only the short form *n-* can be used and the long form *nit-* is ungrammatical. Bliss and Gruber (2015) argue that the difference between alienable and inalienable possessors ultimately boils down to a temporal deictic component: while inalienable possession is permanently attributed to the possessor, i.e.

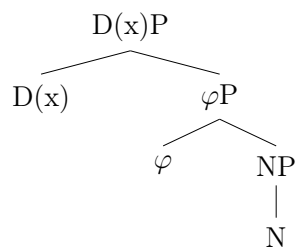
the use of the weak pronoun is indeed preferred.

²A similar asymmetry is reported in Spanish by Alonso-Ovalle (2000, 2002) between 2nd person silent pronouns (*pro*) and their overt, necessarily stronger counterparts (*tu*), in that only the former are able to have an impersonal reading.

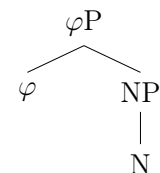
is not temporally restricted, alienable possession is restricted to a given time of possession and a given stage of an individual, i.e. a given utterance context in terms of time and participants. In short, alienable possession involves (temporal) deixis, while inalienable possession does not. As the examples above suggest, the presence of deixis correlates with the use of long person proclitics, while its absence correlates with short forms.

Assuming with Cardinaletti and Starke (1994, 1999) and Déchaine and Wiltschko (2002) that pronouns can appear with or without a D-layer, Gruber (2013) argues that the presence of a D-layer correlates with the expression of deixis, thereby linking deixis with morphological and structural complexity. For Gruber (2013), as well as Ritter and Wiltschko (2009, 2014), the syntactic locus of indexicality, or reference to the utterance situation, lies in the functional head D. The grammatical content of D is a deictic component that can only be interpreted with reference to the extra-linguistic context. 1st and 2nd person, being inherently indexicals, are thus privileged candidates to host such a deictic head, while 3rd person pronouns are built without this deictic component. This is precisely implemented by Martin and Hinzen (2014), who encode this information in a Deixis (Dx) head, which is present on 1st and 2nd person pronouns but absent from 3rd persons pronouns and nouns. This Dx head is also present on demonstratives for instance, and forms the grammatical or syntactic counterpart of the referential properties of indexicals. Their insight is sketched below in a simplified fashion. The reader is referred to Gruber (2013) and Martin and Hinzen (2014) for more precise and developed representations, both of which actually involve multi-layered projections for D/Dx.

(7) a. 1st/2nd person pronoun



b. 3rd person pronoun



The function of D/Dx is to syntactically reflect the indexical component of e.g. 1st and 2nd person pronoun, and to relate a pronoun to the utterance situation. D/Dx can thus be said to have an *anchoring* function (Ritter & Wiltschko 2014), which anchors or locates an individual in time and space, and identifies it (or not) with one of the utterance participants. In 4.2, I will propose an analysis that diverges from the ones I just outlined in that it encodes the deictic component as a feature instead of a syntactic projection. However, it retains the crucial insight advocated for by these authors, namely that indexicality is encoded syntactically.

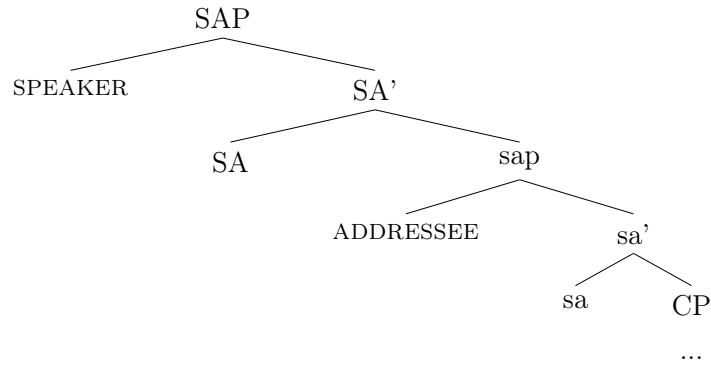
So 1st and 2nd person pronouns differ on a conceptual level from 3rd person pronouns in the way they get their reference, i.e. by deictically referring to the utterance context and

their participants. While this difference has conceptual grounds, research has shown that modes of referentiality and in particular indexicality have a syntactic reality. Indexicality is morphosyntactically realized in dedicated functional heads such as D or Dx, or as I will later show, dedicated features whose function is to anchor participants in the utterance context. The first step to explaining the syntactic licensing requirement of 1st and 2nd pronouns could thus be rooted in their inherent dependency on the utterance context, which as I have shown here can reasonably be argued to be syntactically represented on pronouns themselves.

4.1.2 The syntactic representation of context

In parallel to proposals that put indexicality and reference to the utterance context in the internal syntax of 1st and 2nd person pronouns, another line of literature has argued in favor of encoding the utterance context, and in particular speech act participants, in another place in the syntactic spine, i.e. at the edge of the clause as part of the CP projection.

In the early 2000s, several proposals emerged arguing for a syntactic representation of the utterance situation and the speech act in the clausal spine and in particular in the left periphery. The idea that the speech act itself or the illocutionary force is encoded in the clausal periphery goes back to Ross (1970), who proposed that sentences are headed by a representation of a higher *performative predicate*. For instance, a declarative sentence like *I have washed the dishes* would be headed by a silent predicate of the type of the type *I tell you that (I have washed the dishes)*, which contains a representation of the speaker, the addressee and the type of speech act (e.g. *tell*). While Ross's original hypothesis was abandoned on the grounds that it was too strong, recent proposals have revived and motivated the claim that left peripheries (or right peripheries in head-final languages) do contain information relevant to the interface between conversational pragmatics and syntax that is encoded through the functional structure of the clausal periphery, in the spirit of Rizzi (1997) and Cinque (1999). Speas and Tenny's (2003) seminal article argues that the left periphery and the Force projection include a Speech Act Phrase (SAP), which encodes the relation between the speaker, the hearer and the utterance content, schematically represented below.



A strong piece of empirical evidence for the syntactic encoding of speech act participants in the left periphery is the phenomenon of allocutive or addressee agreement. Allocutive agreement syntactically encodes the presence of the addressee of the utterance on an agreement morpheme, including in contexts where there is no 2nd person argument (Antonov 2015; Miyagawa 2010, 2017; Oyharçabal 1993). In the following example from Tamil (Dravidian), the finite verb bears a final agreement suffix *-ηgæ*, on top of the regular subject agreement marker *-een*.

- (9) Naan d3aangiri vaang -in -een -ηgæ.
 I Jangri buy -PST -1SG.SBJ -ALLOC
 ‘I bought Jangri.’ (to a formal addressee) (McFadden 2020: 1)

In this example, neither the subject nor the object is 2nd person. The allocutive agreement morpheme thus refers to an extra argumental entity. It also provides information about the addressee: *-ηgæ* is used when the sentence is addressed to an individual (or group of individuals) whom the speaker addresses formally or honorifically. Allocutive agreement is absent in Tamil when the speaker addresses a familiar interlocutor. Such agreement has been reported across language families in Basque (Oyharçabal 1993), Japanese (Miyagawa 2010, 2017), Punjabi (Kaur 2017, 2019a), Mupun (Frajzyngier 1989) or Magahi (Alok & Baker 2018). Since agreement with the discourse addressee is morphosyntactically realized, its source must be syntactic as well, which suggests a syntactic projection of the addressee. Addressee agreement has therefore been analyzed as agreement between an agreeing head (labelled AgrP for illustrative purposes) and the syntactic representation of the hearer present in the SAP.

- (10) [SAP HEARER_[iφ:2SG] [CP [AgrP Agr_[uφ:2SG] [TP...]]]]

Allocutive agreement thus constitutes evidence for syntactic representations of speech act participants, at least in the languages in which it is present and by extension in others as well.

Another piece of evidence comes from shifted indexicals in embedded contexts. Tamil is again a case in point. Consider the following example, in which a clause is embedded

under a matrix speech verb like *say*.

- (11) a. Maya_i [taan_{i/*j} pootti-læ dʒejkkæpoo -r -een -nnũ] so-nn-aa
 Maya self contest-LOC win -PRS -1SG -COMP say-PST-3FSG
 ‘Maya_i said that she_i would win the contest’ (Sundaresan 2012: 209)

In this example, the embedded verb *dʒejkkæpoo* ‘to win’ inflects for 1st person singular, yet the subject is the 3rd person anaphor *taan*, which refers to the matrix subject Maya. As analyzed in detail by Sundaresan (2012), the embedded verb does not agree with its grammatical subject as expected, but rather with a (perspectival) representation of the speaker of the embedded utterance, namely Maya, who is the author of the embedded speech act (see also Delfitto and Fiorin 2014, Alok and Baker 2018; Baker 2019 and Charnavel 2019).

- (12) [CP₁ Maya says... [SAP₂ SPEAKER_[iφ:1SG] [CP₂ [TP Subj_[iφ:3SG] T_[uφ:1SG] ...]]]]

What this shows is that the shifted context must be syntactically represented in order to trigger grammatical agreement, constituting another piece of evidence for the presence of syntactic representations of speech act participants in the left periphery, this time of the embedded clause. Similar cases of indexical shift have been reported in Amharic (Schlenker 2003), Zazaki (Anand & Nevins 2004), Uyghur (Shklovsky & Sudo 2013), Magahi (Alok & Baker 2018), Sakha (Baker 2019; Vinokurova 2011) and others. Finally, SAPs have also been argued to be the locus of other pragmatic markers of direct address, such as discourse particles in Romanian and West Flemish (Haegeman & Hill 2013) or vocatives (Hill 2014). These languages thus offer solid evidence to postulate SAPs in the left peripheries which encode the utterance context in syntax.

4.1.3 A syntactic link between 1st/2nd person pronouns and context

In what precedes, we have seen that there is evidence for the existence of a syntactic representation of the utterance context, both on indexical pronouns and in the left periphery. On the one hand, 1st and 2nd person pronouns have an indexical component, in that one must refer to the utterance context to interpret them. On the other hand, the utterance context is represented in the form of a SAP in the left periphery of the clause. From here there is only one step to postulating a syntactic link between the 1st/2nd person DPs and an SAP, which would act as an anchor to the utterance context for context-dependent pronouns in syntax. Several proposals to that effect have been developed, such as Baker (2008), Sigurðsson (2004, 2014a, 2014b), Bianchi (2006) or Delfitto and Fiorin (2014).

The central insight of these proposals, which I share, is that 1st and 2nd person pronouns need to be linked to a syntactic representation of context by an Agree operation.

They operate on the assumption that sentences are endowed with an SAP in the left periphery, or an equivalent intermediate lower projection (e.g. [Bianchi 2006](#)). Pronouns, and in particular 1st and 2nd person pronouns whose reference is clearly utterance context dependent, are assumed to lack some or all lexical content ([Sigurðsson 2014a, 2014b](#)). Instead, their reference must be fixed by entering in relation with higher functional syntactic categories instantiating the utterance context. In the case of 1st and 2nd person pronouns, they must be anchored by the speech act roles located at the clause edge, i.e. the SAP. This is schematized below for a 1st/2nd person subject. I shall return to the case of 3rd person pronouns in section 4.3.1)

$$(13) \quad [\text{SAP SPEAKER ADDRESSEE ... } [\text{vP } 1^{st}/2^{nd}_{pro} \text{ v ... }]]$$

As pointed out by [Sigurðsson \(2014b\)](#), SAPs and elements composing them are usually silent, and their effects can only be observed clause-internally. Evidence for this link is thus chiefly indirect. One such piece of evidence are the indexical shifts introduced above. What indexical shifts emphasize is that grammatical 1st person, in the form of pronouns and agreement markers, can get its value for the local syntactic context, and not necessarily from the actual non-linguistic context. In the case of indexical shift, the features of an embedded argument get redefined by the preceding syntactic context, that is the embedded speech context.

Drawing on these proposals, I argue that the licensing requirement of (weak) 1st/2nd person pronouns, manifested as the PCC in double object constructions, follows from their need to be syntactically anchored and linked to the utterance context. This provides a principled motivation as to *why* 1st/2nd person have special needs: they, unlike 3rd person, instantiate discourse participants and are thus context-dependent. I capture this syntactic requirement as the Context-Linking Requirement (CLR) (after [Sigurðsson's \(2014b\)](#) notion of C(ontext)-linking), given as a first approximation below.

(14) **Context Linking Requirement (CLR)** (first pass)

Context-dependent elements (including but not limited to 1st and 2nd person pronouns) must be licensed by establishing a syntactic relation with a syntactic representation of the utterance context (e.g. SAP) in order to fix their reference.

PCC effects arise for context-dependent elements when they are prevented from entering into a syntactic relation with a higher functional head, for instance by the presence of a dative intervener. As PCC effects crucially arise in the object domain only, and do not include the subject, 1st and 2nd person direct objects are assumed to target a lower representation of SPEAKER and HEARER, located in the v domain, as proposed by [Bianchi \(2006\)](#). The fact that intervention effects arise for context-linking of 1st/2nd person pronouns is expected if context-linking is understood as a syntactic operation like Agree.

Note that not all 1st/2nd person pronouns are subject to the CLR – in fact, only weak 1st/2nd person pronouns typically are, correlating with their deficient structure. In contrast, pronouns with richer structures do not require such external context-linking. This aspect of the analysis will be developed in 4.3.2.

The CLR is intended as an improvement on the PLC, by enriching it with a motivation, to begin with. But replacing the PLC by the CLR also offers a natural way to include reflexives as PCC-sensitive elements. Indeed, reflexives are also dependent on the syntactic context for their reference. As established in chapter 2, reflexives syntactically depend on their antecedent, with which they are taken to be syntactically related by an Agree relation. In particular, the referential deficiency of reflexive anaphors, implemented by an unvalued feature, drives their need to enter in a syntactic relation, Agree, with a referentially specified element, a nominal antecedent with a valued corresponding feature. Reflexives thus share with 1st and 2nd person items the fact that their reference is determined clause-internally through the establishment of a syntactic relation, albeit by a nominal antecedent in the case of reflexives and by a functional projection of utterance participants for 1st/2nd person. This parallel between reflexive anaphors and 1st/2nd person pronominals as referentially and syntactically dependent elements forms the core conceptual insight on which I will build my proposal, and leads us to amend the CLR to include reflexives. Context here crucially refers to the notion of local syntactic context, not the general utterance context.

(15) **Context Linking Requirement (CLR)** (second pass)

Context-dependent elements must be licensed by establishing a syntactic relation with a syntactic representation of the utterance context (e.g. SAP) **or a nominal antecedent** in order to fix their reference.

This link between person restrictions, reflexives and context-linking was already proposed by Baker (2008), who accounts for the structural and categorial restrictions on person agreement with a revised Person Licensing Condition. The generalization reached by Baker is that person agreement can only arise between a head and its specifier or complement, i.e. in a very local configuration. He accounts for this particular condition by arguing that 1st/2nd person agreement is actually a different type of relation, akin to operator-variable binding: 1st/2nd person items must be bound by the syntactic representation of context. Baker (2008) postulates an SAP in the left periphery, containing a representation of the speaker S and the addressee A. The locality requirements of 1st/2nd person are tied to their need to establish a relation with the SAP, as captured by Baker's PLC.

(16) *The Person Licensing Condition (PLC)* (Baker 2008)

- a. A DP/NP is first person only if it is locally bound by the closest c-commanding S or by another element that is first person.
- b. A DP/NP is second person only if it is locally bound by the closest c-commanding A or by another element that is itself second person.
- c. Otherwise, a DP/NP is third person.

Note that Baker uses the concept of binding to designate the relationship between 1st/2nd person pronouns and the speech act phrase. This prefigures the equation of restrictions on 1st and 2nd person with restrictions on reflexive anaphors that I argue for here. In the next section, I will develop a proposal that implements this equation not only in terms of structural configuration but also in terms of features, arguing that the features at play in person licensing, or context linking, are the same as the features involved in binding.

4.1.4 Conclusions

In conclusion, this section has shown that 1st and 2nd person differ from 3rd person pronouns in that they have a deictic component, i.e. they depend on the utterance context for their interpretation. This indexical component has been shown to be realized in syntax, both as part of the internal syntax of 1st/2nd pronouns themselves and externally in syntactic representations of the utterance context (SAP). The central argument of this section is that the special licensing requirement of 1st/2nd person pronouns is tied to their indexicality: they must establish a link with a syntactic representation of the utterance context, in order to be syntactically licensed and further interpretable at the conceptual-intentional interface. Failure to establish that link results in person effects such as the PCC. This dependence on an element in the syntactic context is shared by reflexive anaphors, which syntactically depend on their antecedent for reference, straightforwardly accounting for the common behavior of 1st/2nd person and reflexives in PCC contexts. The analysis that I will propose in the next section in effect shares many insights with [Bianchi's \(2006\)](#) and [Baker's \(2008\)](#) proposals, who apply the notions of context-linking and binding by speech act participants to the explanation of person effects, but also differs from them in significant ways.

4.2 Formalizing person licensing with [ID]-features

In section 4.1, I have argued that the conceptual grounds for a revised PLC are rooted in the inherent indexicality of 1st and 2nd person pronouns, and the syntacticization of the discourse context. On these grounds, I will now sketch my proposal for the formal implementation of a revised PLC, which I formalize as the Context-Linking Requirement (CLR) (inspired by [Sigurðsson 2014b](#)). Section 4.2.1 will lay out the formal components of

an implementation of the CLR, which is formalized as an Agree relation holding between 1st and 2nd person and given functional heads, using referential [ID]-features as the relevant feature. The implementation of this system will be illustrated in 4.2.2 and 4.2.3 with sample derivations for the licensing of 1st/2nd person and reflexives respectively. Section 4.3 will spell out some of the consequences of this proposal for the structure of pronouns, the status of 3rd person, the relationship between [ID]-features and φ -features, but also for dative intervention and for different versions of the PCC. Finally, section 3.4 will provide an overview of the following chapters.

4.2.1 Context-linking as [ID]-valuation

At the end of chapter 3, it was established that an improved account of the PLC should (i) grant more empirical coverage, including these instances of 3rd persons that are subject to person effects, (ii) have a principled, conceptual motivation, (iii) have an implementation that reflects these motivations, i.e. be featurally driven and (iv) steer clear of [PARTICIPANT] or [PERSON] φ -features.

A principled, conceptual motivation for the special licensing needs of 1st and 2nd person pronouns was provided by their inherent indexicality, which as seen previously is syntactically encoded and takes the form of a link between a deictic component on 1st and 2nd person pronouns and a syntactic representation of context. In order to be licensed, i.e. be context-linked, 1st and 2nd person pronouns need to enter into a relationship with that syntactic representation of context. Articulating the requirement for licensing as the need to be syntactically linked to an element in the local syntactic context straightforwardly includes reflexive anaphors in the class of elements subject to this requirement, thus providing a motivation for PCC effects that is not restricted to 1st/2nd person. In order to meet the remaining theoretical desiderata (i), (iii) and (iv), I propose an implementation of the CLR that is based on an Agree operation between referential [ID]-features, and that ultimately reduces to the basic syntactic requirement that all unvalued features must be valued in the course of the derivation for it to succeed.

First, a necessary ingredient to formalizing the CLR is a linking operation. In the framework used in this thesis, and consistently with previous accounts of person licensing, linking naturally takes the form of the Agree operation. 1st and 2nd person pronouns must thus Agree with a syntactic representation of the utterance context in order to be licensed. As defined in chapter 2, Agree is a relationship between two instances of the same feature, one of which requires valuation.

However, as argued in chapter 3, holding φ -features responsible for person effects faces several challenges, both theoretical and empirical. Furthermore, the dependency of 1st and 2nd person on the utterance context is not purely formal, as it reflects a relationship with the semantic-pragmatic interface. Therefore its implementation should equally reflect its

interpretative and referential component. Finally, one of the central empirical problems for formulating the PLC in terms of φ and PARTICIPANT features was the presence of PCC effects with 3rd person items, as for example with 3rd person reflexives or 3rd person bound pronouns. Any proposal for the licensing of 1st/2nd person should thus apply to these items as well.

An ideal candidate for this are [ID]-features, introduced in 2.3.2.2, which meet all of the above criteria: they can enter Agree relations, they can encode referential dependency and they are not person specific, i.e. they can span over 1st, 2nd and 3rd person. Chapter 2 showed that these properties allow them to encode identity of arguments, i.e. anaphoricity, in a way that is superior to φ -features. I hypothesize here that [ID]-features can also serve another function, namely realizing the dependency between a referentially or contextually dependent indexical and the syntactic locus of the utterance context. This indexical use of [ID]-features thus allows us to enrich the definition of the feature given in 2.3.2.2.

(17) **The [ID]-feature:**

- a. takes indices (integers or letters) as values. These indices encode the relative reference of DPs with regard to one another;
- b. is interpretable at both LF and PF interfaces, i.e. [ID]-features play a role in the interpretation of sentences and may be expressed morpho-phonologically;
- c. is present as an attribute on every nominal;
- d. is valued on referential nominals **and functional heads encoding utterance context participants**;
- e. is unvalued on anaphoric nominals, constituting the syntactic correlate of anaphoricity;
- f. **is unvalued on indexicals (1st/2nd person items), constituting the syntactic correlate of utterance context dependency.**

Instead of postulating a dedicated Speech Act projection, I follow Sigurðsson (2004, 2014a, 2014b) in adopting a featural representation of the speech act and the utterance context. This implies a non-cartographic version of the clausal spine, where only the basic functional and lexical projections are assumed. The utterance context and participants are instead encoded on given functional heads as features.³ As a first estimation, I hypothesize that valued instances of [ID]-features, corresponding to the speech act participants, can be located on C and v heads. The C locus corresponds to left peripheries SAPs, which can for instance license allocutive agreement, shifted indexicals, discourse particles or, as will be explicated later, person effects involving subjects. The v locus instantiates a

³Note that the choice of this model over a cartographic one is made on the basis of theoretical economy only and has no bearing on the content or implementation of my proposal, which I expect to be equally compatible with a more cartographic vision of SAPs as separate projections.

lower, intermediate representation of speech act participants corresponding to the licensing domain of objects, which is of interest here, following e.g. [Bianchi \(2006\)](#) or [Kaur \(2016\)](#). In languages in which *v* is a person licenser, it is endowed with uninterpretable valued [ID]-features mapping to the utterance participants.⁴ Note already that *C* and *v* are often assumed to be phase-heads, the significance of which is discussed further in 8.3.

Context-dependent elements, such as 1st/2nd person pronouns and reflexive anaphors, bear an interpretable but unvalued instance of [ID]. They need to be valued by agreeing with functional heads like *v* or nominal antecedents in order to receive a value in the form of an index, which will allow them to be interpreted accordingly against the participants of the utterance context or the other participants of the clause.

What values can be associated to [ID]-features in their indexical use? In chapter 2, we have seen that the values proposed by [Hicks \(2009\)](#) consist of indices. These indices function as pointers between arguments whose reference is context-dependent and individuals that will be mapped onto them at LF. I assume that discourse participants are stored in the form of indices in a feature-matrix on heads acting as representations of context, such as *C* or *v*. Concretely, *v* is endowed with either several [ID]-features with a value each, as in (18a), or with one feature containing several values, as in (18b).

- (18) a. $v_{\{[ID:i],[ID:j]\}}$
 b. $v_{[ID:i,j]}$

I will consistently adopt the latter notation. Note that the linear order of the values is arbitrary and does not entail any hierarchy between the two values.⁵ The values stored on these SAP-like heads correspond to the discourse participants, namely *SPEAKER* and *ADDRESSEE*. For convenience, I will thus use the notations *SPEAKER* (or *S*) and *ADDRESSEE* (*A*) for the indices corresponding to the speech act participants. However, these indices are in reality to be conceived like any other indices, and further mapped to the speaker and the addressee at LF or in the discourse-pragmatic component. The notations C_{SA} [*uID:SPEAKER,ADDRESSEE*] and v_{SA} [*uID:SPEAKER,ADDRESSEE*] thus replace dedicated and articulated SAPs at the *C* and *v* levels. The working hypothesis is that in any given language where *v*'s act as speech act centers, i.e. as person licensers, all *v*'s are v_{SA} and bear the above-described feature specification.

⁴This lower locus of syntactic context is presumably dependent upon the higher context-encoding head *C*, whose feature values it inherits, as proposed by [Bianchi \(2006\)](#). Alternatively, valued [ID]-features on a lower head can also be tentatively linked to Sigurðsson's event participant features, or theta-features. Schematically, context-dependent pronouns would Agree with a representation of event participants (e.g. on *v*), which would in turn be linked to a representation of utterance participants (e.g. on *C*), thus relating and (mis)matching event and utterance participants.

⁵A further possibility is that these features could in turn be hierarchically organized in a tree, in the same way that person φ -features are hierarchically organized ([Harley & Ritter 2002](#)).

Given this formalization, the CLR can be reduced to the following statement.

(19) **Context Linking Requirement (CLR)** (final version)

Context-dependent elements, such as 1st/2nd person and reflexives, bear an interpretable unvalued [iID: _] feature.

It then follows from general conditions on Agree that any unvalued feature must be valued in order for the derivation to converge. Assuming valued [ID]-features on non-context sensitive items (nominal antecedents) and syntactic representations of the utterance context (such as v_{SA}), context-linking is thus achieved by agreeing with accessible [ID]-goals.

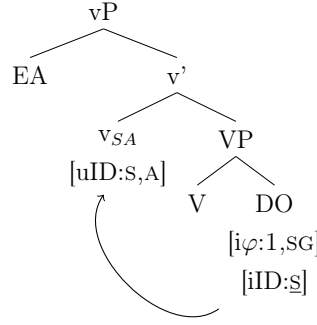
Having established the system in which my proposal is situated, I will now sketch standard derivations for the licensing of 1st/2nd person and reflexive items, and the corresponding PCC effects.

4.2.2 Licensing 1st and 2nd person

My main claim is that the licensing requirement of 1st and 2nd person pronouns stems from their context-dependency, instantiated by an unvalued [ID]-feature. In order to be licensed, this unvalued feature must Agree with a valued counterpart, which is located on an already existing functional head, identified as v for the object domain, as is the case for typical PCC effects. This valuation operation is the syntactic realization of context anchoring.

As outlined in chapter 2, I adopt a version of Agree as downward valuation/upward probing (Wurmbrand 2012) and assume with Pesetsky and Torrego (2007) that valuation and interpretability are divorced from each other. v heads acting as speech act centers bear an uninterpretable, valued [uID:S,A] feature, while context-sensitive 1st/2nd person pronouns bear an interpretable, unvalued [iID: _] feature. I standardly assume that such pronouns also bear a fully specified φ -feature set, e.g. [i φ :PARTICIPANT, SPEAKER, SG], simplified as [i φ :1,SG]. The following tree illustrates licensing of a 1st person pronoun, which agrees upwards with the [ID]-feature present on v , bearing index values standing for the speaker (S) and the addressee (A). This formally achieves context-linking of a context-sensitive pronoun with the syntactic representation of utterance participants located on v .

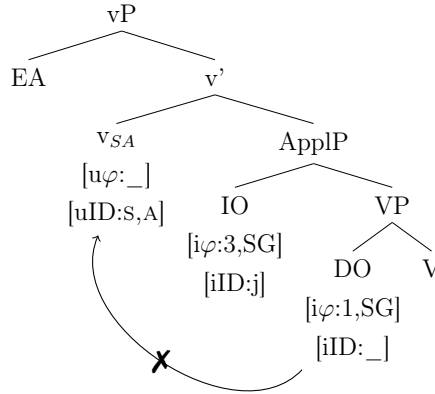
(20)



I assume that the uninterpretable [ID]-feature on v_{SA} gets trivially checked by the interpretable [ID]-feature of the c-commanding external argument.⁶

Consistently with previous accounts of the PCC outlined above, PCC effects arise as the result of intervention by the dative IO between the context-sensitive DO and the licensing head v , as illustrated below.

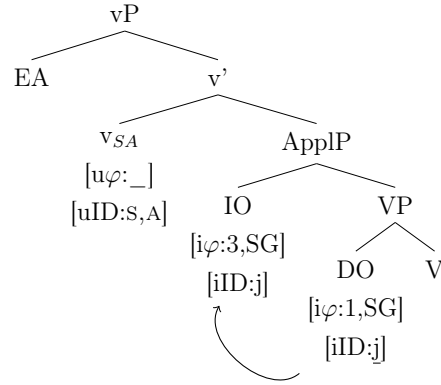
(21)



A key difference with φ -based accounts resides in that dative IOs are no longer assumed to necessarily bear visible $[i\varphi:\text{PARTICIPANT}]$ features despite being sometimes 3rd person. Instead, being DPs, they naturally bear a valued $[iID:val]$ feature. This, however, immediately gives rise to the following question: couldn't the unvalued $[iID:_]$ of the DO potentially agree with the valued $[iID:j]$ of the IO and inherit its index, satisfying its purely formal needs? Consider the same configuration as above, where this time the 1st person DO agrees with the 3rd person IO. As a result however, the IO and the DO would share the same index and thus be interpreted as coreferent, which would yield the wrong interpretation.

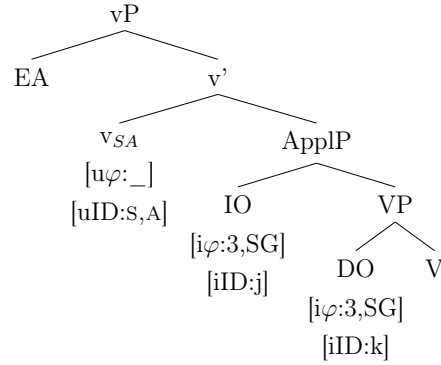
⁶Alternatively, one could assume that uninterpretable [ID]-features on all intermediate speech act centers are checked by a high SAP in the left-periphery which contains full-fledged pronominal representation of speech acts participants with interpretable [ID]-features (see also footnote 4 above).

(22) *Ruled out: same index, different φ*



One option to rule out this scenario is to resort to the semantic contribution of φ -features. In (22), the DO is endowed with 1st person φ -features, which arguably restrict its possible reference to the speaker of the utterance via a system of presupposition (Heim & Kratzer 1998; Sudo 2012), but has an $[ID]$ -value corresponding to a non-participant of the context, i.e. a 3rd person. These conflicting specifications would result in a clash at LF, ruling out the corresponding sentence. This system successfully derives the outcome of a number of object combinations. If the DO is a (non-anaphoric) 3rd person, it will come with a prevalued $[ID]$, thus removing all interactions with the IO or v, thus resulting in grammatical sentences, as schematized in (23).

(23) *3rd person DO*



If the DO is 1st person, it will clash with a 2nd person IO ($[iID:A]$) or a 3rd person IO (e.g. $[iID:j]$), corresponding to the ruled out derivation in (22) above. Similarly, if the DO is 2nd person, it will clash with a 1st person IO ($[iID:S]$) or a 3rd person IO (e.g. $[iID:j]$).

However, this system says nothing about other ungrammatical configurations, involving φ -matching IOs and DOs, such as $*IO\ 1^{st} > DO\ 1^{st}$, $*IO\ 2^{nd} > DO\ 2^{nd}$ and $*IO\ 3^{rd} > DO\ 3^{rd}$ REFL. These combinations, corresponding to reflexive constructions in which both objects would be coreferential, are ungrammatical within the reflexivization strategies (weak pronominal reflexives and anaphoric agreement) and the languages under

study, and are so regardless whether both objects also corefer with the subject, as in (24a) and (24b), or not (24c).

(24) *French*

- a. *Je_i/elle_j **me_i** me_i présente.
 1SG/3SG.NOM 1SG 1SG introduce.PRS.1/3SG
 Int.: ‘I_i/she_j introduce(s) me_i to myself_i.’
- b. *Elle_i **se_i** lui_i présente.
 3SG.NOM REFL 3SG.DAT introduce.PRS.1/3SG
 Int.: ‘She_i introduces herself_i to her_i.’
- c. *Je_i/elle_j **se_k** lui_k présente.
 1SG/3SG.NOM REFL 3SG.DAT introduce.PRS.1/3SG
 Int.: ‘I_k/she_j introduces herself_k to her_k.’

Rather than a ban on φ -mismatches, it seems that there is a more general ban on coreferentiality between IOs and DOs in DOCs in these languages, leading to the impossibility of an [ID]-deficient DO to inherit the value of the c-commanding IO. As I will show in the next section, this falls out of general conditions on the way reflexivity is derived.⁷

4.2.3 Licensing reflexives

The core of the above proposal extends quite naturally to reflexives. Chapters 2 and 3 demonstrated that approaches of reflexive binding in terms of φ -Agree face many challenges. Instead, binding can be thought of as agreement in referential [ID]-features, successfully accounting for the parallels between reflexive anaphors and 1st/2nd person pronouns in DOCs. Reflexives have in common with 1st/2nd person that they are born with an unvalued [iID: _] feature, which signals their need to be syntactically linked to another element in the clause – the antecedent – via Agree, in order to be interpretable.

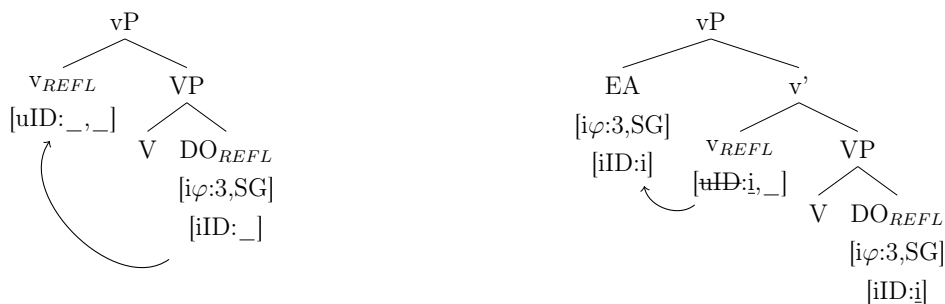
Furthermore, as outlined in 2.2.3, this relation is taken to be mediated by v. This assumption is based on previous accounts such as [Heinat \(2008\)](#); [Kratzer \(2009\)](#); [Reuland \(2011\)](#), but is also strongly empirically supported by certain properties of reflexive constructions in the languages under study, such as French and Swahili, as demonstrated in chapters 5 and 6, namely the presence of special anaphoric agreement on v in Swahili, and the local subject-orientation of reflexives in both types of languages. I therefore assume that the numeration of reflexive sentences in the languages that interest us involves a reflexive voice head, notated v_{REFL} . This mediating role between two obligatorily match-

⁷Principles A or B cannot account for this restriction. Indeed, if one standardly assumes the clause (or even the phase) as the local binding domain, the IO is as local as the subject (and in fact technically more) and should constitute an acceptable antecedent. Furthermore, being featurally specified as an anaphor (by its valueless [ID]), the DO is not expected to trigger any Principle B effect if coreferent with another local DP.

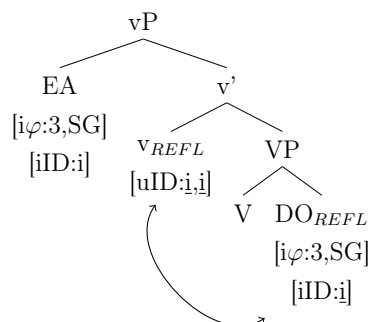
ing [ID]-features is syntactically encoded by an unvalued [uID:_,_] on v_{REFL} , with two missing values (see 5.3.2 for more details). Thus, v_{REFL} cannot directly transmit a value to a deficient anaphor and must also satisfy its own featural requirements. First, it must agree with the c-commanding subject, before transitively valuing the anaphoric object and getting fully valued themselves, via feature sharing.

The picture that emerges for the syntax of reflexive binding is the following. In a first step, the unvalued [iID:_] feature on the anaphor probes up and meets the unvalued [uID:_,_] on v_{REFL} , which cannot value it. As a result of feature sharing, a link is formed between the two instances of the same feature, which will be accessible for subsequent processes. In a second step, the subject is merged into the structure, bearing a valued [iID:i], which constitutes an appropriate goal for v 's [uID], which therefore gets checked and valued by the subject for one of its values. In a third and last step, the [ID]-feature of the anaphor can get transitively valued by v_{REFL} , with which it stands in a previous Agree relation, by means of feature sharing, and in turn shares its value with v 's second unvalued slot. v_{REFL} thus stands in an Agree relation with both the subject and the anaphor: it gets its value from the higher DP (the subject/antecedent), and is in a feature sharing relation with the lower DP (the anaphor). As such, v mediates a relation between necessarily matching [ID]-features.

- (25) *Step 1: establishing a link between the anaphor and v_{REFL}* (26) *Step 2: valuation and checking of v_{REFL} 's feature by the subject*



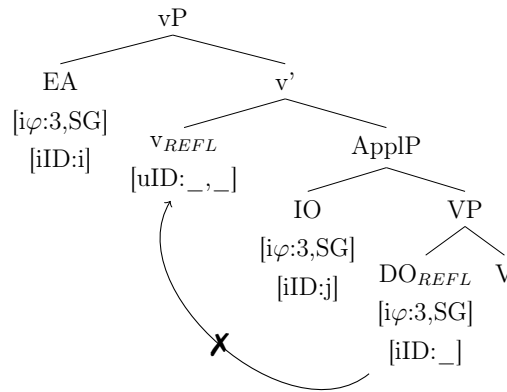
- (27) *Step 3: feature sharing*



The upshot of this syntactic derivation for reflexives is that in order to derive reflexivity, not only must two arguments be coindexed by matching [ID]-features through Agree, but this relation is also obligatorily mediated by v_{REFL} . Anaphors of the Swahili or French type, which are weak, local subject-oriented anaphors, cannot be bound without the mediation of a v_{REFL} , which must in turn satisfy its own syntactic requirement for the derivation to converge. The mediation of v_{REFL} also presumably fills a semantic function, although its reflexes can be observed in syntax and morphosyntax, as will be shown. The role of this voice head is to contribute a semantic reflexivizing function, i.e. reflexive semantics, without which a predicate does not get reflexivized. Therefore, in order to yield reflexive constructions (of the type that were observed to be subject to PCC effects in the languages under study), both syntactic binding (i.e. coindexation via [ID]-feature sharing) and semantic reflexivization are needed, which is contributed by v_{REFL} . This can be paralleled with [Reinhart and Reuland's \(1993\)](#) insight that in order to derive reflexivity, both coindexation and reflexive-marking of the predicate – through a reflexivization function that originates as either a reflexive voice head or a SELF anaphors – are needed (see 2.1.3).

Given the licensing mechanism just described for reflexive anaphors, PCC effects can be derived in a similar manner as with 1st/2nd person above. Intervention of the IO between v_{REFL} and the anaphoric DO prevents valuation of the latter via the former, as illustrated below with the case of a 3rd person reflexive.

(28)

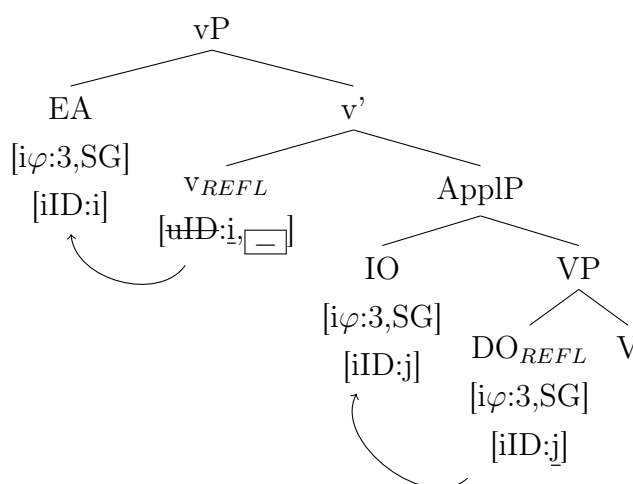


First, due to standard locality principles of Agree, the reflexive voice head can only mediate a relation between the closest c-commanding argument (the external argument) and the closest c-commanded argument, whose indices must match. In a DOC, that c-commanded argument is the IO. Since probing for Agree is assumed to be upward (=valuation is downward), v 's [uID:_,_] cannot Agree with the IO's [ID]-feature, given that the former c-commands the latter, and that a non-anaphoric IO does not have an

unvalued [ID] that would justify its probing up.⁸

Second, since both the syntactic requirements of the reflexive voice head and of the reflexive anaphors, obtained through [ID]-agreement, should be met to derive reflexivity, even if the anaphoric DO were to obtain its [ID]-value from the IO, as depicted below, the featural requirements of v_{REFL} would still not be satisfied. Indeed, assuming that Agree is strictly upwards, if the anaphoric DO gets its feature satisfied by the intervening IO, it cannot establish a link with v_{REFL} . This prevents the latter from being in an Agree relation with another argument and getting a second value, leading to a crash in the derivation. The satisfaction of v_{REFL} 's features thus requires prior probing and matching by c-commanded [ID]-deficient anaphor, a process that gets bled by the presence of an IO intervener.

(29) *Ruled out: IO-DO coreference*



This successfully rules out any configurations, such as the ones mentioned at the end of the previous section in (24a) to (24c), in which an [ID]-deficient anaphor would corefer with an argument that is not the subject. In other words, the presence of a v_{REFL} derives local subject-orientation of the anaphor, a property that is consistently found in the languages exhibiting PCC-effects with reflexives. This mechanism thus allows us to account for the ungrammaticality of $*IO\ 1^{st} > DO\ 1^{st}$, $*IO\ 2^{nd} > DO\ 2^{nd}$ or $*IO\ 3^{rd} > DO\ 3^{rd}$ REFL configurations, which would yield matching indices, but without the satisfaction of v_{REFL} 's features, hence not satisfying the above-described requirements.

The main proposal of this thesis can thus be summed up as follows. $1^{st}/2^{nd}$ person pronouns and reflexive anaphors both need to be syntactically linked to an element in their syntactic context, respectively a featural representation of speech act (v_{SA}) participants

⁸Even if, for the sake of argument, that was possible, this would create an index mismatch situation on v , which would inherit two different indices, since the IO is inherently specified with a valued [ID] different than the subject's.

or a nominal antecedent via a reflexive voice head (v_{REFL}). However, in DOCs, i.e. PCC contexts, these context-linking relationships are jeopardized by the presence of an intervening IO, which disrupts the necessary Agree relation between v and a context-sensitive DO, leading to ungrammaticality. [ID]-features allow to formalize these link by avoiding the pitfalls faced by a φ -approach and by providing a unified theory of binding and person licensing.

4.3 Solving problems with [ID]-features

The previous section laid out the core of the proposal, namely that reflexives and 1st/2nd person pronouns share the property of being dependent on another element in their syntactic context, to which they are linked by means of agreeing [ID]-features. As I will now show, a proposal based on [ID]-features provides the means to answer many questions intertwined with restrictions on 1st/2nd person and reflexives items in DOCs. In 4.3.1, I show that a pronominal typology based on a characterization in terms of both φ -features and [ID]-features allows for a better understanding of the status of 3rd person. In 4.3.2, I tackle issues pertaining to the internal structure of pronouns and in particular the weak *vs* strong pronoun dichotomy and its consequences for indexicality and typologies of the PCC. In 4.3.3, I address the issue of the apparent correlation between object φ -agreement and PCC effects and provide elements to deconstruct this link. Working with [ID]-features and articulated pronominal structures also allows me to offer an explanation of dative intervention and the so-called dative paradox in section 4.3.4. The system introduced here will be demonstrated to account for cross-linguistic variation in the intervention of datives for Agree operations. Finally, in 4.3.5 I propose that the types of parametrization described here can also provide an explanation for variation between weak and strong PCC effects.

4.3.1 The status of 3rd person

One of the main features of the proposal laid out above is that it dissociates φ and [ID]-features, granting them different functions. Dissociating φ -features and [ID]-features allows for new insights on the featural make-up of pronouns, as well as a new typology of pronouns organized along two distinct parameters, i.e. [ID]-features on the one hand and φ -features on the other hand. To see this, let us consider the status of 3rd person, an issue that I have left pending until this stage. To determine the featural make-up of 3rd persons, one must take into considerations several observations.

The first factor is one that comes from considerations on anaphoric binding. Under the assumption that anaphors (of the type under investigation here) get their [ID]-feature valued against their antecedent, it follows that all potential antecedents bear valued [ID]-

features. Since the set of potential antecedents includes 3rd person DPs and pronouns, a working theory should postulate [ID]-features on all DPs.

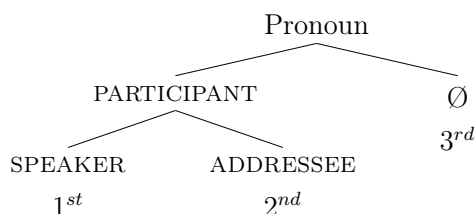
- (30) Conjecture 1: all DPs, including 3rd person full DPs and pronouns, bear [ID]-features.

However, this does not preclude antecedents from being themselves context-dependent. To begin with, 1st and 2nd person pronouns are of course possible antecedents for reflexives. So the above conclusion does not rule out the possibility that certain 3rd persons are context-dependent and born with unvalued [ID]-features. The fact that not all 3rd person are equal is of course supported by the fact that only some 3rd person pronouns (such as reflexives, but also 3rd person bound pronouns, or certain animate 3rd persons) are subject to PCC effects. More broadly, the literature suggests that person effects and licensing requirements may affect definite 3rd person DPs (e.g. DOM, [Kalin 2018](#); [Kaur 2016](#)), or proximate (salient, topic-like) 3rd person DPs (direct/inverse systems, [Alexiadou and Anagnostopoulou 2006](#)).

- (31) Conjecture 2: Not all 3rd persons are necessarily born with *valued* [ID]-features: some 3rd persons are context-sensitive and hence born with *unvalued* [ID]-features.

PCC-sensitivity is thus one criterion that allows us to draw two classes of 3rd persons, not in terms of φ -features (as challenged in section 3.3.3) but rather of [ID]-features and context-sensitivity: the ones that need to be context-linked and the ones that do not. Manipulating [ID] and φ -features allows us to account for these two types of 3rd person without resorting to a complex φ -feature system. I assume a simple, privative system for person features, à la [Harley and Ritter \(2002\)](#).

(32)



To that I add that all pronouns and DPs merged in a clause bear an [ID]-feature, which can either be born valued or unvalued. Items dependent on their syntactic context are inherently unvalued, while others are merged with a value. 1st and 2nd person items are thus always unvalued for [ID], while this parameter might vary in the case of 3rd persons. This gives us the partition summed in table (32), which deconstructs the traditional splits between pronouns and anaphors on the one hand, but also between 1st/2nd person and

3rd person on the other hand.

Table 4.1: The featural typology of pronominals

φ	[ID]	GRAMMATICAL PERSON	PRO/ANAPH	EXAMPLE
[PARTICIPANT, SPEAKER]	[ID: _]	1 st person	Pronoun	<i>me</i>
[PARTICIPANT, ADDRESSEE]	[ID: _]	2 nd person	Pronoun	<i>te</i>
[Ø]	[ID: _]	3 rd person	Anaphor	<i>se</i>
[Ø]	[ID: i]	3 rd person	Pronoun	<i>le/la</i>

Finally, another possible split is often mentioned in the literature and deserves some attention, namely the split between 3rd person pronouns and 3rd person full referential DPs. 3rd person pronouns are often described as being more contextually dependent than 3rd person referential DPs. Yet they do not systematically obey PCC effects, suggesting that their context-linking requirement is different than that of 1st and 2nd person pronouns and 3rd person reflexives. While all pronouns might be said to be dependent on the extra-linguistic context for their interpretation, as they may only refer to salient individuals in the discourse, in the case of 3rd person pronouns like *le/la*, their interpretation is determined purely pragmatically and does not involve any syntactic linking to context, as indicated by the fact that they are not subject to any syntactic intervention effects. In the case of 3rd person reflexives like *se*, an additional syntactic step, i.e. context-linking, is needed, explaining their syntactic restrictions. This distinction is also visible in the possible interpretation of syntactically context-linked pronouns, i.e. 1st/2nd person pronouns, bound pronouns and reflexive anaphors: their reference is fixed within the clause (by the antecedent or by the speaker/addressee), while the reference of only-pragmatically interpreted pronouns, i.e. non-bound 3rd person pronouns, remains potentially ambiguous.

This contrast allows us to account for the PCC-like restriction on 3rd person bound pronouns in ditransitives, which cannot occur as DOs in the presence of a weak IO, illustrated once more in the examples below.

- (33) a. Anne_i croit qu' on va la_{i/j/h...} recommander au patron_k pour
 Anne thinks that s.o. will 3FSG.ACC recommend to.the boss for
 la promotion.
 the promotion.
 'Anne_i thinks that they will recommend her_{i/j} to the boss_k for the promotion.'
- b. Anne_i croit qu' on va la_{*i/j/h...} lui_k recommander, au
 Anne thinks that s.o. will 3FSG.ACC 3SG.DAT recommend to.the
 patron_k, pour la promotion.
 boss for the promotion.

‘Anne_i thinks that they will recommend her_{*i/j} to him_k, the boss_k, for the promotion.’
(Charnavel & Mateu 2015:672)

In (33b), in the presence of a dative intervener *lui*, the 3rd person embedded DO pronoun *la* cannot refer to the matrix subject *Anne*, an individual introduced in the same sentence. In other words, (33b) is grammatical only if the referent of *la* is pragmatically determined, i.e. if it is salient in the extra linguistic context and its interpretation does not involve any syntactic requirement, such as valuation of an unvalued [ID]-feature for context-linking. Grammaticality is ensured as long as the reference of *la* remains unspecified and it is not coreferent with another nominal in the binding domain (here including the matrix clause as these cases are treated by Charnavel and Mateu (2015) as cases of long-distance binding). If *la* is bound by *Anne*, i.e. the reference of *la* is syntactically fixed by context-linking, then one observes intervention effects. One could argue that *la* could be born with the same index as *Anne*, resulting in accidental coreference. I assume that this is ruled out on the basis that grammar favors bound representations over free representations, i.e. binding over coreference, following Reinhart (1983) (see Bhatt and Šimík 2009 for a different implementation of the same idea). For details about the mechanisms underlying the apparent long-distance binding observed in (33b), the reader is referred to Charnavel (2019); Sundaresan (2012).

Articulating [ID]-features and φ -features in the featural make up of pronouns thus accounts for the existence of different classes of 3rd person, based on their syntactic context-sensitivity, without having to resort to a complex person feature system.

4.3.2 The structure of pronouns

Another salient question is whether *all* 1st/2nd person items need to be licensed by agreeing in [ID]-features with a functional head. The typological literature on the PCC suggests that only weak pronouns, clitics and agreement markers are subject to PCC effects, implying that only they must be licensed, while strong pronouns are seemingly immune to this licensing condition. In parallel to this, contrasts between strong and weak pronouns in terms of their deictic components have been evidenced in Dutch and Blackfoot in the work of Gruber (2013). As reported above, strong pronouns seem to involve a deictic component that is absent in weak pronouns. Of course, this does not imply that weak pronouns cannot be deictic, as obviously 1st and 2nd person weak pronouns exist in many languages. As evidenced by the Dutch examples above and repeated here, weak 2nd person *je* can have an indexical reading.

(34) a. *Je: indexical + generic reading*

In Nederland leer je fietsen zelfs voordat je leert lopen.
in Netherlands learn you_{weak} cycle even before you_{weak} learn walk

‘In the Netherlands, you_{ind.} learn to ride a bike before you_{ind.} even learn to walk.’

also: ‘In the Netherlands, one learns to ride a bike before one even learns to walk.’

b. *Jij: indexical reading only*

In Nederland leer jij fietsen zelfs voordat jij leert lopen.
 in Netherlands learn you_{strong} cycle even before you_{strong} learn walk

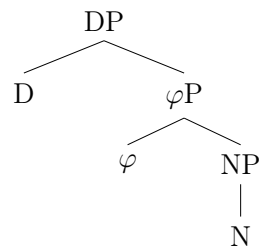
‘In the Netherlands, you_{ind.} learn to ride a bike before you_{ind.} even learn to walk.’

not: ‘In the Netherlands, one learns to ride a bike before one even learns to walk.’ (Gruber 2013: 131)

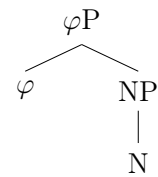
The following tension thus arises: on the one hand there seems to be a connection between the weakness of the pronouns and their need to be contextually licensed (only weak items are canonically subject to the PCC), and on the other hand strong pronouns seem to encode inherent indexicality while weak pronouns do not necessarily do so.

I therefore propose that strong pronouns are inherently contextually-linked, while weak pronouns need to realize this link by agreeing with a functional head. Following the pronominal typology of Déchaine and Wiltschko (2002) (see also Cardinaletti and Starke 1994, 1999), I propose that strong pronouns are composed of a D-layer and a φ -layer, while weak pronouns are maximally φ Ps (some pronouns might be even smaller, e.g. *n*/NPs). For my present purposes I do not make a further distinction between weak pronouns or clitics.

(35) a. *Strong pronouns*

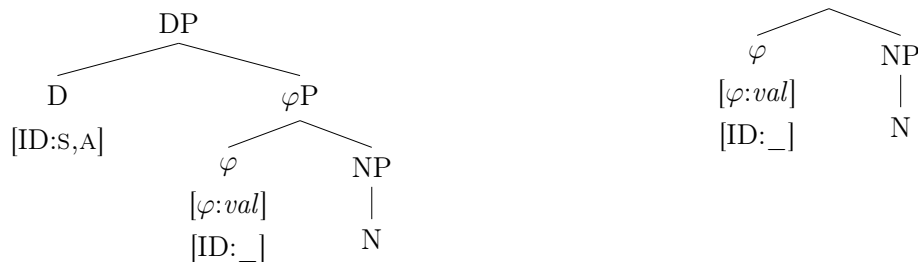


b. *Weak pronouns*



I follow Gruber (2013) in assuming that the presence of a D-layer automatically grants the pronoun a deitic, i.e. contextually bound reading. I therefore postulate that like C and v, D heads are a locus of context encoding, i.e. a locus for valued speech act features. This translates as D heads being inherently specified for [ID]-features and assigned values/indices for the speaker and the addressee when they are merged in the structure. As proposed above, all 1st and 2nd person pronouns or contextually dependent pronouns have unvalued [ID]-features, which I suggest are located on their φ head. This yields the following typology:

- (36) a. *Strong 1st/2nd person pronouns* b. *Weak 1st/2nd person pronouns*



In the case of strong pronouns, the context-dependent features of 1st and 2nd person φ head can be immediately valued in the presence of a D head, which is endowed with valued features encoding the speech act context and participants. Therefore D is a person licenser, i.e. a speech act center, in itself, explaining the strong/weak asymmetry observed both in PCC effects (only weak items must be licensed) and in deictic readings (only strong items are inherently deictic). In contrast weak pronouns have no such DP-internal way to be licensed, and must resort to a DP-external licenser such as v.

Splitting the workload between D heads and [ID]-features has several advantages. First, unlike approaches like Gruber (2013) or Martin and Hinzen (2014), for whom deictic properties are equated with the presence of a D head, the present proposal can account for the fact that both strong and weak (D-less) pronominal items can be indexical. Second, it nicely accounts for the fact that while both strong and weak 1st/2nd items obviously have indexical interpretations (by virtue of having unvalued [ID]-features), only weak items are subject to licensing restrictions following from their contextual dependency (since their licensing needs cannot be met DP-internally). The present proposal is comparable to the recent analysis of Stegovec (2020), who also links the structural size of pronouns to the need to be licensed, with weak items being deficient in a sense that strong items are not – one important difference being that he attributes PCC effects to a φ -feature deficiency, and specifically a person or π -deficiency. The contrast between weak and strong 1st/2nd person pronouns in terms of PCC-sensitivity and inherent indexicality can thus be straightforwardly captured under the present approach. Note that Kaur (2016, 2019b) has recently argued that in some languages, such as Punjabi, person effects also occur with strong pronominals. A potential avenue to deal with this claim would be to ascertain the structure of Punjabi nominals and pronominals and in particular, whether Punjabi could be characterized as a D-less language, which would explain the PCC-sensitivity of its apparently strong pronouns. This would imply that strong pronouns do not necessarily always involve a D head, i.e. that there might be multiple ways to be a strong pronoun. Finally, this is consistent with the observation that among the languages surveyed in 3.1.2, only languages with weak pronominal anaphors display PCC effects in reflexive constructions. Languages like Basque, whose anaphors are complex DPs of the form

possessive pronoun + head, do not show PCC effects.

4.3.3 The typological overlap between object agreement and PCC effects: to be or not to be a licenser

While dissociating [ID] and φ provides a straightforward answer to the existence of different classes of 3rd person and the weak/strong pronoun dichotomy, it raises the question of the apparent correlation between PCC effects and object φ -agreement. The typological literature on the PCC converges on saying that descriptively, PCC effects occur only in languages that have either weak and clitic pronouns, as addressed in the previous section, or object agreement. We have seen this with Swahili or Warlpiri above, which both display PCC effects despite not having overt weak pronouns, but object agreement instead. The apparent correlation between PCC effects and the presence of object agreement constituted one of the supporting arguments for accounts of the PCC as triggered by φ -features (Preminger 2019b), and is less straightforwardly accounted for in the present approach.

Indeed, the proposal developed here puts the trigger for licensing on pronouns, specifically weak, context-sensitive pronouns, in the shape of an unvalued [ID]-feature. Given this assumption, if one standardly assumes that φ -agreement on a verb corresponds to the presence of an uninterpretable unvalued φ -feature on a functional head like *v*, then there is no reason for why an object agreement probe should be subject to the PCC in the present system: *v* is not only a functional category (not a pronoun) but it also typically does not involve an unvalued [ID]-feature (except for *v_{REFL}*). Consistently with this prediction, I first provide two observations that weaken the correlation between φ -object agreement and PCC effects, before outlining the theoretical consequences for my account.

First, in many of the languages that show PCC effects, the nature of the object marker has to be carefully disambiguated between a cliticized pronoun and a genuine agreement marker. Any language whose object markers are in fact pronominal in nature thus falls under the generalizations drawn about weak vs strong pronouns in section 4.3.2. This is for instance the case of Basque. Preminger (2019b) uses the following data set from Basque to substantiate the claim that the PCC is absent in contexts where there is no φ -agreement, in support of the hypothesis that person licensing can be equated with φ -agreement.

(37) Basque (Laka 1996)

- a. *Zuk *harakin-ari* ni saldu **n(a)i**-o-zu.
 you.ERG butcher-ART.DAT me.ABS sell 1SG.ABS.AUX-3SG.DAT-2SG.ERG
 Int.: ‘You have sold me to the butcher.’ *IO 3SG > DO 1SG
- b. Gaizki irudi-tzen zai-t [zuk ni]
 wrong look-IPFV AUX.3SG.ABS-1SG.DAT you.ERG me.ABS

harakin-ari *sal-tze-a*].
 butcher-ART.SG.DAT sold-NMLZ-ABS.SG
 ‘It seems wrong to me for you to sell me to the butcher.’ IO 3SG > DO 1SG

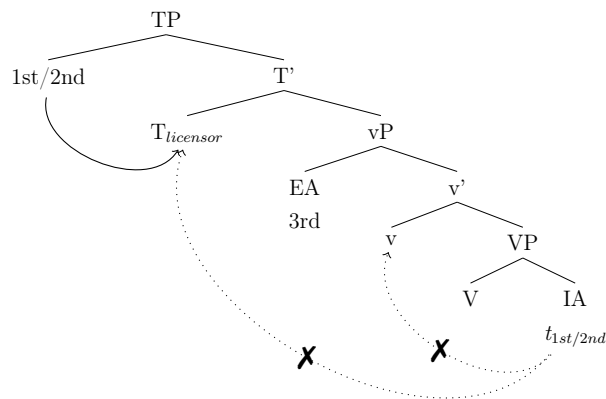
In (37a), both objects agree with the finite verb, resulting in a PCC effect. In contrast, the combination of a 1st person DO and a 3rd person IO is grammatical when they are not agreed with, like in (37b) where the embedded verb is non-finite. This data thus suggests that person effects are linked to φ -agreement.

However, Arregi and Nevins (2008, 2012) and Preminger (2009) have independently argued that agreement markers in Basque are in fact pronominal clitics. Among others, they base this claim on the fact that in the absence of an accessible argument, these markers do not assume a default form, but rather are absent altogether, a property that has been associated with clitic-hood (see also Kramer 2014, and further discussion of this diagnostic in 6.1.2.2). Assuming that Basque agreement markers are in fact cliticized weak pronominals, and assuming that only weak pronouns are in need of licensing due to their deficient structure, then one could straightforwardly argue that in example (37b) above the lack of PCC effect is due to the absence of clitic pronouns. In (37b), the absolutive pronoun *ni* would be a strong pronoun, not doubled by a pronominal clitic, and therefore nothing in this sentence would require licensing. In contrast, *ni* in (37a), as well as the dative object *harakinari*, are doubled on the verb by clitics, which, being weak pronominals, require licensing. Under this view, clitics can then be generated with or without resorting to φ -agreement, and still be independently subject to PCC effects. This alternative accounts for the Basque data without appealing to the presence or absence of φ -agreement, but simply to the size of the pronouns present.⁹

Additionally, if at all there is a correlation between φ -object agreement and PCC effects, it is at best a one-way correlation. While it is to my knowledge true that languages without object agreement or weak/clitic pronouns do not show PCC effects, there are many with either one or the other that *do not* exhibit PCC effects. This is for instance the case of Kashmiri (Indo-Aryan), which although it has a very rich agreement and clitic system, does not have PCC effects in double object constructions, as exemplified by the grammaticality of the following sentences.

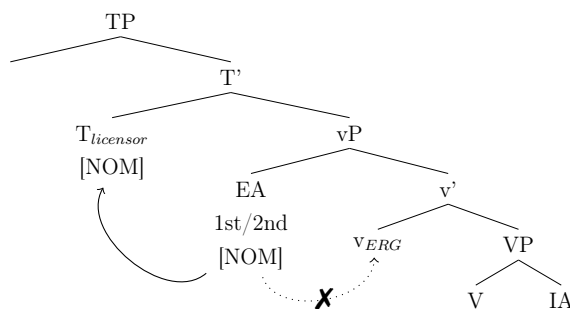
⁹The second set of data used by Preminger to support this conclusion is from Icelandic restrictions on person agreement observed in dative-nominative constructions. However, a growing body of literature suggests that none of these restrictions are instances of the PCC, voiding the use of Icelandic as evidence for this contrast (see Hartmann and Heycock (2018) for experimental evidence and Ackema and Neeleman (2018); Bjorkman and Zeijlstra (2019); Schütze (2003); Sigurðsson and Holmberg (2008) for an alternative explanations to these restrictions).

- (39)
- Inverse: movement of the IA for licensing by T*



Such an interaction can also be observed in languages with person-based ergative splits, whose case patterns vary according to the person of the subject, singling out 1st and 2nd person subjects which never receive ergative case, in contrast with 3rd persons. As argued by [Alexiadou and Anagnostopoulou \(2006\)](#) for Lummi (Salish) and [Kaur \(2016, 2019a\)](#) for Punjabi (Indo-Aryan), such differential subject marking comes about because the lower agreeing head *v* which would license the subject for ergative case (*v*_{ERG}) is unable to license person. 1st/2nd person subjects must agree with a higher person licensing head, such as *T*, resulting in non-ergative case marking.

- (40)
- Person-based ergative split: licensing of the EA by T*



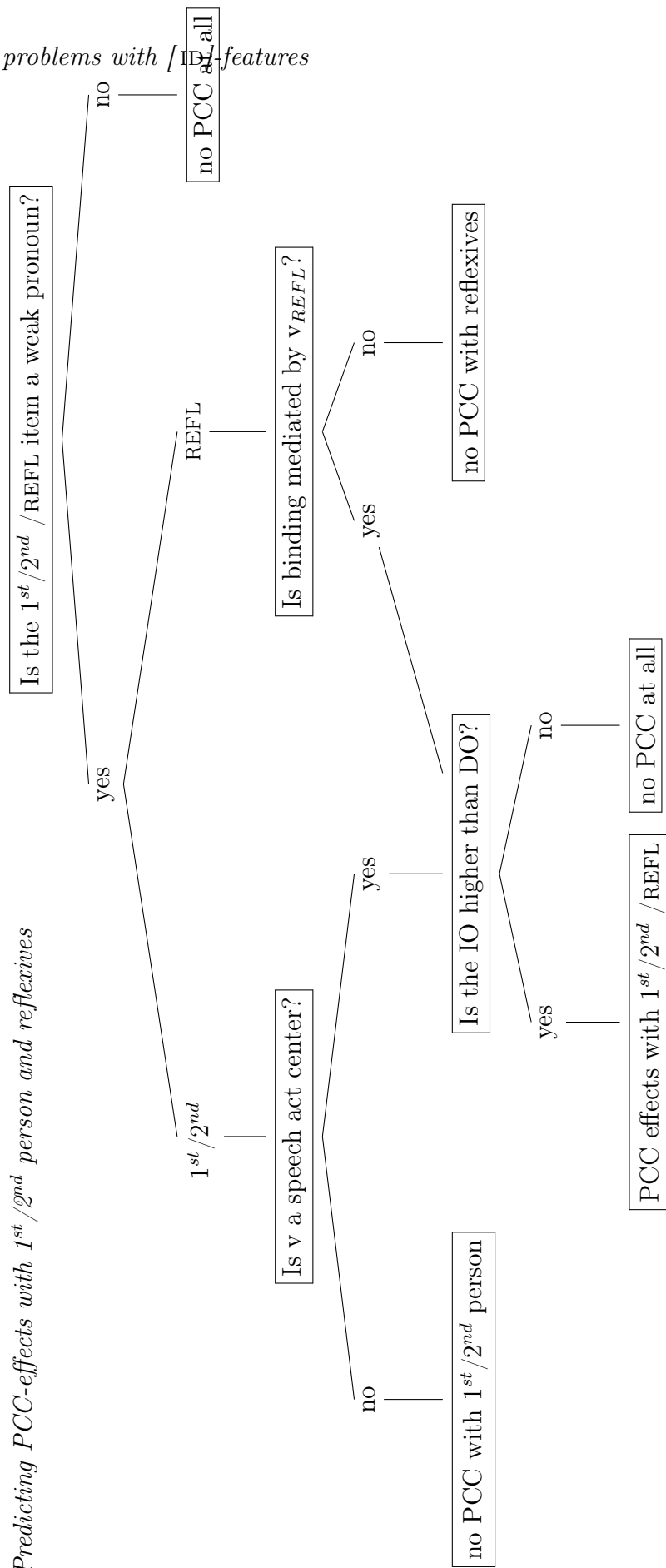
Finally, 1st and 2nd person items are privileged candidates for differential case-marking of objects across languages that use it to license certain classes of arguments, such as DOM. [Kalin \(2018\)](#) and [Kaur \(2019a\)](#) argue that DOM arises as the result of the merging of a secondary licenser, such as a PP or a DOM-assigning *v*, which is otherwise absent. All of these proposals have in common that they account for person effects in terms of presence or absence of a given licenser, which can be either at the *v* level or at the *T/C* level, predicting which types of restrictions will follow: *v* licensers yield person effects in the object domain only, while *T/C* licensers give rise to restrictions involving the subject. This also predicts a range of cross-linguistic variation. Languages with only a *v* level licenser

will show only PCC effects (e.g. French). Languages with only a C/T level licensor will show only a direct-inverse alternation or a person-based case split, depending on the languages resources. Languages with both a low and a high licensors are predicted to have both type of effects; in fact, Haspelmath (2004), based on Leavitt (1996: 36), reports Passamaquoddy to be such a language. Finally, this predicts the existence of languages without any licensing head, i.e. without any speech acts centers. Such languages would be characterized by a complete absence of person effects, including in the presence of weak pronouns.

The picture that emerges is the following. On the one hand, we have seen that PCC effects arise with weak pronouns. On the other hand, they only occur in languages where v is a person licensor. Finally, the presence or absence of φ -agreement on the verb should be inconsequential given the theory sketched above. In the absence of weak pronouns and a licensing v , we expect that no PCC effects should arise. The implication is that PCC-languages with true object agreement are in fact PCC-languages with structurally deficient/weak pronominals, i.e. D-less and [ID]-deficient pronominals, and a v -level licensor, which happen to also have object agreement (a φ -probe on v). As tentative supporting evidence, it is well-known that object agreement often correlates with the possibility of object *pro*-drop. *Pro* arguments are of course assumed to have a minimal structure, and therefore to lack a D layer and count as weak, hence PCC-sensitive pronominals, strengthening the generalization that the PCC arises due to deficient pronouns. Although further research should be done in order to determined the validity of this hypothesis, the main take-away of this section is that the observation that PCC effects are found in languages with object agreement can be deconstructed in favor of a model that links PCC effects to the combination of weak pronominals and licensing v heads. The predictions of this model regarding the presence of PCC effects with $1^{st}/2^{nd}$ person and reflexives are summarized in the diagram in (41).

4.3.4 Intervention of IOs and the dative paradox

Recasting person licensing in an [ID]-feature based framework also has consequences for the featural make-up of dative indirect objects and the theory of intervention. The question of what counts as an intervener is tightly linked to what Preminger (2014) calls *the dative paradox*. The dative paradox stands for two seemingly incompatible observations, best instantiated by Icelandic. On the one hand, datives cannot trigger φ -agreement, suggesting that they either lack φ -features or that their φ -features are rendered invisible for φ -probes by virtue of their case. In the following examples, while a nominative subject controls φ -covarying agreement on the finite verb in (42a), the verb cannot agree with a non-nominative subject and instead shows the default form, as in (42b).

(41) *Predicting PCC-effects with $1^{st}/2^{nd}$ person and reflexives*

- (42) a. **Við** lásu^m/_{*las} bókina.
 1PL.^{NOM} read. 1PL/_{*3SG} the.book.ACC
 ‘We read the book.’
- b. **Okkur** vantaði/_{*vöntuðum} bókina.
 1PL.^{ACC/DAT} lacked. 3SG/_{*1PL} the.book.ACC
 ‘We lacked the book.’ (Sigurðsson 1996: ex.14-17)

On the other hand, datives act as interveners for φ -agreement and for person licensing. Intervention for person licensing has been amply illustrated throughout this and the previous chapter. Intervention for φ -agreement is illustrated by the following example. In (43a), the subject is dative and the verb agrees with the nominative object. In contrast, when an expletive is inserted in the subject position in (43b) and the dative now stands between the verb and the nominative object, φ -agreement between them is no longer possible.

- (43) a. **Einhverjum stúdent** finnast tölvurnar ljótar.
 some student.SG.DAT find. 3PL computer.the.PL.NOM ugly
 Some student finds the computers ugly. (Holmberg & Hróarsdóttir 2003: 999)
- b. Það finnst/_{*finnst} einhverjum stúdent tölvurnar
 EXPL find. 3SG/_{*3PL} some student.SG.DAT computer.the.PL.NOM
 ljótar.
 ugly
 Some student finds the computers ugly. (Holmberg & Hróarsdóttir 2003: 1006)

The principles of Relativized Minimality dictate that for a dative item to intervene between a φ -probe and a φ -goal, it must itself have visible φ -features. This results in a paradox: the φ -features of datives must at the same time be visible (to intervene) and invisible (to not trigger φ -agreement).

Different proposals have been put forth in the literature to account for the dative paradox, although it remains a matter of controversy. Three main analyses exist: the Activity Condition (Chomsky 2001), the case discrimination approach (Bobaljik 2008; Preminger 2014) and the functional shell approach (Rezac 2008). I will briefly introduce each of them and their problems, before motivating the functional shell approach as the working analysis for my present purposes.

The first approach to the dative paradox relies on Chomsky’s (2001) Activity Condition. The idea behind the Activity Condition is that arguments that have already entered into an agreement relation and got their uninterpretable case feature checked are deactivated for further agreement operations. For instance, a nominal that has received accusative case and has been agreed with by *v* cannot be assigned case or agreed with by

different functional head. Assuming that dative case on a nominal could be checked by a preposition or by a K(ase) head, this would render them inactive for φ -agreement with a φ -probe such as *v* or *T*, while keeping them visible for intervention, as the φ -features are still present, being interpretable. This approach suffers from several theoretical and empirical problems, as discussed in Preminger (2014: 134-136), Nevins (2004) or more recently Oxford (2017). One of the most fatal of these problems is the existence of multiple agreement configurations, where either the same nominal can trigger agreement on multiple probes, or a probe can agree with multiple goals, suggesting that a checked uninterpretable feature is not necessarily deactivated (Hiraiwa 2001; Polinsky & Potsdam 2001). This can be illustrated in Tsez below. An absolutive argument can trigger agreement on both the matrix and the subordinate verb in (44), in which Polinsky and Potsdam (2001) rule out the possibility of a null argument in the subordinate clause triggering agreement on the subordinated verb.

- (44) eni-r [už-ā **magalu** b-āc'-ru-li] b-iy-o
 mother-DAT boy-ERG **bread.III.ABS** III-eat-PST.PTCP-NMLZ III-know-PRS
 'The mother knows that the boy ate the bread.' (where bread=topic) (Polinsky
 & Potsdam 2001: 606)

This type of evidence ultimately undermines the Activity Condition and any approaches to the dative paradox based on it.

Another approach is proposed by Preminger (2014) which relies on Bobaljik's (2008) theory of case hierarchy and case discrimination. In a nutshell, this solution proposes that datives are not accessible goals for φ -agreement in a given language because probes are case discriminating, i.e. are relativized to certain cases (the central idea of Bobaljik 2008). Preminger (2014) adds a further stipulation to this, stating that if the first goal that a probe encounters is not acceptable because of its case, default agreement must be inserted and the derivation continued. While Preminger's approach seems technically workable, two observations from the domain of person licensing cast doubt on the crucial assumption that it relies on, namely that dative intervention, i.e. intervention effects of datives for φ -agreement and person licensing, is intrinsically linked with φ -agreement. Indeed, in this approach it is the unsuitability of datives for a case-discriminating φ -probe that results in their intervening for other operations involving that same φ -probe.¹⁰

First, Preminger's proposal predicts that dative intervention should always result in default agreement. Cases resulting in full-blown ungrammaticality are attributed by Preminger himself to operations different from pure φ -Agree that nevertheless depend on successful φ -agreement, such as movement. For instance, it is argued that the following examples from French are ungrammatical because in order to move to the matrix subject position, *Jean* would have to have been successfully targetted by φ -agreement by *sembler*

¹⁰How case discrimination is itself encoded is also a topic of debate and disagreement.

‘seem’. This is argued to be impossible because of the dative intervener.¹¹

- (45) *Jean_i semble [à Marie]_{DAT} [t_i avoir du talent].
 Jean seems to Marie have.INF of talent
 Int.: ‘Jean seems to Marie to have talent.’

Preminger’s argument here is that ungrammaticality arises not merely because the probe fails to φ -Agree with a case-matching probe, but because this failure prevents movement of *Jean* to Spec,TP, triggering an EPP violation due to an empty specifier. Contrast with the grammaticality of the same sentence with an expletive filling the subject position, and an embedded finite clause.

- (46) Il semble [à Marie]_{DAT} [que Jean a du talent].
 EXPL seems to Marie that Jean have.PRS.3SG of talent
 ‘It seems to Marie that Jean has talent.’

Failure of agreement is thus not the direct cause of ungrammaticality here. The prediction that mere failed φ -agreement does not result in ungrammaticality can be applied to the domain of person licensing. Dative intervention for person licensing does not give rise to default agreement, but to full-blown ungrammaticality, as already discussed in detail in 3.4.3. This observation suggests that person licensing is not a matter of mere φ -agreement failure that could be solved by default agreement, but involves a violation of another syntactic constraint (e.g. the PLC/CLR), possibly dependent on φ -agreement.

Second, the premise that dative intervention in PCC effects, dative intervention for φ -agreement and immunity of datives for φ -agreement are tied together as all following from case-discrimination in φ -agreement is challenged by variation in the clustering of these three parameters. Indeed, this approach for instance cannot account for languages in which datives do not intervene for φ -agreement but do intervene for the PCC. This is the case in French, where past participles – whose φ -probe is located on v, (see e.g. Roberts 2010; Rocquet 2010) – can φ -Agree with an accusative DO despite the presence of a dative IO, as in (47a), but an accusative DO cannot be licensed by that same head due to intervention of that same IO, as in (47b). This asymmetry is unexpected if both person licensing and φ -agreement boil down to φ -Agree and datives intervene in both cases because φ -probes are case-discriminating.

¹¹Note that the counterpart of (45) which makes use of a pronominalized dative experiencer is fully grammatical, for reasons that are unclear, casting doubt on the relevance on this to illustrate dative intervention.

- (i) Jean_i lui/me_{DAT} semble [t_i avoir du talent].
 Jean 3SG/1SG.DAT seems have.INF of talent
 ‘Jean seems to me/her to have talent.’

(47) *French*

- a. Je *la* **lui** ai décrit-e.
 I 3FSG.ACC 3SG.DAT have describe.PTCP-F.SG
 ‘I have described her to him/her.’ *No DI for φ -agreement*
- b. *Marie *me* **lui** présente.
 Marie 1SG.ACC 3SG.DAT introduce.PRS.3SG
 Int.: ‘Marie introduces me to him/her.’ *DI for the PCC*

Similarly, such an approach cannot account for the existence of languages in which datives are appropriate goals for φ -agreement but nevertheless interveners for the licensing of lower objects. Warlpiri is such a language, in which verbs can φ -Agree with dative IOs, as shown in (48a), but nonetheless IOs intervene for person licensing (48b). Again, if the φ -probe does not discriminate against datives, it is not clear what makes the dative an intervener for other purposes such as person licensing.

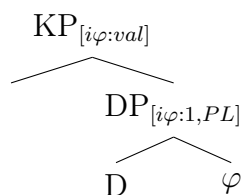
(48) *Warlpiri* (Hale 1973: 333-334)

- a. Ngajulu-rlu kapi-rna-**ngku**/*palangu *karli-jarra*
 1SG.ERG FUT-1SG.SBJ-2SG.IO/*3DU.DO boomerang-DU
 punta-rni nyutu-ku
 take.away-NPST 2SG-DAT
 ‘I will take the boomerangs away from you.’ *Datives are φ -goals*
- b. *Ngarrka-ngku kapi-Ø-*ji* punta-mi *ngaju-ku* pro_{2SG}.
 man-ERG FUT-3SG.SBJ-1SG.DO away-NPST 1SG-DAT
 Int.: ‘The man will take you away from me.’ *DI for the PCC*

More generally, Preminger’s approach fails to allow for cross-linguistic parametrization under the hypothesis that person effects are not ultimately φ -based.

This is made possible under the third and last approach, the functional shell or encapsulation approach (Rezac 2008). This approach proposes that datives DPs or φ P’s are embedded within a bigger functional PP or KP shell, which renders the φ -features of the DP itself invisible for probes. To account for the fact that datives nevertheless intervene for other φ -operations, the KP is assumed to bear its own set of φ -features. The proposed structure is schematized below.

(49)



As case is not always pre- or postpositional, and PPs which are not datives are not

necessarily interveners, I choose to represent this shell as a KP. Note also that the DP layer is potentially optional, and that weak pronouns could maybe just consist of a KP embedding a φ P. However, I will assume here that datives typically have a DP layer with its own valued [ID]-features, in keeping with [Martin and Hinzen \(2014\)](#).¹²

This approach can successfully account for the variation found in the status of datives, which can be all or some of the following: goals for φ -agreement, interveners for φ -agreement and/or interveners for person licensing. Abstracting away from person licensing for now, there are four logical possibilities for a dative argument with regard its behavior in φ -relations, which are summed up in the following table.

Table 4.2: Datives as φ -goals and interveners for φ -agreement

φ -GOAL	INTERVENER FOR φ -AGR.	EXAMPLE
no	yes	Icelandic
no	no	French, Italian
yes	yes	Warlpiri
yes	no	X

Assuming a functional shell structure for dative and other oblique case marked nominals, the first three possible scenarios can be represented.

The most prototypical case, i.e. the one summed up by the dative paradox, is a language in which datives are not φ -goals, but are nevertheless interveners for other φ -agreement relations. This is the case in Icelandic, as illustrated by (50a) and (50b), which respectively show that datives do not trigger φ -covarying agreement, and are interveners for agreement with lower nominative objects. In (50a), the verb cannot agree with the dative subject *stelpunum* ‘the girls’ and therefore shows up with 3rd person singular default agreement. In (50b), the dative argument *einhverjum stúdent* ‘some student’ intervenes for agreement of the verb *finnst* ‘to find’ with the nominative object *tölvurnar* ‘computer’.

(50) *Icelandic*

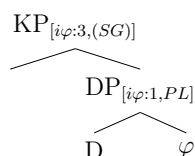
- a. **Stelpunum** leiddist/*leiddust í skólanum.
 girls.the.DAT bored.PST.3SG/bored.PST.3PL in school.the.DAT
 ‘The girls were bored in school.’ (Thráinsson 2007: 161)
- b. Það finnst/*finnast einhverjum stúdent
 EXPL find.3SG/*find.3PL some student.SG.DAT
tölvurnar ljótar.
 computer.the.PL.NOM ugly

¹²This is not necessarily always the case. Slovenian, discussed by [Stegovec \(2020\)](#), is a case in point, as depending on their ordering relative to accusative pronouns, datives may require licensing, suggesting the absence of a DP layer and a valued [ID].

Some student finds the computers ugly. (Holmberg & Hróarsdóttir 2003: 1006)

This scenario can be accounted for by assuming that the KP bears its own set of φ -features. These φ -features may either be maximally underspecified, or lexically specified for 3rd person only, or 3rd person, singular, masculine. Both will result in what corresponds to default agreement on the verb – the former solution being more economical – and will trigger intervention effects, since the outermost φ -features are visible, while in the meantime rendering the innermost φ -features inaccessible for a φ -probe.

(51) *Icelandic*

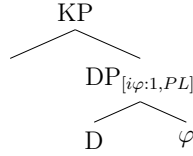


There are other languages, like French and Italian, in which datives are not φ -goals, but also not interveners for φ -agreement, as would be expected as per the dative paradox. This is illustrated with French below, where participle agreement with the direct objects or derived subjects occurs in various environments despite the presence of a dative argument, independently known to be located between the probe and the goal.

- (52) a. Je la **lui** ai décrit-e.
 I 3FSG.ACC 3SG.DAT have describe.PTCP-F.SG
 ‘I have described her to him/her.’ *Pronominal DO in DOC*
- b. Les lettres_i que_i je **lui** ai écrit-es cet été
 the letters.F.PL that I 3SG.DAT have written.PTCP-F.PL this summer
 ‘The letters that I have written to him/her this summer.’ *Wh-relative*
- c. Je les_i ai fait-es lire **à Marie** t_i.
 I 3FSG.ACC have made.PTCP-F.PL read.INF to Marie.
 ‘I have made Marie read them.’ *Causative*
- d. Marie **lui** sera décrit-e.
 Marie 3SG.DAT be.FUT.3SG describe.PTCP-F.SG
 ‘Marie will be described to him/her.’ *Passive*

This second possibility is represented in (53). The KP lacks any φ -features, making it completely inactive for φ -agreement, and thus preventing it both from triggering φ -agreement and from intervening for other DPs to φ -agree.

(53) *French*



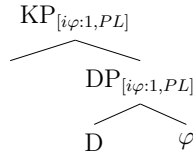
The third scenario concerns languages in which datives are φ -goals and in which they also are interveners for φ -agreement, which is expected unless there are two separate probes. This is for instance the case in Warlpiri, in which dative indirect objects trigger φ -covarying agreement and intervene for direct objects to trigger φ -agreement.

(54) *Warlpiri*

- a. Ngajulu-rlu ka-na-**rla** karli-ki warri-rni
 I-ERG PRS.IPFV-1SG.SBJ-3.IO boomerang-DAT seek-NPST
 ‘I am looking for a boomerang.’ (Hale 1973: 335)
- b. Ngajulu-rlu kapi-rna-**ngku** / *palangu karli-jarra
 1SG.ERG FUT-1SG.SBJ-2SG.IO/*3DU.DO boomerang-DU
 punta-rni **nyutu-ku**
 take.away-NPST 2SG-DAT
 ‘I will take the boomerangs away from you.’ (Hale 1973: 333)

In such languages, the φ -features of the DP will percolate up to KP, resulting in covarying φ -agreement with datives, as is pictured in (55). Datives thus constitute φ -goals both for φ -agreement and intervention.

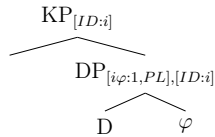
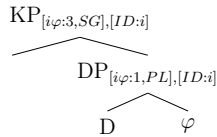
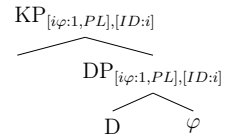
(55) *Warlpiri*



Finally, the fourth scenario, which would correspond to a language with a single probe in which datives are φ -goals but not interveners, is not expected to be possible and to my knowledge unattested – it would constitute the reverse dative paradox. Such a hypothetical case would require visible φ -features on the outmost layer, accessible for a φ -probe, but which somehow would not intervene for further Agree relations by that same probe. This is a priori ruled out by Relativized Minimality, which states that any accessible matching feature will constitute an intervener.

A KP approach can thus successfully account for the variation that is observed with regard to the status of φ on datives. In addition, it can also account for the fact that person licensing effects can be dissociated from φ -agreement. Factoring in [ID]-features, valued instances of [ID] can be located on KP, through percolation from DP, under all

three of the above scenarios, predicting that datives might intervene for person licensing regardless of whether they are φ -goals (as in (58)) or just φ -interveners (as in (57)) or none (as in (56)).

(56) *French*(57) *Icelandic*¹³(58) *Warlpiri*

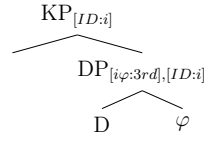
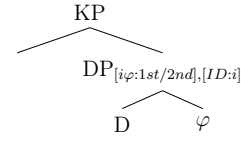
Similarly, one can also imagine languages without the PCC corresponding to the three cases above, in which KPs lack [ID]-features, as represented in (51), (53) and (55), or where [ID]-features would be located at the D level only. That being said, absence of person effects could be attributed to a variety of other factors (e.g. strong pronouns with D-internal licensing or absence of v-level speech act center), as summed up in figure (41) in the previous section. The present proposal thus is compatible with an elegant solution to the dative paradox and its microparametrization as well as the dissociation of person effects and φ -features, which manipulates the location of φ and [ID]-features independently along the KP/DP spine.

4.3.5 Strong vs weak PCC with [ID]

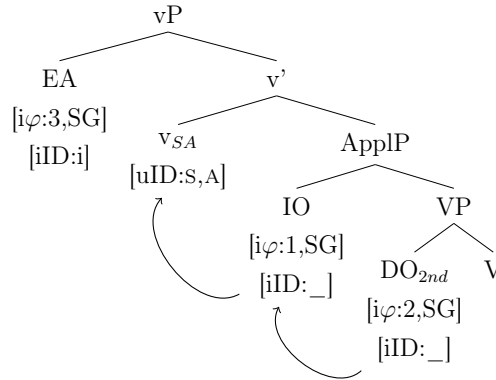
Another possible level of parametrization of datives concerns weak *vs* strong PCC effects. Recall that languages that have the weak PCC, such as Italian or Swahili, allow IO 1st > DO 2nd and IO 2nd > DO 1st combinations, but disallow *IO 3rd > DO 1st/2nd. In other words, only some datives constitute interveners for [ID]-deficient DOs, in this case 3rd person datives.

Within the model proposed here, this can be accounted for by manipulating the structure and featural composition of non-intervening datives. Languages displaying the weak PCC are languages where 1st and 2nd person datives do not intervene. Keeping in mind the proposed structures for dative pronouns just outlined, this could be taken to suggest that [ID]-features of 1st/2nd person pronouns are not visible for agreement or intervention purposes, unlike [ID]-features of 3rd person datives. If one assumes that datives are shelled in KPs, it could be hypothesized that while the [ID]-feature of intervening 3rd person datives is visible at the level of the KP, that of non-intervening 1st/2nd person datives is located at the DP level and thus made invisible by the KP layer, resulting in the following structures.

¹³Whether Icelandic should be assumed to show PCC effects or not is a matter of debate and will be addressed in 9.4.

(59) *3rd person dative*(60) *1st/2nd person dative*

However, it is unclear why 3rd person pronouns would allow percolation of their [ID]-feature to their KP, while 1st/2nd person would not. Instead, a more consistent explanation can capitalize on the already established difference between 3rd person on the one hand and 1st/2nd person on the other, namely the [ID]-deficiency of the latter. In particular, I propose that in languages displaying the weak PCC, 1st/2nd person datives differ from 3rd person datives in that the former have an unvalued [iID:_] feature, allowing further probing of the DO to proceed up to the valued counterpart located on v thanks to a multiple Agree relation. As illustrated in the following derivation, when the unvalued [iID:_] of a 2nd person DO probes up to be valued, it encounters the unvalued [iID:_] of the 1st person IO. Because the latter lacks a value, it cannot satisfy the DO's probe, which therefore keeps probing to v. Both the 1st/2nd person IO and the DO can therefore value their unvalued [ID]-feature and be context-linked.

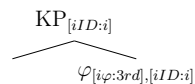
(61) *The weak PCC effect*

A multiple agree relation is thus enabled by unvaluedness of the IO, allowing 1st/2nd person IOs to be transparent for licensing/context-linking of the DO. The respective φ -features of the DO and IO ensure that they each are endowed with the index corresponding to the intended meaning. The eventuality of them obtaining the same index is ruled out by constraints on reflexivity introduced in 4.2.3. The insight behind this account of weak PCC effects is similar to φ -based accounts of the PCC based on the competition of all IOs and 1st/2nd person DO to be licensed by v (e.g. [Anagnostopoulou 2005](#); [Pancheva and Zubizarreta 2017](#)).

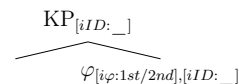
Given the assumptions made above, something more needs to be said about the structure of such datives. Indeed, in 4.3.4 I worked under the assumption that datives always

have a DP layer, and in 4.3.2 I attributed inherent [ID]-values on strong pronouns to the presence of a D layer. In order to make the claim that in weak PCC languages 1st/2nd person datives have unvalued [iID: _], one has to revise the first of these assumptions: in such languages, dative pronouns must be DP-less, i.e. must be structurally weak, thus allowing for the possibility of unvaluedness. The proposed structures are schematized here, where it is assumed that KPs can select either DPs or φ Ps.

(62) 3rd person dative



(63) 1st/2nd person dative



This hypothesis remains consistent with them bearing a KP (or not), allowing for the types of parametrizations reviewed in 4.3.4, while at the same time accounting for the possibility of weak *vs* strong PCC effects.

4.3.6 Conclusion

This section has explored five of the issues that a theory of person licensing and PCC effects based on [ID]-features can solve.

First, as analyzed in section 4.3.1, dissociating φ and [ID]-features allows for an understanding of why certain 3rd persons are subject to the PCC while others are not, without resorting to complex φ -specifications: the cut is made instead thanks to context-sensitivity and valuedness of [ID]-features.

Second, a number of insights can be gained by considering the internal structure of pronouns, and in particular the weak *vs* strong pronoun dichotomy. While 1st/2nd person strong pronouns are inherently indexical and not subject to the PCC, 1st/2nd weak pronouns can be shown to lack such inherent indexicality, but are famously the choice target of PCC effects. In 4.3.2, I have argued that these properties correlate with the presence or absence of a D-layer, which can act as a local context linker. Only weak 1st/2nd pronouns are subject to PCC effects, because their [ID]-feature cannot be valued DP-internally.

Such a claim in turn raises the question of the reported connection between the PCC and not only weak pronouns, but also φ -agreement markers. In the theory sketched in this chapter, where unvalued [ID]-features on pronouns are the trigger for PCC effects, the presence or absence of φ -agreement on the verb should be inconsequential. In 4.3.3, I offer some initial considerations that suggest that the relevant factor, beyond pronominal deficiencies, should be whether *v* is a person licenser, i.e. a speech act center, in a given language, rather than a φ -probe.

Fourth, in 4.3.4 I turned to the dative paradox, and the issue of IO intervention in PCC

effects and φ -agreement in general. Relying on an articulated KP/DP spine, I propose a typology of datives which allows for microparametrization of dative intervention.

Finally, in 4.3.5 I extend this proposal to variation between weak and strong PCC effects, showing that in weak PCC languages 1st/2nd person datives do not constitute interveners due to them being structurally weak. The theory proposed in this chapter can thus successfully address many more general issues that are linked to person licensing, in a consistent manner.

4.4 Summary and overview of the following chapters

The first part of the thesis provided the necessary theoretical background needed to undertake the study of the reflexive anaphors, more particularly in the context of double object constructions. Chapter 2 introduced the theoretical background of the study of anaphors as opposed to pronouns, providing a brief overview of GB binding theory and stressing the important insights of [Reinhart and Reuland \(1993\)](#). It then introduced minimalist theories of binding as Agree as a frame of reference, outlining the key assumptions that are needed for the analysis. In particular, I introduced the pivotal question structuring the thesis: assuming that binding is Agree, which features are at play in the relation established between the anaphor and its antecedent? The first hypothesis, according to which binding is a φ -feature relation, was shown to face many challenges. In contrast, the second, perhaps less-well established hypothesis, according to which binding is powered by referential [ID]-features, encoding the referential (non-)identity of arguments in a derivation, was shown to circumvent those challenges and to have support from other domains of syntax.

Chapter 3 argued that we can shed light on the featural correlate of anaphoric relations by looking at a particular class of restrictions on reflexive anaphors paralleling those found with 1st/2nd person in double object constructions, namely the Person-Case Constraint. This chapter introduces the central data, and outlines previous accounts of the PCC, which coincidentally have been developed around the claim that 1st/2nd person licensing is φ -agreement. However, it is argued that such accounts do not successfully account for the inclusion of reflexive anaphors in a unified theory of intervention effects in ditransitives, on top of suffering from many independent shortcomings.

Building on the challenges faced by (i) theories of the PCC in terms of person φ -features and (ii) theories of anaphoric binding as φ -agreement, chapter 4 develops an account for the licensing of 1st/2nd person and reflexives based on [ID]-features. It proposes that the licensing requirement of 1st/2nd person is motivated by their inherent link to a syntactic representation of the participants (speaker and addressee) of the discourse context, arguing that this link is represented in syntax as an Agree relation between an

unvalued [ID]-features on 1st/2nd person pronouns on the one hand and a syntactic representation of utterance context (a speech act center) on the other. This context-linking requirement is unified with that constraining binding of weak local reflexive anaphors, understood as a [ID]-agreement relation between an anaphor and its antecedent. The end of this chapter addresses several side issues that can be accounted for within the theory proposed, among which the status of 3rd person pronouns, the structure of pronouns and the specific sensitivity of weak pronouns to context-licensing, the spurious link between φ -agreement and person licensing, the reasons behind dative intervention and finally the possible ways to account for other variants of the PCC, such as the weak PCC.

In the next part, I show the analysis at work, by means of the detailed study of two languages, French and Swahili. For both languages, I provide a thorough syntactic analysis of their primary reflexivization strategies, respectively the reflexive clitic *se* for French and the verbal reflexive marker *-ji-*, analyzed as anaphoric agreement, for Swahili, and show how reflexive anaphors and 1st and 2nd person pronouns are licensed in these languages according to the proposal developed in chapter 4. A detailed investigation of these languages will provide additional support for the role of [ID]-features in binding and person licensing. In particular, it will allow me to define the role played by reflexive voice heads, found in both languages, reverting to one of the key insight of [Reinhart and Reuland \(1993\)](#) that in such languages reflexivization is two-fold in that it necessitates not only coindexation but also reflexive-marking, i.e. mediation by a reflexivizer. In doing so, I will also develop a full-fledged theory of anaphoric agreement, i.e. agreeing verbal reflexive markers found in many languages, whose characteristics substantiate the theory of binding proposed in this thesis.

Part II

The analysis at work: reflexives and
participants in French and Swahili

Chapter 5

French reflexives and the Person-Case Constraint

This chapter focuses on French *se*, perhaps the best-known case of PCC effects with reflexives. The aim of this chapter is twofold. First, it is to determine the syntax and featural composition of *se*, and what it may tell us about the features at stake in anaphoric binding. Second, it is to provide a detailed analysis of the common patterns of reflexives and 1st and 2nd person in double object constructions in French. Although French reflexives are well-studied and data readily available, their analysis remains controversial and a number of puzzles subsist, which the present chapter tackles. The data in this chapter, unless noted otherwise, come from the native speaker's intuitions of the author and from informal data collection among French and Belgian speakers of French.

The chapter is organized as follows. I start by establishing the basic properties and syntactic structure of *se*-reflexive constructions. Section 5.1 provides a general introduction to the reflexive clitic *se*. Sections 5.2 and 5.3 revisit the syntax of *se*-reflexives. In particular, section 5.2 addresses the controversial syntactic status of *se*-reflexives, and argues that contrary to widespread assumptions, they are syntactically transitive constructions. By doing so, this section provides an overview of the distribution, syntactic restrictions and allegedly intransitive-like properties of *se*-reflexives, as well as of the abundant literature on the topic. A thorough analysis of *se*-reflexives ultimately allows me to contribute to the debate on the structure, and in particular the valency of French *se*-reflexives, by showing that *se* has case, has a φ -featural content, is an anaphoric argument of the verb and that *se*-reflexives in French are transitive constructions. Their particular binding characteristics, e.g. their local subject-orientation, and their intransitive-like morphological and syntactic properties are shown to derive from the presence of a reflexive voice, following the analysis of Ahn (2015). This proposal is developed in section 5.3, where I furthermore explore how reflexive voice and [ID]-agreement work together in order to derive the conditions on reflexivity found with French *se*.

Having established a strong empirical and theoretical basis for the study of French reflexives, I turn to the core matter of this dissertation, namely common licensing restrictions on 1st/2nd person and reflexives in double object constructions. Building on the data introduced in chapter 3 and applying the proposal developed in chapter 4, section 5.4 provides detailed derivations for the licensing of 1st and 2nd person pronouns and reflexive *se* in terms of [ID]-features, showing the analysis in action. Furthermore, I demonstrate that similar mechanisms can be shown to underlie previously unexplained restrictions on reflexives in causatives. Introducing a novel parallel with similar restrictions with 1st/2nd person pronouns, I build on a recent proposal by Sheehan (to appear) to analyse the latter, as well as the corresponding restrictions on reflexives, as another type of PCC-effects.

Finally, the last section of this chapter (5.5) will put the French data in a cross-linguistic perspective and confront it with its close neighbour Italian. Italian reflexives offer a picture that is inconsistent with the facts observed for French, sharing some traits and diverging in others. This section will provide a point-by-point comparison of both languages, and look to account for the observed disparities.

5.1 French *se*-reflexives

Se-reflexives instantiate the standard reflexivization strategy in French. In simple transitive clauses, reflexivity is marked by the clitic *se* (/sə/), illustrated in (1a) below, or its phonologically conditioned allomorph *s'* (/s/) when followed by a vowel, as in (1b).

- (1) a. Il_i **se**_{i/*j} regarde dans le miroir.
 He.NOM REFL watch.PRS.3SG in the mirror
 ‘He_i looks at himself_{i/*j} in the mirror.’
 b. Il_i **s'**_{i/*j} est regardé dans le miroir.
 He.NOM REFL be.PRS.3SG watch.PTCP in the mirror
 ‘He_i has looked at himself_{i/*j} in the mirror.’

Se is in complementary distribution with pronominal clitics. Like them, *se* linearly precedes the finite verb or auxiliary, including in composed tenses (auxiliary + participle) as in (1b). As illustrated in (2) below, when the subject and the direct object of the verb *regarde* ‘watch’ are coreferential, a clitic pronoun is ungrammatical, as per Principle B, and must be replaced by the reflexive clitic *se*, as in (1)

- (2) Il_i **le**_{*i/j} regarde dans le miroir.
 He.NOM 3MSG.ACC watch.PRS.3SG in the mirror
 ‘He_i looks at him_{*i/j} in the mirror.’

As for its form, *se* is invariable for number and gender, and may be anteceded by singular as well as plural antecedents, as well as masculine or feminine ones.

- (3) Ils/elles_i **se**_{i/*j} présentent au président.
 3MPL/3FPL REFL introduce.PRS.3PL to.the president
 ‘They_i introduce themselves_{i/*j} to the president.’

However, *se* is restricted to 3rd person antecedents. The examples in (4) show that *se* is ungrammatical with a 1st or 2nd person antecedent. To express reflexivity with 1st or 2nd person arguments, French resorts to the pronominal paradigm: 1st and 2nd person reflexives are syncretic with 1st and 2nd person object pronouns, as the examples in (5) illustrate. *Se* is thus the only unambiguously anaphoric form, and can be classified as a 3rd person anaphor.

- (4) a. Je_i ***se**_i/**me**_i présente au président.
 1SG.NOM 3REFL/1SG introduce.PRS.1SG to.the president
 Int: ‘I_i introduce myself_i to the president.’
 b. Vous_i ***se**_i/**vous**_i présentez au président.
 2PL.NOM 3REFL/2PL introduce.PRS.2PL to.the president
 Int: ‘You_i introduce yourselves_i to the president.’
 (5) a. Elle_i **me**_j présente au président.
 3SG.NOM 1SG.ACC introduce.PRS.3SG to.the president
 ‘She_i introduces me_j to the president.’
 b. Nous_i **vous**_j présentons au président.
 1PL.NOM 2SG.ACC introduce.PRS.1PL to.the president
 ‘We_i introduce you(pl.)_j to the president.’

The paradigm of dative and accusative pronominal and reflexive clitics is summed up in table 5.3 below.

Table 5.1: Paradigm of object clitic pronouns and reflexives in French

	ACC pronouns	DAT pronouns	ACC/DAT reflexives
1SG	me (m’)	me (m’)	me (m’)
2SG	te (t’)	te (t’)	te (t’)
3SG	le(M)/la(F) (l’)	lui	se (s’)
1PL	nous	nous	nous
2PL	vous	vous	vous
3PL	les	leur	se (s’)

Direct objects as well as indirect objects can be anaphorically bound using *se*, as illustrated in (6a), where *se* stands for the indirect object of the verb *écrit* ‘write’. As also evidenced in table 5.3, *se* does not have case morphology, unlike other 3rd person pronouns (6b), but like 1st and 2nd person pronouns (6c).

- (6) a. Charlotte_i **s'**_{i/*j} écrit une lettre chaque mois.
 Charlotte REFL write.PRS.3SG a letter each month
 'Charlotte_i writes a letter to herself_i every month.'
- b. Charlotte_i **lui**_{*i/j} écrit une lettre chaque mois.
 Charlotte 3SG.DAT write.PRS.3SG a letter each month
 'Charlotte writes a letter to him/her every month.'
- c. Charlotte_i **m'**_{*i/j} écrit une lettre chaque mois.
 Charlotte 1SG.DAT write.PRS.3SG a letter each month
 'Charlotte writes me a letter every month.'

As introduced in chapter 3, *se* is subject to the Person Case Constraint, like 1st and 2nd person pronouns. 1st and 2nd person, as well as 3rd person reflexive direct object clitics are disallowed in double object constructions, as opposed to 3rd person direct objects, as illustrated again below and recapitulated in the following table.

- (7) a. Il_i **le/*me/*te/*se**_i **lui** présente.
 3SG.NOM 3SG/1SG/2SG/3REFL.ACC 3SG.DAT introduce.PRS.3SG
 'He_i introduces him/me/you/himself_i to him/her.' *IO 3SG > DO 1/2/REFL SG
- b. Ils_i **les/*nous/*vous/*se**_i **leur** présentent.
 3PL.NOM 3PL/1PL/2PL/3REFL.ACC 3PL.DAT introduce.PRS.3PL
 'They_i introduce them/us/you(pl)/themselves_i to them.' *IO 3PL > DO 1/2/REFL PL

Table 5.2: PCC effects with 1st/2nd and reflexives in French

IO	DO	French
3	3	✓
3	1/2	✗
3	REFL	✗
1/2	3	✓
1/2	1/2	✗
1/2	REFL	✗
REFL	3	✓
REFL	1/2	✗
REFL	REFL	✗

Se thus patterns with 1st/2nd person rather than 3rd, despite being restricted to 3rd person antecedents. This pattern, found across other languages as well, formed the basis of the puzzle addressed in this thesis: what bring 1st/2nd person and reflexives together to

the exclusion of other 3rd person? In order to address this question and apply the analysis developed in chapter 4, I will first establish the syntactic properties and the structure of *se*-reflexive constructions.¹

5.2 The controversial status of *se*-reflexives

With regard to their morphology and their position, reflexive clitics are at first sight very similar to pronominal object clitics, as the minimal pair in (8) again shows: they are cliticized to the left of the finite verb and the reflexive and pronominal paradigms overlap for 1st/2nd person.

- (8) a. Elle_i **se**_{i/*j} voit dans le miroir.
 she 3REFL see.PRS.3SG in the mirror
 ‘She sees herself in the mirror.’ *Reflexive clitic*
- b. Elle_i **la**_{*i/j} voit par la fenêtre.
 she 3FSG.ACC see.PRS.3SG through the window
 ‘She sees her through the window.’ *Object clitic*

It would therefore be natural to assume that reflexive clitics are associated with an object position, like pronominal clitics. However, it has been argued, as early as [Kayne \(1969, 1975\)](#), that reflexive constructions do not fully pattern with transitive verbs, and that the clitic *se* is not like any pronominal clitic. Instead, *se*-reflexives seem to share some properties with intransitive constructions. It has therefore been claimed that *se*-reflexives are intransitive constructions themselves, granting *se* various non-argumental roles and properties. These arguments will be discussed in 5.2.1 and accounts of reflexives as intransitive constructions outlined in 5.2.2. However, in 5.2.3 I will demonstrate that these analyses suffer from empirical and theoretical weaknesses. Evidence will be introduced that suggests that the subject of *se*-reflexives is in fact an external argument, while the reflexive clitic bears structural accusative or dative case, suggesting that *se*-reflexives should rather be analyzed as transitive predicates. This section will then form the basis for a formal approach of *se*-reflexives which treats them as transitives.

5.2.1 *Se* does not pattern like other object clitics

Despite the superficial parallelism, *se* has a different distribution than other object clitics in several environments. Moreover, *se*-reflexive constructions appear to pattern with intransitive constructions on a number of counts, from their morphology to syntactic

¹This chapter focusses on the syntax of the reflexive clitic *se*. However, it should be noted that French has other ways of expressing reflexivity, among which the logophoric anaphor *soi* and possessive anaphor *son propre*, which are outside the scope of this dissertation (see [Charnavel 2017, 2018](#) and works cited therein).

restrictions in causatives, passives, raising constructions or adjectival complements. I will illustrate each of these points in turn.

The first class of observations comes from morphology. First, French (and Romance) reflexive morphology is shared by other types of predicates, such as middles (medio-passives), inchoatives/anticausatives and so-called inherent reflexives, which are all built using the clitic *se*.

- (9) a. Ces robes **se** sont vendu-es comme des petits pains.
 These dresses SE be.PRS.3PL sold.PTCP-FPL like ART little breads
 ‘These dresses sold very well.’ *Middle*
- b. La palissade **s’** est renversé-e.
 the fence SE be.PRS.3SG fipped.over.PTCP-FSG
 ‘The fence tipped over.’ *Inchoative (Sportiche 2014: 3)*
- c. Elle **s’** est évanoui-e.
 she SE be.PRS.3SG faint.PTCP-3SG
 ‘She fainted.’ *Inherent reflexive*

In these constructions, *se* can indeed hardly be analyzed as an anaphoric clitic or even as an argument, and it is unclear which would be its thematic role if it were. These constructions are usually analyzed as syntactically and semantically intransitive, i.e. they seem to have only one argument, as the English translations also highlight.

Constructions using *se*, including true *se*-reflexives, also have in common that they select the *être* ‘be’ auxiliary in analytic tenses, as can be observed in example (10) below for a true reflexive, and in examples (9) above for other constructions involving *se*. This is characteristic of other intransitive constructions such as passives and unaccusatives, while transitive/active constructions and unergative verbs select *avoir* ‘have’ as an auxiliary.

- (10) Elle **s’** est/***a** dénoncée à la police.
 3FSG.NOM 3REFL be.PRS.3SG/have.PRS.3SG denounce.PTCP to the police
 ‘She denounced herself to the police.’ *True reflexive*
- (11) a. Le juge l’ **a** mis en prison.
 The judge 3MSG.ACC have.PRS.3SG put.PTCP in prison
 ‘The judge put him in prison.’ *Active*
- b. Il **est** mis en prison.
 3MSG.NOM be.PRS.3SG put.PTCP in prison
 ‘He is put in prison.’ *Passive*
- (12) a. Il **a** dansé.
 he have.PRS.3SG danced.PTCP
 ‘He has danced.’ *Unergative*
- b. Il **est** parti.
 he be.PRS.3SG gone.PTCP
 ‘He has gone.’ *Unaccusative*

Although not all unaccusatives select *be* as an auxiliary (e.g. *brûler* ‘to burn’ takes *avoir* ‘have’), verbs that do have *être* ‘be’ as an auxiliary are always unaccusatives (as pointed out by Charnavel 2008). So reflexive morphology, i.e. the use of clitic *se* and *be* auxiliary selection, is shared by various types of intransitives in the language.

Finally, Sportiche (1998) notes that agreement patterns in reflexive constructions pattern with intransitive constructions rather than with transitive ones. While past participle agreement is optional with object clitics (13a), it is always obligatory with reflexives (13b), just as it is obligatory in passives (13c). I will come back to past participle agreement with reflexives in more detail in section 5.2.3.2.

- (13) a. Marie **les** a décrit (-es).
 Marie them has describe.PTCP-FPL
 ‘Marie described them.’ *Transitive*
- b. Marie **s’** est décrit *(-e).
 Marie 3REFL is describe.PTCP-FSG
 ‘Marie described herself.’ *Reflexive*
- c. Marie est décrit *(-e) par Paul.
 Marie is describe.PTCP-FSG by Paul
 ‘Marie is described by Paul.’ *Passive*

Additionally, several syntactic restrictions on the distribution of *se* also seem to be linked with intransitivity. First, *se*-reflexives have a different distribution than object clitics in causative constructions. (14a) and (14b) are simple examples of causatives of transitives, using the *faire* ‘make’ + infinitive construction. The causee *Paul*, i.e. the person who is made to wash, is introduced by the preposition *à*. This is true when the object or theme of *laver* is a DP like *Max* in (14a), or a clitic pronoun, like *le* in (14b).

- (14) a. Je ferai laver *Max_j* à **Paul_i**.
 I make.FUT.1SG wash Max to Paul
 ‘I will make Paul wash Max.’
- b. Je *le_j* ferai laver à **Paul_i**.
 I 3MSG.ACC make.FUT.1SG wash to Paul
 ‘I will make Paul wash him.’

This pattern changes when the theme is reflexive, and in particular when the theme is coreferent with the causee. First, the use of the preposition *à* to introduce the causee becomes ungrammatical, as (15) illustrates.

- (15) ?Je ferai *se_i* laver (*à) **Paul_i**.
 I make.FUT.1SG REFL wash to Paul
 ‘I will make Paul wash himself.’

Likewise, the preposition *à* is ungrammatical to introduce the causee of an intransitive

like *courir* ‘run’ in (16).

- (16) Je ferai courir (*à) Paul_i.
 I make.FUT.1SG run to Paul
 ‘I will make Paul run.’ (adapted from Reinhart and Siloni 2004: 162)

This has been taken as evidence that *se*-reflexives pattern like intransitive verbs. Second, the position of the reflexive clitic in (15) also differs from that of the object clitic in (14b): the latter climbs all the way to the left of causative *faire*, while the former may stay immediately adjacent to the main verb in the infinitive, constituting a further divide between normal transitives and reflexives. This and other properties of reflexive causatives will be discussed extensively in section 5.4.4, where a complete picture of the data will show that reflexives in fact do not pattern like intransitives in causatives.

Passive sentences are another context in which the parallelism between reflexive *se* and pronominal object clitics breaks down. When the direct object (*Jean*) of a ditransitive verb is passivized, as in (17a), the remaining indirect object, in this case *la police*, may be pronominalized using a clitic, as in (17b) where the 3rd person dative clitic *lui* is used. This is also possible with 1st and 2nd person indirect objects, as exemplified by (17c). In contrast, cliticization of a reflexive indirect object is impossible here, which is unexpected if *se* is in all respects equal to a clitic pronoun. Instead, the strong reflexive pronoun *lui-même* has to be used, as shown in (17e).

- (17) a. Jean sera livré **à la police** (par Marie).
 Jean be.FUT.3SG delivered to the police by Marie
 ‘Jean will be delivered to the police by Marie.’
 b. Jean **lui** sera livré (par Marie).
 Jean 3SG.DAT be.FUT.3SG delivered by Marie
 ‘Jean will be delivered to them by Marie.’
 c. Jean **vous/nous** sera livré (par Marie).
 Jean 2PL/1PL.DAT be.FUT.3SG delivered by Marie
 ‘Jean will be delivered to you by Marie.’
 d. *Jean_i **se**_i sera livré (par Marie).
 Jean 3REFL be.FUT.3SG delivered by Marie
 Int: ‘Jean will be delivered to himself by Marie.’
 e. Jean sera livré **à lui-même** (par Marie)
 Jean be.FUT.3SG delivered to himself by Marie
 ‘Jean will be delivered to himself by Marie.’

The incompatibility of *se* with passives has been paralleled with the impossibility of intransitive verbs like *arriver* ‘to arrive’ to passivize.

- (18) *Jean a été arrivé.
 Jean have.PRS.3SG be.PTCP arrive.PTCP

Int: ‘Jean was arrived.’

The ungrammaticality of (18) has been attributed to the lack of an external argument in unaccusatives. Indeed, passivization being a valency-reducing operation targeting the external argument, it is expected to be impossible with verbs that lack one. Based on the other intransitive-like properties of *se*-reflexives, their ungrammaticality in passives is attributed to an alleged lack of external argument, putting them in the same class as (unaccusative) intransitives and explaining their similarity (Bouchard 1984; Grimshaw 1990; Kayne 1988; Sportiche 1998). Seemingly corroborating this hypothesis, *se*-reflexives are disallowed in other constructions lacking an external argument, such as raising constructions, whose lack of an external argument requires the embedded subject to raise the position of matrix subject.

- (19) *Jean_i se_i semble [_{*t*}_{*Jean*} malade].
 Jean 3REFL seems sick
 Int: ‘Jean_i seems to himself_i to be sick.’ Raising (Charnavel, Adani, & Hyams 2009: 6)

The differences between *se* and other object clitics have been taken to indicate that the status of *se* is not that of any object clitic, despite initial similarities. The conclusion already reached by Kayne (1969, 1975) is that reflexive *se* is not derived through the same steps as other object clitics. Instead, the facts seem to converge towards the conclusion that *se*-reflexives, which share the morphology and the distributional properties of unaccusatives and other constructions lacking an external argument, are themselves intransitives. Based on these facts, many syntactic analyses of *se*-reflexives have analyzed them as intransitive constructions. These accounts are discussed and critiqued in the next subsection.

5.2.2 *Se*-reflexives as intransitives?

The properties of *se* described in the previous section have lead an influential family of approaches to French and Romance *se*-reflexives to argue that they are syntactically intransitive constructions. These accounts often go hand in hand with valency-reducing semantics for *se*-reflexives. Under such analyses, reflexives are derived by a detransitivization operation, namely a function that takes a two-place relation (i.e. a bivalent predicate), identifies the two arguments, and returns a one-place predicate. The result is a semantically intransitive predicate with only one argument, which is taken to correlate with an intransitive predicate in syntax. The present chapter is primarily concerned with the featural content of *se*, hence its syntactic status. It is therefore essential to establish whether *se* should indeed be considered as a pronominal argument of a transitive construction or rather a non-argumental clitic part of an intransitive construction,

as valency-reducing approaches would have it. Although a variety of precise semantic formulations have been proposed for *se*-reflexives under the umbrella of valency-reducing operations, only their syntactic ramifications are under investigation here. Note that there are of course many semantic approaches to reflexivity other than valency-reducing. However, the latter have been particularly influential in studies of *se*-reflexives, fueled by their intransitive-like syntactic properties. The salience of these accounts within the field of Romance reflexivity warrants their discussion here.

Let me first clarify what is understood by syntactic transitivity and intransitivity. A transitive predicate is one that has both a syntactically realized external argument and a syntactically realized internal argument, which are available for syntactic operations. By virtue of the θ (theta)-Criterion (20) and the Case Filter (21), it therefore has (at least) two θ -roles, and can assign case to each of them. Conversely, an intransitive predicate only has one realized argument (the external or the internal argument), and only one θ -role and one case to assign.²

(20) *The θ -Criterion*

Each argument bears one and only one θ -role, and each θ -role is assigned to one and only one argument. (Chomsky 1981: 36)

(21) *The Case Filter*

Every phonetically realised DP must be assigned abstract Case. (Chomsky 1986: 74)

Burzio's generalization (Burzio 1986) also provides us with a useful diagnostic for transitivity.

(22) *Burzio's Generalization*

All and only the verbs that can assign a θ -role to the subject (=external argument) can assign accusative case to an object. (Burzio 1986: 178)

Given (22), if a verb assigns accusative case (to its object/internal argument), then it must also have an external argument. Both the accusative case-marked internal argument and the external argument must bear a θ -role as per (20), making the verb a transitive one. Consequently, if reflexive constructions are intransitive, they should only be able to assign one θ -role and one case (nominative). Realizing more than one argument should be impossible as this would violate both the θ -Criterion (that second argument would lack a θ -role) and the Case Filter (it would lack case too).

That *se*-reflexives are syntactically intransitive in the sense defined above is the position held by many valency-reducing approaches to *se*-reflexives, although not all of them

²Although see e.g. Ramchand (2008) for a critical argument against the θ -Criterion.

make similar syntactic claims. To be more precise, detransitivization accounts are split over two major issues:

1. *Timing*: whether the valency-reducing operation takes place in the lexicon (before syntax), in syntax or at LF (after syntax).
2. *Unaccusativity vs unergativity*: whether reflexives are unaccusatives (only have an internal argument) *vs* unergatives (only have an external argument).

Analyses first diverge as to the timing of the valency-reduction operation, i.e. as to when detransitivization takes place, with different consequences for the syntax of *se-reflexives*. Three options are considered: in the lexicon, in syntax, or at LF. At one end of the scale, if valency-reduction takes place in the lexicon, the verb enters the numeration with only θ -role and one argument, and remains intransitive throughout the syntactic and semantic derivation. At the other end, if valency-reduction happens at LF, when the predicate enters the syntactic derivation it has two arguments and two θ -roles. Only at LF does one of the two arguments get absorbed or reduced and the predicate detransitivized. In this case, the predicate is transitive throughout syntax, in the above-detailed sense. Finally, intermediate positions have detransitivization happen in syntax itself. The verb enters the derivation with two arguments and two θ -roles, but one argument fails to be realized (e.g. because it is not assigned case), rendering the predicate intransitive in syntax. For lexical and syntactic approaches to valency-reduction, reflexives are thus syntactically intransitive while for LF approaches they may be syntactically transitive. If they are syntactically intransitive, the question arises whether they belong to the class of unaccusative or unergative predicates, i.e. whether their only realized argument is an internal argument (unaccusatives) or an external argument (unergatives). This constitutes the second divide in analyses of Romance reflexives, as there seems to be arguments for both claims.

I will first consider the first divide, and show that *se-reflexives* cannot be derived in the lexicon and must instead be the result of a syntactic or an LF operation. I will then discuss the consequences of such existing approaches for the syntactic transitivity of *se-reflexives*. Finally, I will turn to the unaccusative-unergative debate, showing that despite the data reviewed in 5.2.1, there is evidence for the subject of *se-reflexives* to be treated as an external argument, a fact that is compatible with an ergative analysis of *se-reflexives*, but also with a transitive one.

5.2.2.1 Reflexivization is not lexical

Let us first consider the first divide more closely, namely the issue of timing. A number of approaches have argued for a valency-reducing operation that takes place in the lexicon (Bouchard 1984; Chierchia 2004; Grimshaw 1990; Marantz 1984; Wehrli 1986, among

others). As laid out earlier, this means that a reflexive verb enters syntax with only one argument and θ -role (the other one having been reduced in the lexicon), hence as a one-place, intransitive predicate. The only argument gets realized as the subject, leaving *se* with a non-argumental status, i.e. without a θ -role and without case. *Se* gets treated as a marker of lexical reflexivization (Grimshaw 1982), a lexical operator or a Voice head Labelle (2008).

A strong piece of evidence against a lexical approach of *se* is its availability in ECM constructions, as argued by Reinhart and Siloni (2004, 2005) (based on an original argument from Marantz 1984). In the ECM construction below, the verb *considérer* does not take a DP as its internal argument, but rather a small clause. The DP *Max* is not the internal argument of the matrix predicate *considère*, although it assigns accusative case to it. Rather, *Max* receives its θ -role from the adjective *intelligent*. As it is not an argument of the verb *considère* and does not belong to this verb's θ -grid, a lexical operation on the argument structure of the verb could in principle not affect it.

- (23) a. Jean_i considère [Max_j intelligent].
 Jean considers Max_j intelligent.
 ‘Jean_i considers Max_j intelligent.’
 b. Jean_i se_i considère [_{se} intelligent].
 Jean REFL considers intelligent.
 ‘Jean_i considers himself_i intelligent.’

Yet, the embedded subject can be made reflexive and corefer with the main subject *Jean*, although it is not its coargument. This shows that reflexivization cannot be a lexical operation affecting the argument structure of a given predicate in the lexicon. Instead, these facts suggest that reflexivization should be a syntactic or post-syntactic phenomena, which composes with DPs in syntax.

Another argument against a lexical approach to valency-reduction is the behavior of *se*-reflexives in causatives (and specifically, *faire-par* (FP) causatives – see 5.4.4 for detailed discussion). Roughly speaking, FP causatives are composed of two syntactically independent verbs, causative *laisser* ‘to let’ or *faire* ‘to make’, and a lexical verb in the infinitive (*berner* ‘to deceive’ and *faire* ‘to make’ in examples (25) and (26) below). The causee is introduced by the preposition *par*. Their structure is roughly schematized in (24b) below (after Folli and Harley 2007).

- (24) a. Marie_{EA} fait embrasser Charles_{theme} par Paul_{causee}.
 Marie make.PRS.3SG kiss.INF Charles by Paul
 ‘Marie makes Paul kiss Charles.’ *Faire-par causative*
 b. [vP DP_{EA} faire_{CAUS} [vP ... V_{INF} DP_{theme} [PP par DP_{causee}]]]

The higher causative *v* selects an external argument, and takes the lower vP as its com-

plement. The lower vP has a theme argument, and selects an optional PP by-phrase to express the causee. In reflexive FP causatives, as (25) and (26), none of the verbs can be said to be lexically reflexive, in that coreference does not obtain between their respective co-arguments. Instead, coreference obtains between the external argument of causative *laisser* or *faire* on the one hand, and the direct or indirect object of the embedded infinitive (the theme or causee). In (25) the subject of *laisser* corefers with the direct object of *berner*, while in (26) the subject of causative *faire* corefers with the indirect object of infinitive *faire*.

- (25) Les citoyens_i **se**_i sont tous très souvent laissé bêtement [_{VP}
the citizens REFL AUX.3PL all very often let.PTCP stupidly
berner _{t_{se}} par le maire].
deceive.INF by the mayor
'The citizens_i very often let themselves_i all stupidly be deceived by the mayor.'
- (26) Luc_i **se**_i fait rarement [_{VP} faire un complet neuf _{t_{se}} par M.
Luc REFL make.3SG rarely make.INF a suit new by Mr.
Dupont].
Dupont
'Luc_i rarely has a new suit made for him_i by Mr. Dupont.' (Labelle 2008: 850)

Again, a lexical operation would be expected to affect the argument structure of a given predicate, and not allow reflexivization between arguments of distinct predicates, indicating that reflexivization is a syntactic or post-syntactic process.

5.2.2.2 Transitivity in existing post-syntactic and syntactic approaches

The other side of the debate considers valency-reduction to be a syntactic or an LF phenomenon (Kayne 1988; Reinhart & Siloni 2004, 2005; Sportiche 1998). In such analyses, the verb enters the numeration as transitive, i.e. with two θ -roles, which later get assigned to only one argument. If valency-reduction is an LF process, *se-reflexives* are thus expected to be syntactically transitive, since two θ -roles should be present until Spell-out. Given the Y-model, semantic transitivity should indeed correlate with syntactic transitivity. In other words, semantic operations realized over two arguments should entail the presence of two arguments in the syntax.³

Syntactic analyses on the other hand make mixed assumptions. Reinhart and Siloni (2004, 2005) propose that although a reflexive predicate enters the numeration with two θ -roles, it realizes only one argument. The reason is that *se* is a Case-absorber: it absorbs, i.e. suppresses the ability of the predicate to assign case to the internal argument

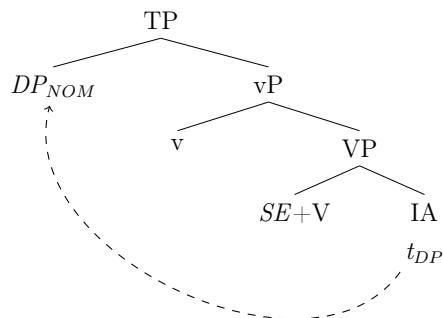
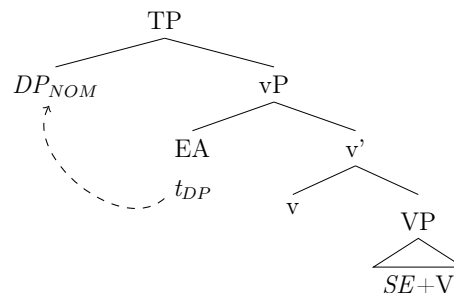
³Although theoretically, one could posit an LF process of transitivization, which would take a syntactically intransitive predicate and increase its valency, in practice, taking something in the syntax that is not an argument and turning it into one at LF is difficult to implement, and would additionally constitute a violation of the θ -criterion.

(possibly in the lexicon). Since only one DP can be realized in syntax due to the Case Filter, thematic reduction is forced to apply at LF, i.e. both theta-roles are assigned to a single argument (θ -bundling). Although θ -bundling is an LF operation, in practice, case reduction makes *se*-reflexives syntactically intransitive as well: only one case is assigned and only one argument is realized. *Se* is not an argument, as it does not have case, and does not end up with a θ -role. A similar type of account is found in Labelle (2008), who, although she does not adopt valency-reducing semantics, draws inconsistent conclusions as to the transitivity of *se*-reflexives. In her account, *se* is a Voice head, which introduces the subject as the external argument and identifies it with an unsaturated internal argument. *Se* is crucially not the internal argument itself. For Labelle (2008), *se*-reflexives are semantically transitive; in syntax, they are transitive when the internal argument is saturated by *pro-même*, and intransitive when not. *Se*, despite being a Voice head, nevertheless bears an (uninterpretable, unvalued) case feature, which is checked in syntax via Agree with the case assigning functional head.

Both accounts are similarly flawed, in that semantic transitivity is not matched by syntactic transitivity. Furthermore, the status given to *se* is inconsistent: in Reinhart and Siloni, it has a θ -role but no case, while for Labelle, it has case but no θ -role, while for neither of them it is an argument. Case seems to be the sticking point in both accounts, the reason for which will be addressed in section 5.2.3. Any syntactic or post-syntactic approaches to valency-reduction therefore predict that reflexives should be syntactically transitive. While this does not necessarily entail that *se* is one of the two arguments, a close inspection of the features of *se* will reveal that it has case and φ -features, properties which are consistent with an argumental status, pace accounts like Reinhart and Siloni (2004, 2005) and Labelle (2008).

5.2.2.3 The subject of *se*-reflexives is an external argument

The second divide within analyses of *se*-reflexives as intransitives pertains to whether they are unaccusative or unergative constructions. Under the unaccusative approach, the surface subject of a reflexive is the underlying object, and the reflexive morphology absorbs or stands for the external argument, as depicted in (27) (Embick 2004; Grimshaw 1990; Kayne 1988; Marantz 1984; Sportiche 1998). Under the unergative approach, the reduction operation targets the internal argument (Chierchia 2004; Grimshaw 1982; Reinhart & Siloni 2004, 2005; Wehrli 1986). In this view, the subject is generated as the external argument and there is no internal argument, as shown in (28). Note that representatives of both of the lexical approach and syntactic/LF approach are found within this line of analyses.

(27) *Unaccusative*(28) *Unergative*

(adapted from Alboiu, Barrie, and Frigeni 2004: 4)

This debate might in some respects seem secondary. However, it makes syntactic claims of its own: should the subject of reflexives be considered as an external argument or a derived subject? The former hypothesis would indeed also be compatible with a transitive analysis of *se*-reflexives.

As observed in section 5.2.1, *se* reflexives share morphological and syntactic properties with verbs lacking an external argument. Like unaccusative verbs, they make use of the clitic *se* and select the *be* auxiliary. Furthermore, they fail to passivize and are ungrammatical in raising constructions, two operations that affect valency by targeting the external argument. These facts have been taken to suggest that reflexive constructions lack an external argument and should be considered as unaccusative predicates.

However, there is evidence that the subject of reflexives does not behave like internal arguments as would be expected of subjects of unaccusatives, but rather patterns like external arguments, consistent with an unergative or transitive approach. For instance, the availability of expletive insertion is an effective test to discriminate between external and internal arguments, since expletive insertion is usually associated with internal arguments. For instance, it is possible with unaccusative verbs (29a) but not with unergatives (29b). According to judgements reported in the literature, *se*-reflexives seem partially degraded in such constructions. As pointed out by Alboiu et al. (2004), Labelle (2008: 870) and Charnavel et al. (2009: fn.1), this mixed judgement is actually the result of the potential ambiguity of the construction. (29c) can be successfully interpreted with a passive or middle reading. However, it is ungrammatical under a ‘pure’ reflexive reading, suggesting that in true reflexives the inverted subject *beaucoup d’enfants* ‘many children’ patterns like an external argument rather than an internal argument, since it is incompatible with expletive insertion.⁴

⁴A similar argument is often made based on the availability of *en*-cliticization in unaccusatives vs its ungrammaticality in unergatives and reflexives (Charnavel et al. 2009; Reinhart & Siloni 2004). However, since *en*-cliticization requires subject inversion and the insertion of an expletive subject it ultimately boils down to the possibility availability of expletive insertion, which is why it is not reported here.

- (29) a. Il est arrivé beaucoup d'enfants.
EXPL is arrived many of children
'Many children arrived.' *Unaccusative*
- b. *Il a souri beaucoup d'enfants.
EXPL has smiled many of children
'Many children smiled.' *Unergative*
- c. Il s'est lavé beaucoup d'enfants.
EXPL SE is washed many of children
✓ 'Many children were washed.' *Passive/middle*
* 'Many children washed themselves.' *Reflexive*

Note that this furthermore debunks the argument, originally made by Kayne (1975) and reported by Reinhart and Siloni (2004), that reflexives do not pattern like transitives in impersonal constructions. Impersonal constructions are unavailable with *se* under a true reflexive reading (30b), just as they are unavailable in transitive constructions (30a), and with unergatives. They are however possible with *se* under a medio-passive reading, as also shown in (30b).

- (30) a. *Il les_i a dénoncés t_i trois mille hommes ce mois-ci.
EXPL them has denounced three thousand men this month-here
'Three thousands men denounced themselves this month.'
- b. Il s' est dénoncé trois mille hommes ce mois-ci.
EXPL SE is denounced three thousand men this month-here
✓ 'Three thousand men were denounced this month' *Passive/middle*
* 'Three thousand men denounced themselves this month.' *Reflexive*
(Reinhart & Siloni 2004: 161)

Such evidence shows that the subject of reflexive constructions patterns like an external argument, unlike in other constructions involving *se* (like middles) where it patterns like an internal argument. This finding weakens the claim that *se*-reflexives are intransitive. If their subject is an external argument, *se*-reflexives could indeed be ergative intransitives, but also transitive constructions.

Overall, this section has analyzed and challenged the claims made by approaches of *se*-reflexives as intransitives. It has first shown that *se* reflexives cannot be derived by a valency-reducing operation taking place in the lexicon, and must instead be the result of a syntactic or an LF operation. Syntactic accounts of valency-reduction have in turn been shown to make paradoxical assumptions and predictions, which the following section will show cannot be accommodated by the data. Finally, if reflexivization is an LF process, it predicts that reflexives should be syntactically transitive. Furthermore, some data suggests that the subject of reflexives patterns like an external argument, pointing against an unaccusative analysis and towards a transitive or unergative analysis. The next section aims at providing evidence for the argumental status of *se* and for the transitivity

of French reflexives.

5.2.3 *Se* has case

This section will focus on the case and agreement properties of the reflexive clitic *se*, which support the hypothesis that *se* is indeed a reflexive anaphor and the internal argument of a transitive predicate. In particular, I will show that *se* bears accusative or dative case, a fact that is characteristic of transitive predicates. As introduced previously, Burzio's generalization (see (22) above) predicts that only a verb with an external argument (i.e. a transitive predicate) can assign accusative case to its object. Showing that *se* has case represents a strong argument in favor of a transitive approach to *se*-reflexives, and against approaches to reflexivization in terms of syntactic valency-reduction or case-absorption such as Reinhart and Siloni (2004, 2005). This section will show that *se* shows case-discriminating behavior in several syntactic contexts. First, it will be shown in 5.2.3.1 that *se* can only surface in contexts where a dative or accusative argument would surface, i.e. it needs to be assigned structural case. Section 5.2.3.2 will discuss the behavior of *se* with regard to past participle agreement, showing that agreement patterns with reflexives can only be accounted for by assuming case on *se*.

5.2.3.1 *Se* is restricted to accusative and dative arguments

As observed previously, *se* can be employed to reflexivize the direct object or the indirect object of a transitive verb.

- (31) a. Charlotte_i **se**_i présente au président.
 Charlotte 3REFL introduce.PRS.3SG to.the president
 'Charlotte_i introduces herself_i to the president.' *Direct object se*
- b. Charlotte_i **s'**_i écrit une lettre chaque mois.
 Charlotte 3REFL write.PRS.3SG a letter each month
 'Charlotte_i writes a letter to herself_i every month.' *Indirect object se*

While *se* itself morphologically case-invariant, the indirect object that *se* replaces is otherwise morphologically dative, as evidenced by the minimal pair in (32).

- (32) a. Lucie_i **s'**_i est remis le prix.
 Lucie.NOM REFL be.PRS.3SG give.PTCP the prize.ACC
 'Lucy_i gave herself_i the prize.'
- b. Lucie_i **lui**_j a remis le prix.
 Lucie.NOM 3SG.DAT have.PRS.3SG give.PTCP the prize.ACC
 'Lucy_i gave him/her_j the prize.'

Indirect object *se* gets interpreted in the same way as overtly dative forms, i.e. as a goal.

The fact that case morphology is not visible on *se* is not very surprising: there is a large amount of syncretism in the French pronominal paradigm. 1st and 2nd person singular and plural object pronouns are systematically syncretic for case, and are generally taken to have case nonetheless. In addition, 1st and 2nd person reflexives are morphologically indistinguishable from 1st and 2nd person pronouns. It would therefore be inconsistent to postulate case-bearing pronouns, but not case-bearing reflexives, given that their paradigm is largely identical. If *se*, and its 1st and 2nd person counterparts *me/te/nous/vous*, are arguments similar to pronominal clitics, they are therefore expected to bear case.

Table 5.3: Paradigm of object clitic pronouns and reflexives in French

	ACC pronouns	DAT pronouns	ACC/DAT reflexives
1SG	me (m')	me (m')	me (m')
2SG	te (t')	te (t')	te (t')
3SG	le(M)/la(F) (l')	lui	se (s')
1PL	nous	nous	nous
2PL	vous	vous	vous
3PL	les	leur	se (s')

Corroborating this expectation, Labelle (2008) makes the crucial observation that *se* can only surface when the reflexivized argument would bear structural accusative or dative case, suggesting that *se*, like other weak pronominals, needs to be case-licensed. In contrast, the use of *se* is illicit when it would get assigned a lexical case different from accusative or dative, such as partitive (33) or locative (34). In (33), the predicate *avoir peur* ‘to be afraid’ takes a partitive complement, introduced by the preposition *de* ‘of’. This partitive complement can be pronominalized using *en*, the partitive pronoun. However reflexivization of the partitive complement using *se* is not possible, and in that case the strong reflexive pronoun *lui-même* introduced by the preposition *de* is used. The same facts occur with locative complements, introduced by the preposition *à* and pronominalized by *y* (see Déchaine and Wiltschko (2017: 74-77) for more data).

- (33) a. Luc a peur **de son voisin**.
 Luc has fear of his neighbour
 ‘Luc is afraid of his neighbour.’
 b. Luc **en** a peur.
 Luc PTV has fear
 ‘Luc is afraid of him.’
 c. *Luc **s’** a peur.
 Luc REFL has fear
 Int: ‘Luc is afraid of himself.’

- d. Luc a peur **de lui-même**.
 Luc has fear of himself
 ‘Luc is afraid of himself.’
- (34) a. Luc pense **à sa famille**.
 Luc thinks of his family
 ‘Luc thinks about his family.’
- b. Luc **y** pense.
 Luc LOC thinks
 ‘Luc thinks about it.’
- c. *Luc **se** pense.
 Luc REFL thinks
 Int: ‘Luc thinks about himself.’
- d. Luc pense **à lui-même**.
 Luc thinks of himself
 ‘Luc thinks about himself.’ (Labelle 2008: 839)

If *se* can only replace accusative and dative complements, this suggests that it itself bears accusative and dative case, and is subject to a structural case requirement, providing a first piece of evidence for the case-bearing argument status of *se*.

5.2.3.2 *Se-reflexives and past participle agreement*

Additionally, accusative and dative reflexives show differential behavior with regard to past participle agreement. To see how this sheds light on the status of *se*, let us look closer at the system of past participle agreement in French.

French is a nominative-accusative language with subject agreement. Finite verbs and auxiliaries agree in person and number with their nominative subjects.

- (35) a. **Je** mang[e] une pomme.
 1SG.NOM eat.PRS.1SG an apple
 ‘I eat an apple.’
- b. **Nous** mang[eons] une pomme.
 1PL.NOM eat.PRS.1PL an apple.
 ‘We eat an apple.’

It also has a form of object agreement. Analytic tenses, such as *passé composé* or pluperfect, are built of a tensed auxiliary and a past participle which may be inflected. The tensed auxiliaries agree in person and number with the subject. Past participles agree with the direct object in number and gender, on the condition that it precedes the verb, and inflect according to the paradigm in table 5.4.

As (36a) illustrates, there is no agreement of the participle with an in-situ/postverbal object: the participle is realized with the default singular masculine ending, corresponding to a null morpheme. Covarying φ -agreement with a postverbal object is ungrammatical.

Table 5.4: Past participle agreement paradigm in French (*décrire* ‘to describe’)

	M	F
SG	décrit- \emptyset	décrit- e
PL	décrit- s	décrit- es

- (36) a. Jean a décrit $\boxed{-\emptyset/*-e}$ Marie.
 Jean.NOM have..AUX.PRS.3SG describe.PTCP-MSG/*FSG Marie.ACC.
 ‘Jean has described Marie.’
- b. J’ ai peint $\boxed{-\emptyset/*-s}$ ces tableaux.
 1SG.NOM have.AUX.PRS.1SG paint.PTCP-MSG/*MPL these paintings.ACC
 ‘I have painted these paintings.’

The most canonical case of preverbal objects are pronominal, cliticized objects, which as seen above must occur at the left of the finite verb. Past participles agree in number and gender with accusative clitics, as in (37). This agreement is optional in modern spoken French for a number of speakers, albeit always possible.

- (37) a. Les allemands **les** ont détruit $\boxed{-es}$ (les
 the germans 3(F)PL.ACC have.AUX.PRS.3PL destroy.PTCP-FPL the
 églises).
 churches.F.PL
 ‘The germans destroyed them (the churches).’
- b. Elle **t’** a décrit $\boxed{-e}$ comme une
 3SG.NOM 2(F)SG.ACC have.AUX.PRS.3SG describe.PTCP-FSG like a
 groupie.
 groupie
 ‘She described you as a groupie.’ (to a female addressee)

Past participle agreement (henceforth PPA) is case-sensitive. Participles do not agree with preverbal dative clitics, and agreement yields sharp ungrammaticality, as illustrated by (38).

- (38) a. Tu **nous** as écrit $\boxed{-\emptyset/*-s}$.
 2SG.NOM 1PL.DAT have.AUX.PRS.2SG written.PTCP-MSG/*MPL
 ‘You have written to us.’
- b. Il **leur** a dit $\boxed{-\emptyset/*-es}$ toute la
 3MSG.NOM 3(F)PL.DAT have.AUX.PRS.3SG say.PTCP-MSG/*FPL all the
 vérité, aux inspectrices.
 truth to.the inspectors.F
 ‘He told them all the truth, to the (female) inspectors.’

As is cross-linguistically commonly the case, dative case-marked arguments are inaccessible for φ -agreement. Note that although gender or case distinctions are not always visible on pronouns, PPA is sensitive to these distinctions, suggesting that they are present as features although not overt (see section ?? for discussion).

Agreeing preverbal objects also include moved objects, such as derived nominative subjects of passives or unaccusatives, which may trigger agreement.

- (39) **Marie** est décrit[-e] par Jean.
 Marie.NOM be.AUX.PRS.3SG describe.PTCP-FSG by Jean.
 ‘Marie is described by Jean.’ *Passive*
- (40) **Les fille-s** sont arrivé[-es].
 the.PL girl.F-PL are arrived-FPL
 ‘The girls have arrived’ *Unaccusative*

Finally, participles also agree with moved *wh*-objects, as in relatives (41) or *wh*-questions (42).

- (41) **Les lettre-s** que j’ ai écrit[-es]
 the.PL letter.F-PL that I have write.PTCP-FPL
 ‘the letters that I have written’ (Nguyen 2014: 15)
- (42) **Combien de faute-s** a-t-elle fait[-es] ?
 how.many of mistake.F-PL has-she make.PTCP-FPL
 ‘How many mistakes has she made?’ (Nguyen 2014: 42)

I assume object clitics to be generated as verbal complements and to move up to their clitic position, effectively unifying the class of agreeing arguments as moved objects. This assumption, however, has only little bearing on the treatment of past participle agreement below.

Agreeing arguments must thus be (i) accessible in terms of case (accusative or nominative) and (ii) be in preverbal position. PPA facts with reflexives can thus be enlightening as to the status and featural content of the clitic *se*. We have observed already that past participles agree in number and gender in the presence of an accusative reflexive.

- (43) Elle_i s’_i est décrit-e comme timide.
 She 3REFL be.AUX.PRS.3SG describe.PTCP-FSG as shy
 ‘She_i described herself_i as shy.’

This is, however, not very telling: intransitive accounts of *se-reflexives* can easily deal with these facts by arguing that *se* is not an argument and hence does not have any features, and that the participle agrees with the subject like it does in passives or unaccusatives. The facts that arise with dative reflexives are more interesting, because they cannot be straightforwardly dealt with by such accounts. In French, PPA is blocked in the presence

of an indirect object *se*.

- (44) Lucie_i s'_i est remis -ø/*e le prix.
 Lucie.NOM 3REFL.DAT be.AUX.PRS.3SG give.PTCP-MSG/*FSG the prize.ACC
 'Lucy_i gave herself_i the prize.'

This is quite unexpected under accounts in which *se* is not pronominal or argumental. The fact that a direct object *se* allows PPA but an indirect object *se* does not shows that the agreeing probe in *v* is able to discriminate between the two kinds of *se*. As observed above with dative pronominal clitics, PPA is sensitive to case: it may only agree with items bearing accessible cases like accusative. The contrastive absence of PPA with dative reflexives is a strong indication that *se* in fact bears case. The parallelism between PPA with reflexive and pronominal clitics summed up in table 5.5 gets explained straightforwardly once one recognizes that *se* has case.

Table 5.5: Past participle agreement with clitics in French

	PRONOUNS	REFLEXIVES
ACCUSATIVE	yes	yes
DATIVE	no	no

5.2.3.3 *Se* obeys the PCC

Finally, a last argument supporting the hypothesis that *se* bears case is its behavior with regard to the PCC. As noted previously, direct object *se* is subject to PCC effects, in the same way as direct object 1st and 2nd person pronouns. As discussed at length in chapter 3, PCC effects are construed as resulting from an intervention effect in a structural configuration where there are two arguments, differentiated by their case and their structural position. Only accusative arguments seem to require licensing, while only dative ones intervene due to their case. Applying this reasoning to the case of *se*, the very fact that direct object *se* displays PCC effects, like other pronouns, constitutes evidence in favor of its argumenthood. Furthermore, it can also be observed that indirect object *se* intervenes for the licensing of 1st and 2nd person direct objects, as illustrated below.

- (45) a. *Il se me/te décrit.
 3SG.NOM 3REFL.DAT 1SG/2SG.ACC describe.PRS.3SG
 'He describes me/you to himself.' *REFL IO > 1/2 DO
- b. Il se la décrit.
 3SG.NOM 3REFL.DAT 3FSG.ACC describe.PRS.3SG
 'He describes her to himself.' REFL IO > 3 DO

Se, when interpreted like the indirect object, intervenes for person licensing. Given the definition of intervention and relativized minimality given in chapter 2, intervention effects are only expected of elements that themselves bear feature attributes that match those on the agreeing elements, i.e. the DO and *v*. Assuming as I have that the relevant features for person licensing are [ID]-features, and [ID]-features occur predominantly on nominals (aside of a functional head like *v*, which is ruled out as an intervener here, being itself the licenser), the behavior of IO *se* is not expected if it is not a nominal argument. Furthermore, these facts strongly suggest that indirect object *se* bears dative case, the common feature of PCC interveners.

Concluding, I have presented several pieces of evidence to argue that *se* bears structural accusative or dative case. Given Burzio's generalization, this should be taken as evidence that *se*-reflexives are transitive constructions, whose internal argument is the reflexive clitic *se* and the external argument the subject. A syntactic analysis of past participle agreement with *se*-reflexives will be proposed in section ??.

Overall, this section has addressed the long-standing debate regarding the (in)transitivity of French reflexives and shown that an intransitive approach cannot be sustained and that there is evidence to treat *se*-reflexives as transitives. In 5.2.1 I first showed that *se* does not pattern like other object clitics in a number of environments, but seem to parallel intransitive constructions instead, a fact that prompted the analysis of reflexives as intransitives. Section 5.2.2 outlined the main features of these accounts, showing that there are grounds to question them: reflexivity as arity-reduction is not derived lexically, but rather in or after syntax, suggesting a transitive predicate in syntax, and the subject of reflexive constructions is an external argument, which is compatible with an unergative but also a transitive treatment of *se*-reflexives, but not, as predominantly argued, an unaccusative one. Finally, in 5.2.3, I introduced evidence that *se* is a pronominal argument, which bears structural accusative or dative case, leading to the conclusion that *se*-reflexives should be treated not as intransitives, but rather as transitive predicates. In the next section, I will provide a formal account of the structure of *se*-reflexive constructions in French.

5.3 The syntax of *se*-reflexives: the case for a reflexive voice

Given the conclusions reached in the preceding section, an adequate analysis of *se*-reflexives should allow for (i) reflexivity to be derived in syntax or post-syntactically, thus (ii) treating *se*-reflexives as syntactically transitive constructions. Furthermore, it should (iii) generate the subject as the external argument, and finally (iv) explain the intransitive-like distributional properties of *se*-reflexive constructions. This section will introduce a proposal based on Ahn (2015), who makes the case for a reflexive Voice, and

show that it meets all the above listed requirements. In 5.3.1, I will first consider in more detail a characteristic of French reflexives that has so far only been hinted on, namely their local subject-orientation. I will argue, following Ahn (2015), that this can steer us towards a structure headed by a reflexive voice head, and provide a detailed account thereof. Based on this, I will then show that [ID]-features can help us correctly derive the facts, showing how reflexive voice and [ID]-agreement contribute to the derivation of reflexivity. Finally in 5.3.3 I will show that this analysis allows us to account straightforwardly for the intransitive-like properties of *se* reflexives.

5.3.1 Local subject-orientation

One crucial property of *se* that is ignored by accounts of *se*-reflexives treating them as intransitive constructions, and in particular those in which *se* is viewed as a detransitivizer, is its local subject-orientation. Throughout the thesis, the label local subject-orientation refers to the observation that anaphors like *se* can only be bound by local external arguments that are in a syntactic position corresponding to the specifier of v. As such, it refers to the syntactic notions of external argumenthood and structural height (and not strictly of subjecthood, as I will show in 5.4.4). It should be distinguished from the use of subject-orientation when talking about perspectival anaphors, in languages such as Chinese or Tamil, which signals the fact that anaphors can only be bound by agents or experiencers, which are often subjects but can also be experiencer objects, and which crucially are also subject to a sentience/animacy condition and can be non-local (see e.g. Sundaresan 2012).

Unlike English anaphors, French *se* is a strictly local subject-oriented anaphor. In a ditransitive, *se* can only refer to the subject and not to any other argument, such as the indirect object. This is exemplified in (46a), where binding of direct object *se* by the indirect object yields ungrammaticality. Recall that despite the linear order of constituents in this sentence, direct objects are hierarchically lower than indirect objects in French, meaning that indirect object *Jean* would c-command direct object *se* before clitic-climbing and therefore constitute a potential antecedent.⁵

- (46) a. Marie_i se_i/_{*j}/_{*k} montre Jean_j.
 Marie 3REFL show.PRS.3SG Jean
 ‘Marie_i shows Jean_j to herself_i/_{*himself_i}.’
 b. Mary_i shows John_j to herself_i/himself_j/_{*k}.

When the antecedent is not the subject, French encodes reflexivity through different means (Ahn 2015). Next to *se*, French has a strong or emphatic anaphor *pro-même*, which is

⁵Cliticizing the IO here does not help us disambiguate, as it would yield a clitic combination banned by the PCC, namely **Marie se lui montre*.

morphologically composed of a strong pronoun (e.g. *moi/toi/lui/elle*) and the modifier *même* (literally ‘same’ or ‘even’). This strong form *pro-même* must be used to express identity between the indirect object and the direct object (47a). The use of *se* here, even in conjunction with *lui-même*, automatically yields a subject-oriented reading of the anaphor (47b).

- (47) a. Ben_i montre Jean_j à lui-même_{*i/j}.
 Ben shows Jean to himself
 ‘Ben_i shows Jean_j to himself_{*i/j}.’
 b. Ben_i *se*_{i/*j} montre Jean_j à lui-même_{i/*j}.
 Ben REFL shows Jean to himself
 ‘Ben_i shows Jean_j to himself_{i/*j}.’

As in (47b), (48) and (49) below, *pro-même* can be used to double the reflexive clitic *se*.

- (48) a. Le ministre **se** copie (lui-même).
 the deputy REFL copy.PRS.3SG himself
 ‘The deputy imitates himself.’
 b. *Le ministre copie lui-même.
 the deputy copy.PRS.3SG himself
 Int: ‘The deputy imitates himself.’
 (49) a. Le ministre **se** parle (à lui-même).
 the deputy REFL speak.PRS.3SG to himself
 ‘The deputy is talking to himself.’
 b. *Le ministre parle à lui-même.
 the deputy speak.PRS.3SG to himself
 Int: ‘The deputy is talking to himself.’ (Labelle 2008: 845)⁶

To yield the subject-oriented readings in (48) and (49), the presence of the reflexive clitic is obligatory. *Pro-même* on the other hand is only optional alongside *se*. The syntactic status of *lui-même* in such sentences is debatable, and shall be established further down the line (section 5.3.3).

Local subject-orientation can illuminate many of the restrictions on *se* that have been taken as evidence for its intransitive status. I will follow the argument of Ahn (2015: ch. 5), who demonstrates that local subject-orientation and many other properties of *se* (and other local subject-oriented anaphors cross-linguistically) are best accounted for by a reflexive Voice.

Previous approaches often resorted to movement to explain the subject-orientation of *se* (e.g. Kayne 1975). A prominent difference between *se* in (46a) and *lui-même* in (47a) is that *se* obligatorily appears in a position adjacent to the subject in the TP projection,

⁶My own judgement in the case of (49) is milder than what is reported by Labelle (2008). Omitting *se* in this sentence leads to degraded acceptability rather than full ungrammaticality.

whereas *lui-même* remains in-situ in the VP-domain. The fact that the anaphor *se* is bound by the subject is consequently attributed to movement of *se* close to the subject, and to normal locality conditions on binding. There is indeed evidence supporting the claim that *se* moves. *Se* is for instance sensitive to island effects. The sentence in (50a), in which the anaphor is licensed in a complex NP island that excludes the clause's subject, is ungrammatical.

- (50) a. **Lucie_i s'_i* est compté(-e) cinq [ISLAND filles
 Lucie 3REFL be.AUX.PRS.3SG count.PTCP-FSG five girls
 en dehors (de)].
 outside of
 Int: 'Lucie_i counted five girls outside of herself_i.'
- b. *Lucie_i a* compté cinq [ISLAND filles en dehors d'
 Lucie have.AUX.PRS.3SG count.PTCP-MSG five girls outside of
elle-même_i].
 herself
 'Lucie_i counted five girls outside of herself_i.' (Ahn 2015:213)

Such types of islands effects with *se* indicate that *se* is indeed subject to movement. Note that this implies that *se* originates in a lower position below V, which would be expected if *se* originates as the complement of the verb. While the observation that *se* moves seems to be correct, it is not enough to explain its subject-orientation. One problem with what Ahn (2015) calls the 'reductionist' movement approach is the timing of operations. From the above, it seems that *se* can only bind subjects after it has moved to the TP domain, resulting in the following order of operations: movement must precede binding. However, there is also evidence to the contrary, making a movement-only approach to subject orientation untenable.

While *se* can only be bound by subjects, it is not the case that all subjects can bind *se*. This has been observed already previously, where *se* was shown to be impossible in constructions with derived or raised subjects, as in passives or raising constructions.

- (51) **Marie_i s'_i* est été décrite.
 Marie 3REFL is been described
 Int: 'Marie_i was described to herself_i.' *Passive* (Charnavel et al. 2009:6)
- (52) **Jean_i se_i* semble [*t*_{Jean} malade].
 Jean 3REFL seems sick
 Int: 'Jean_i seems to himself_i to be sick.' *Raising* (Charnavel et al. 2009:6)

Note that binding of *se* by the subjects in these examples is impossible despite an apparently unproblematic linear order, showing that linear order is not the relevant criterion. In order to rule out such sentences, it has been argued (e.g. by Burzio 1986) that binding must happen before movement: the reason why *se* could not be bound by *Marie* in a pas-

sive like (51) is that at the time binding happens, *Marie* is not yet the subject, and does not yet c-command the reflexive. The timing of operations thus would have to be: binding precedes movement. Pure (reductionist) movement approaches to subject-orientation are thus faced with an inconsistency, whereby binding must apply both before and after movement, in order to derive the correct facts by movement only. While fine-tuning the order of operations in such a way is not impossible, this is a significant shortcoming of such accounts. More needs to be said to successfully derive subject-orientation.

In addition to not being able to be bound by derived/raised subjects, *se* cannot be bound by demoted subjects, e.g. by-phrases of passives, either: (53) is ungrammatical, where *se* would be bound by *Jean*, the demoted subject of a passive.

- (53) **Marie_i s'_j est été décrite par Jean_j.*
Marie 3REFL is been described by Jean
 Int: 'Marie_i was described by Jean_j to himself_j.'

The facts in (51) and (52) showed that *se* cannot be bound by a surface subject that is not the external argument. Conversely, (53) shows that an external argument that is not the surface subject is not a suitable binder for *se* either. What seems to be the case is that *se* can only be bound by those subjects which are both the external argument and the surface subject.

5.3.2 The structure of *se*-reflexives

In order to ensure matching of the external argument and the surface subject, [Ahn \(2015\)](#) resorts to grammatical voice. Indeed, voice is what determines the mapping of arguments. For instance in passives, it is responsible for demotion of the external argument to a by-phrase and promotion of the internal argument to subject position. Similarly, reflexive voice enforces the requirement that the external argument remains the subject and the internal argument the object, while contributing reflexive semantics that establish a coreferential reading between the two arguments. The main insight of [Ahn \(2015\)](#), which I adopt, is that the presence of a reflexive voice head accounts for both the semantics and the subject-orientation of anaphors like *se*.

I do not postulate a separate VoiceP projection, but instead assume that voice and *v* are bundled in French, in the sense of [Pylkkänen \(2008\)](#).⁷ In other words, a single head syntactically combines the functions of introducing the external argument, assigning accusative case to the internal argument, encoding causative/agentive semantics and verbalizing ([Chomsky 1995b](#); [Kratzer 1996](#)). The assumption that *v* and voice are bundled together in French is first based on the fact that there is no morphological evidence

⁷This is cross-linguistically parametrized, see for instance [Harley \(2017\)](#) and [Sundaresan and McFadden \(2017\)](#) for languages in which they are split projections.

in the language that they should be separate projections. Indeed, voice heads in French are not spelled-out as separate morphemes, and there is a lot of syncretism in the morphological reflexes of different voices (i.e. auxiliary selection and the use of *se*), making it unlikely for a child acquiring the language to postulate a separate head for each voice. Furthermore, [Folli and Harley \(2007\)](#) and [Harley \(2017\)](#) provide a diagnostic for v+voice bundling which is based on Italian passives of causatives and can be applied to French. Assuming that v is the locus of light verbs, a bundling analysis suggests that the locus of light verbs (v) and that of the introduction external argument (voice) are tied together. [Folli and Harley \(2007\)](#) thus predict that in bundling languages, light verbs should fail to passivize, since adjusting voice (by passivizing and affecting the introduction of the external argument) would also necessarily involve adjusting v (the locus of the light verb). An example of such a light verb is the causative *faire* ‘make’.

- (54) a. Jean a fait rire Marie.
 Jean have.AUX.PRS.3SG made.PTCP laugh.INF Marie
 ‘Jean made Marie laugh.’
 b. *Marie a été fait rire par Jean.
 Marie have.AUX.PRS.3SG been.PTCP made.PTCP laugh.INF by Jean
 ‘Marie was made to laugh by Jean.’ (adapted from Italian from [Folli and Harley 2007](#): 226)

As the examples above illustrate, the light verb *faire* ‘make’ cannot be passivized, highlighting that light verbs and passive morphology (*be* auxiliary selection) are not compatible. This suggests that voice and v are bundled in French, like in Italian. If they were not, we would expect passive voice morphology to be able to select light verbs like causative *faire* as well as main verbs. Instead, a bundled voice+v yields complementary distribution between voice morphology and light verbs (see [Folli and Harley 2007](#); [Harley 2017](#) for more details and [Guasti 2006](#) for critical discussion).

Coming back to reflexive voice, I propose that it is encoded on v as a feature bundle, and has the following properties in French:

1. it contributes reflexive semantics
2. it introduces the external argument as its specifier
3. it assigns accusative case to the internal argument
4. it is the locus of object φ -agreement
5. it bears uninterpretable [ID]-feature with two empty values ([ID: __, __])

Assuming that these properties are encoded on v in the form of features, different types of voices are taken to be encoded as different feature bundles on the voice head (in this

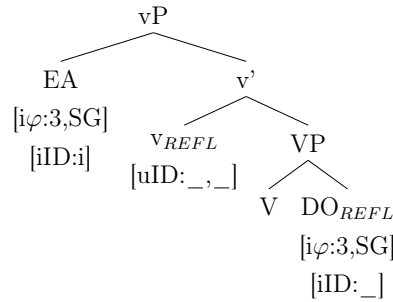
case the *v* head) (Ahn 2015; Sailor & Ahn 2010). As such, different voices are expected to be in complementary distribution with each other if their feature sets are contradictory: a *v_{REFL}* will carry reflexive semantics, incompatible with the passive semantics of *v_{PASS}*. *v_{REFL}* introduces an external argument and assigns accusative, features that are absent on *v_{PASS}* (see 5.3.3).

Within a framework in which binding is syntactically realized by an Agree operation between the antecedent and the anaphor, reflexive voice gets involved by having this Agree relation mediated by *v_{REFL}* (Heinat 2008; Kratzer 2009; Reuland 2011). As introduced in 2.2.3, one of the insights behind *v*-mediated binding is the hypothesis that semantic binding is tied to a verbal functional head, which introduces reflexivizing semantics and creates reflexivized predicates. Building on this, Ahn (2015) argues that local subject-orientation follows from rules of semantic composition. Namely, semantically, *v_{REFL}* denotes a function that coidentifies two arguments (Ahn 2015; Déchaine & Wiltschko 2017; Labelle 2008). Given the Minimalist assumption that the semantic interpretation follows from denotations of syntactic constituents and the order in which they merge, and given the structural position of the subject, the reflexive voice head and the reflexive anaphor after movement, *v_{REFL}* takes as its two arguments the anaphor and the subject, deriving their identity. In Ahn's analysis, feeding the semantic derivation with the appropriate syntactic structure requires movement of the anaphor to Spec,vP, which in turn necessitates the assumption of an EPP-feature on *v* that specifically targets anaphors.

I propose that the mediating role of *v_{REFL}* is syntactically encoded in its featural composition, and that the local subject-orientation of *se* is derived by syntactic requirements only, furthermore dispensing with the assumption that *se* must move through Spec,vP. Specifically, I assume that *v_{REFL}* carries an uninterpretable [uID:_,_] feature, with two unvalued slots, which must be valued by matching [ID]-values. This mirrors the insight that reflexive voice semantically encodes referential identity of two arguments. Given independent constraints on Agree, satisfaction of the featural requirements of *v_{REFL}* yields local-subject orientation, as well as PCC-like intervention effects in DOCs.

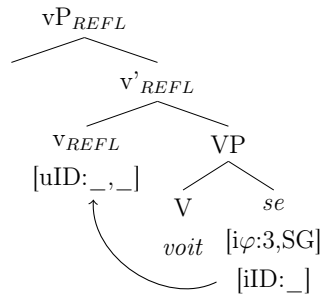
The starting syntactic structure of the reflexive sentence in (55a) is illustrated in (55b). The external argument is generated in Spec,vP_{REFL}; the anaphor *se* originates as the complement of *V* (subsequent clitic raising to *T* is not depicted in the derivations). As proposed in chapters 2 and 4, I assume that anaphors are born with interpretable unvalued [iID:_] features. Referentially independent nominals, i.e. potential antecedents, carry an interpretable valued [iID:*i*]. Finally, as introduced earlier, I assume strict upward probing for checking and valuation of [ID]-features, as well as feature sharing as defined by Pesetsky and Torrego (2007).

- (55) a. Marie se voit.
 Marie 3REFL sees
 ‘Marie sees herself.’
 b.



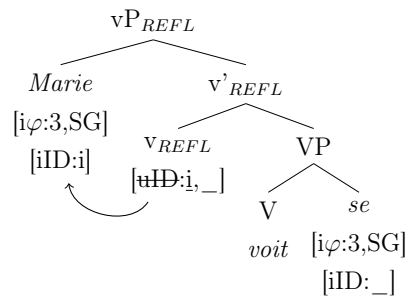
In a first step, v_{REFL} merges with the reflexive object. The $[iID:_]$ feature of the anaphor probes up and encounters v_{REFL} 's $[uID:_,_]$, which cannot value it. As a result, the dialogue is established between v and the anaphor for further feature sharing relations.

- (56) *Step 1: establishing a link between the anaphor and v_{REFL}*



In a second step, the subject is merged into the structure. The subject's $[iID:i]$ constitutes an appropriate goal for v 's $[uID]$, which therefore gets checked and valued by the subject for one of its values.

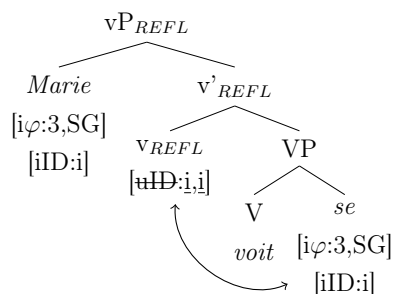
- (57) *Step 2: valuation and checking of v_{REFL} 's feature by the subject*



In a third and final step, the $[iID]$ -feature of the anaphor thus gets transitively valued by v , with which it previously stood in an Agree relation, by means of feature sharing, and

in turn shares its value with *v*'s second unvalued slot.

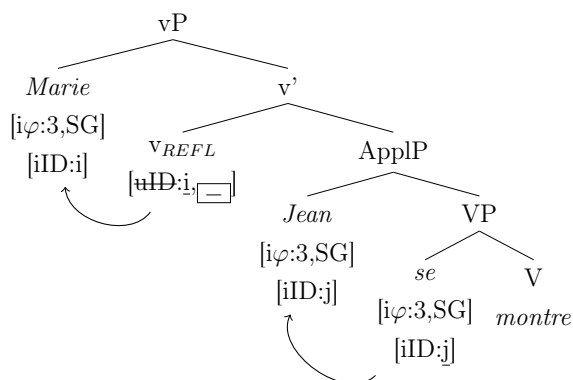
(58) *Step 3: feature sharing*



v_{REFL} thus stands in an Agree relation with both the subject and the anaphor: it gets its value from the higher DP (the subject/antecedent), and is in a feature sharing relation with the lower DP (the anaphor). As such, *v* mediates a relation between necessarily matching [ID]-features.

This set-up successfully rules out coindexation of direct object *se* with the c-commanding indirect object, correctly deriving local subject-orientation, as illustrated once more by the following example.

- (59) a. Marie_i se_{i/*j/*k} montre Jean_j.
 Marie 3REFL show.PRS.3SG Jean
 'Marie shows Jean to herself/*himself.'
- b.



The presence of two unvalued [ID]-features on v_{REFL} , combined with the assumption that Agree is strictly upwards, straightforwardly derives the ungrammaticality of the above configuration. While nothing prevents the IO from valuing the anaphoric DO's [iID: _], the satisfaction of the latter by an intervener prevents v_{REFL} from establishing any Agree relations with a second argument. Indeed, v_{REFL} 's [uID] can only probe upward, and its c-commanding domain only contains one goal, i.e. the subject/external argument. What allows it to stand in a relation with two arguments in simple transitives is the probing

from an [ID]-deficient lower argument. In the presence of an intervener with a valued [ID]-feature, *v*'s second value cannot be filled, leading to a crash in the derivation.

As outlined in 4.2.3, the derivation of reflexive sentences involving an [ID]-deficient anaphor like *se* thus rests on two crucial elements: first, on an Agree relation establishing coindexation between the anaphor and its antecedent via [ID]-features; second, as argued for in this section, on the presence of a reflexive voice head acting as a mediator and ensuring that binding is always subject-oriented. In the above-described configuration, the second condition cannot be met: the reflexive voice head does not mediate the Agree relationship between two matching indices. As I will develop further in 5.4, it is precisely this configuration that yields PCC-effects.

5.3.3 Explaining intransitive-like properties of *se*-reflexives with voice

An approach of *se*-reflexives in terms of voice thus successfully satisfies the desiderata listed at the beginning of the section. It derives (i) reflexivity in syntax and post-syntactically, (ii) building on a transitive predicate, (iii) whose subject is also the external argument. Additionally, it derives local subject-orientation of the anaphor as a combination of the syntax of voice and independent conditions on Agree. The last requirement for a working analysis of *se*-reflexives is to account for their intransitive-like properties.

One of the main reasons that prompted intransitive and especially unaccusative analyses of *se*-reflexives is the fact that it is incompatible with passivization or subject-raising. This has been taken as evidence for their lack of external argument, putting them in the same class as unaccusatives. However, these facts find a natural explanation if one assumes that *se*-reflexives contain a v_{REFL} . As such, reflexive voice is assumed to be in complementary distribution with other types of voices, including passive voice. More specifically, it is predicted that combining different voices with conflicting selectional or featural requirements will be ungrammatical. For instance, a passive voice v_{PASS} does not select an external argument in its specifier (i.e. does not have a D-feature), and does not have an interpretable accusative case feature, while a v_{REFL} has both a D-feature and an accusative case feature to assign/check. Merging of (the feature set of) a v_{REFL} is simply incompatible with merging of (the feature set of) a v_{PASS} on the same head. This straightforwardly disallows the possibility of a reflexive of a passive (or passive of a reflexive), as shown in (60c).

- (60) a. Jean sera $[v_{P_{pass}}$ livré à la police (par Marie)].
 Jean be.FUT.3SG delivered to the police by Marie
 ‘Jean will be delivered to the police by Marie.’ *Passive*
- b. Jean_i se_i $[v_{P_{refl}}$ livrera à la police].
 Jean 3REFL deliver.FUT.3SG to the police

- ‘Jean will deliver himself to the police.’ *Reflexive*
- c. *Jean_i se_i sera [_vP_{pass+vP_{refl}} livré (par Marie).
 Jean 3REFL be.FUT.3SG delivered by Marie
 Int: ‘Jean will be delivered to himself by Marie.’ *Passive + reflexive*

Raising constructions are similarly incompatible with reflexives, as illustrated again in (61).

- (61) *Jean_i se_i semble [_t_{Jean} faire de très bons gâteaux].
 Jean REFL seems make.INF ART very good cakes
 Int: ‘Jean_i seems to himself_i to make very good cakes.’

In a raising construction like (62), the matrix subject *Jean* originates as the external argument of the embedded verb *faire* ‘make’ and raises over the experiencer of *sembler* ‘seem’ – in this case *me* ‘to me’ – to the matrix subject position.

- (62) Jean me semble [_t_{Jean} faire de très bons gâteaux].
 Jean 1SG.DAT seems make.INF ART very good cakes
 ‘Jean seems to me to make very good cakes.’

Such Raising-Over-Experiencer (ROE) constructions roughly have the following argument structure.

- (63) [_vP [_vP *sembler* DP_{Exp} [_vP DP_{EA} [_vP V_{INF} DP_{IA}]]]]

Importantly, the higher *v* does not select an external argument. For this reason, [Ahn \(2015\)](#) argues that such ROE constructions require the presence of a specific Voice head (let it be called *v_{ROE}*). The fact that this higher *v_{ROE}* does not select an external argument in its specifier makes it incompatible with a *v_{REFL}*, which requires an external argument. The ungrammaticality of (61), repeated in (65) below, follows from the incompatibility of selectional requirement of two different voice heads.

- (64) Jean [_vP_{roe} me semble [_vP _t_{Jean} faire de très bons gâteaux]].
 Jean 1SG.DAT seems make.INF ART very good cakes
 ‘Jean seems to me to make very good cakes.’ *ROE*
- (65) *Jean_i [_vP_{roe+vP_{refl}} se_i semble [_vP _t_{Jean} faire de très bons
 Jean REFL seems make.INF ART very good
 gâteaux]].
 cakes
 Int: ‘Jean_i seems to himself_i to make very good cakes.’ *ROE + reflexive*

Since the structure schematized in (63) contains two *v*Ps, this account predicts that the lower *v*, which is not a *v_{ROE}* and selects an external argument, should be able to reflexivize. This indeed seems to be possible (though judgements might differ), as shown by (66), in

which the lower v is reflexive and the higher v is a v_{ROE} .⁸

- (66) ?Jean_i [_{VP_{proe}} (me) semble [_{VP_{refl}} t_{Jean} s'_i être dénoncé]].
 Jean 1SG.DAT seems REFL be.INF denounce.PTCP
 'Jean seems (to me) to have denounced himself.'

A reflexive lower v yields coreference between the external argument of the lower predicate *Jean* and the theme of the lower predicate, but cannot involve the experiencer, which is located in the higher vP. Thus the incompatibility of reflexives with passives and raising-over-experiencer constructions follows naturally from the conflicting selectional and featural requirements of different voices. The discussion of the behavior of *se* in causatives is delayed until section 5.4.4.

Furthermore, associating local subject-oriented reflexivity with a reflexive voice also naturally accounts for morphological properties of *se*-reflexives without postulating that they should be intransitive. As Ahn (2015), and others before him, remark, reflexive clauses, and in particular local subject-oriented reflexive clauses, "do not pattern uniformly as either active/transitive or non-active/intransitive, across languages" (Ahn 2015: 242). French is a case in point, for reflexives share properties with transitive clauses, beginning with the strong parallelism between *se* and other pronominal clitics (in their form, position, case and features), but also with intransitive predicates, with which reflexives share auxiliary selection (the *be* auxiliary), and even the pronominal *se* morphology. Auxiliary selection in French and other languages is clearly sensitive to voice alternations: active voices select *have*, while a plurality of other voices, like passive voice and middle voice, select *be*.

- (67) a. Charles l' **a** vu.
Charles 3MSG.ACC have.PRS.3SG see.PTCP
'Charles has seen it.' *Active voice*
- b. Charles s' **est** vu.
Charles 3REFL be.PRS.3SG see.PTCP
'Charles has seen himself.' *Reflexive voice*

⁸Some further examples of this can be found with a quick search on the internet, for instance:

- (i) a. Toutefois, le **rapport**_i relatif à la réforme du programme MEDA **me**
however the report pertaining to the reform of the programme MEDA 1SG.DAT
semble se_i **fourvoyer** à plusieurs égards.
seems 3REFL err.INF in several respects.
(<http://www.europarl.europa.eu>, from debates at the European Parliament on 6/09/2000)
- b. Et cela quel que soit l'angle sous lequel je pourrais aborder ce thème, puisque
and this whatever the angle under which I could tackle this theme, since
aussi bien **celui-ci**_i **me** **semble se**_i **prêter** à trois lectures au moins [...]
as much it 1SG.DAT seems 3REFL lend.INF to three interpretations at least
(Plon, M. (2006:105), *Violence, guerre et jouissance*, Sud/Nord 21:1)

- c. Charles **est** renvoyé.
 Charles be.PRS.3SG fire.PTCP
 ‘Charles is fired.’ *Passive voice*
- d. Tous les livres **se sont** vendu-s.
 All the books SE be.PRS.3PL see.PTCP-MPL
 ‘All the books have been sold.’ *Middle voice*

The fact that *se*-reflexives affect auxiliary selection is an argument for associating them with their own voice. The literature on voice has furthermore pointed out that most often, each voice does not come with its own set of morpho-syntactic markers and reflexes, and a single morphology is shared by several voices. In other words, *se*-reflexives sharing their morphology with other voices does not necessarily identify them with these other voices, i.e. does not make them intransitive/non-active.

By the same token, the use of *se* in non-reflexive constructions is not so surprising anymore, in that being associated with one voice, it may also be associated with others. However, I leave open here the exact status of *se* in non-reflexive constructions. If, as I have argued, *se* is identified as the anaphor in reflexive constructions rather than as the voice head itself, its occurrence in middles and inchoatives seems unexpected. One possibility is that *se* alternates between an anaphoric item merged as an internal argument in reflexive constructions on the one hand, and a voice head or lexical marker of detransitivization on the other, as in middles, inchoatives and inherent reflexives. Another possibility is developed in Schäfer (2017), who analyses *se* in anticausatives and medio-passives as an expletive argument: *se* is a DP in an A-position but does not have a θ -role. Importantly, what Schäfer (2017) calls voice syncretisms, i.e. the shared use of *se* by different voices, is not predictive of transitivity or intransitivity. In fact, he even derives a typology of voices in which *se*-constructions each have a different combination of transitivity properties, e.g. they may be \pm syntactically transitive and \pm semantically transitive (see Schäfer 2017 for details).

Finally, the status of the strong anaphoric form *pro-même* to double *se* in reflexive sentences remains ambiguous. Indeed, *pro-même* in these constructions behaves partly as an argument and partly as an adjunct, conferring it a mixed status. On the one hand, doubling of the reflexive clitic by *pro-même* is not fully parallel to doubling of clitic pronouns by a strong pronoun or a full DP. Kayne (1969) claims that the reflexive clitic can be doubled by the strong reflexive *pro-même* in-situ without any intonational break or, according to him, a particular contrastive effect in the interpretation. In contrast, such doubling of a clitic pronoun like *me* is obligatorily dislocated and yields a contrastive interpretation. In (68b), the intonational break indicating dislocation is represented by the commas surrounding the strong pronoun in the dative *à moi*.

the parallels between the reflexive anaphor *se* and 1st and 2nd person clitic pronouns in French, arguing that they form a natural class.

5.4 [ID] and *se*: applying the proposal to French

The previous sections addressed a number of background issues pertaining to the syntax of French *se*-reflexives, and established their syntactic structure. *Se* was demonstrated to be a case-bearing reflexive anaphor that functions as an object in transitive constructions involving a reflexive voice head. Local subject-oriented reflexivity is derived thanks to the conjoined action of a reflexive voice and agreement in [ID]-features. On this basis, we are now ready to provide an analysis for the common distributional restrictions of *se* and 1st/2nd person weak pronouns in double object constructions.

5.4.1 *Se* and the PCC: a short recap

An important characteristic of *se* is that it obeys PCC effects, mirroring 1st and 2nd person pronouns. As introduced in chapter 3, French is a well-known case of the (strong) Person-Case Constraint (PCC). 1st and 2nd person, as well as 3rd person reflexive DO clitics are disallowed in DOCs, as opposed to 3rd person DOs, as illustrated below and recapitulated in the following table.

- (71) a. Il **le/*me/*te/*se** **lui** présente.
 3SG.NOM 3SG/1SG/2SG/3REFL.ACC 3SG.DAT introduce.PRS.3SG
 ‘He introduces him/me/you/himself to him/her.’
- b. Ils **les/*nous/*vous/*se** **leur** présentent.
 3PL.NOM 3PL/1PL/2PL/3REFL.ACC 3PL.DAT introduce.PRS.3PL
 ‘They introduce them/us/you(pl)/themselves to them.’

This pattern, found cross-linguistically, formed the basis of the puzzle addressed in this thesis: what brings 1st/2nd person and reflexives together to the exclusion of other 3rd persons? The question is all the more salient in French that *se* is exclusively a 3rd person reflexive, as it is restricted to 3rd person antecedents.

- (72) Je_i *se_i/me_i vois dans le miroir.
 1SG.NOM *3REFL/1SG.ACC see.PRS.1SG in the mirror
 ‘I_i see myself_i in the mirror.’

This suggests that *se* is itself 3rd person, since anaphors typically match their antecedent’s φ -features. On the one hand, *se* is therefore an unambiguously 3rd person item, but on the other it patterns like 1st/2nd person and unlike 3rd in PCC contexts. As argued for in chapter 3, this is especially problematic for theories of the PCC in terms of φ

Table 5.6: PCC effects with 1st/2nd and reflexives in French

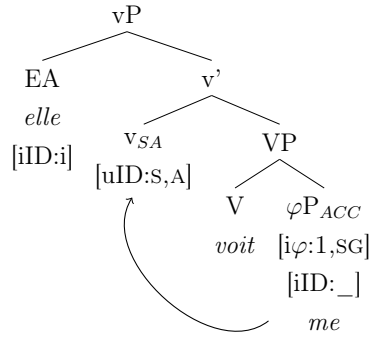
IO	DO	French
3	3	✓
3	1/2	✗
3	REFL	✗
1/2	3	✓
1/2	1/2	✗
1/2	REFL	✗
REFL	3	✓
REFL	1/2	✗
REFL	REFL	✗

[PARTICIPANT] features which are led to postulate complex feature partitions, e.g. two φ -featurally distinct types of 3rd person, and which suffer from a number of independent shortcomings. Instead, chapter 4 introduced an alternative proposal based on referential [ID]-features. In what follows, I will apply the analysis outlined in chapter 4 to the licensing of 1st/2nd person participants and reflexive *se* in French DOCs. Furthermore, I will show that this analysis also extends to the behavior of reflexive anaphors in causative constructions, showing that the predictions made by this proposal allow to account for data beyond DOCs.

5.4.2 Deriving the PCC for 1st and 2nd person

As introduced in chapter 4, the behavior of 1st/2nd person in DOCs is rooted in the CLR, which states that 1st/2nd person pronouns are born with an unvalued interpretable [iID:_] feature, which can be valued by a syntactic representation of the utterance context. In French, *v* constitutes a locus for valued [uID:S,A] features. The following context-linking operation thus applies in the case of a simple transitive verb with a 1st person DO.

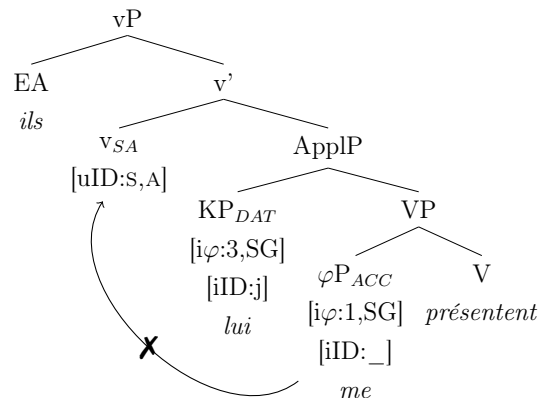
- (73) a. Elle **me** voit.
 3FSG.NOM 1SG.ACC see.PRS.3SG
 ‘She sees me.’
 b.



The clitic *me* syntactically corresponds to a weak pronoun, i.e. a φ P. The unvalued $[iID: _]$ feature on the 1st person object *me* probes up to Agree with the valued counterpart located on v. As specified in chapter 4, the 1st person singular φ -features of the DO restricts the possible inherited value of its [ID]-features to the index referring to the speaker of the utterance, due to their presuppositional restrictions (Heim & Kratzer 1998; Sudo 2012). v's uninterpretable feature is trivially checked by the subject. Note that although I do not represent these relations in the present derivations for better readability, v is taken to assign accusative case to the DO and is also a φ -probe in French, at least for number and gender, which will agree with any case accessible preverbal object.

In a DOC, failure by v to value the DO's [ID]-feature leads to PCC effects. Consider the following example, with a 1st person DO *me* and a 3rd person IO *lui*. This gives rise to the following configuration.

- (74) a. *Ils **me** **lui** présentent.
 3PL.NOM 1SG.ACC 3SG.DAT introduce.PRS.3PL
 Int: 'They introduce me to him/her.' *3 IO > 1/2 DO
- b.

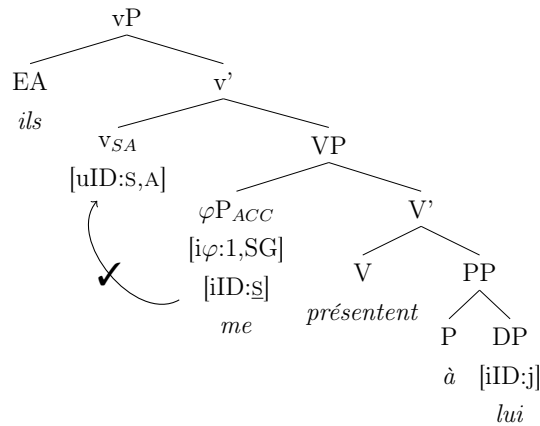


When the unvalued $[iID: _]$ of the DO probes up, it will encounter the valued $[iID:j]$ of the IO which structurally intervenes between it and v_{SA} , thus preventing valuation of the DO's [ID] by v. As spelled out in 4.3.4, dative IOs in French are assumed to have

Finally, recall that PCC effects can be obviated by resorting to a prepositional dative construction rather than a double object construction. In prepositional dative constructions, the IO is introduced lower as a PP (see Anagnostopoulou 2003; Cuervo 2003; Demonte 1995; Fournier 2010; Rezac 2008; Sheehan to appear for the relevant diagnostics). The IO thus no longer structurally intervenes, allowing the 1st person DO to satisfy its licensing requirement by agreeing with v's [ID].

- (77) a. Ils **me** présentent **à lui**.
 3PL.NOM 1SG.ACC introduce.PRS.3PL to 3MSG.DAT
 ‘They introduce me to him.’ 3 IO > 1/2 DO

b.



In summary, PCC effects for 1st/2nd person in French follow from their context-sensitivity, translated as an unvalued [ID]-feature. Following standard accounts of PCC effects, DOCs give rise to intervention of the IO for licensing of 1st/2nd person DOs. Non-context-sensitive 3rd persons are not affected by this intervention, as their [ID]-feature is inherently valued. Next, I turn to the derivation of PCC effects with *se*-reflexives.

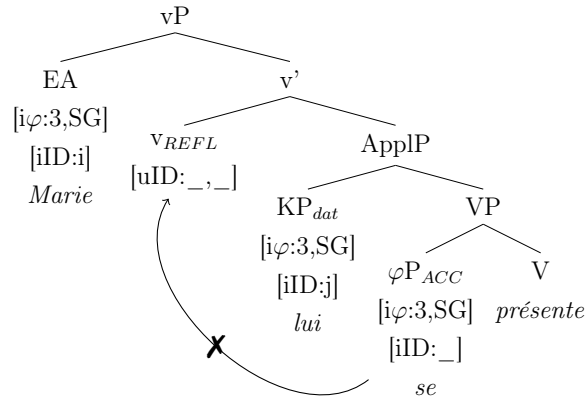
5.4.3 Deriving the PCC for reflexives

Assuming the structure outlined above in 5.3.2 for *se*-reflexives, PCC effects with *se* follow straightforwardly. *v_{REFL}* is the locus of reflexivity: semantically, it contributes a reflexivization function; syntactically, it mediates [ID]-agreement between the subject that immediately c-commands it and the reflexive object that it immediately c-commands thanks to an unvalued [ID]-feature pair.

In a double object construction, the following scenario occurs when the DO is reflexive, parallel to the one observed for 1st/2nd person DOs.

- (78) a. *Marie **se** **lui** présente.
 Marie 3REFL.ACC 3SG.DAT introduce.PRS.3SG
 Int: ‘Marie introduces herself to him/her.’ *3 IO > REFL DO

b.

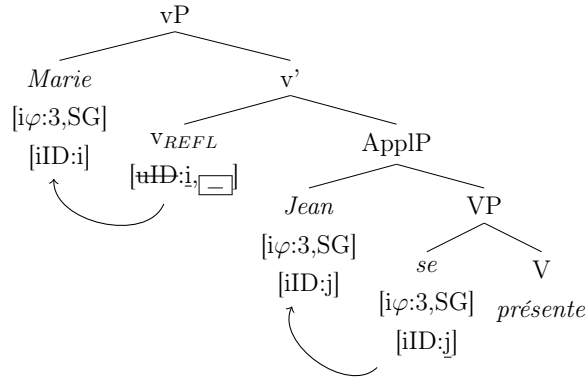


When the unvalued $[iID: _]$ of the reflexive DO probes up, it encounters the valued $[iID:j]$ of the IO which structurally intervenes between it and v_{REFL} . This prevents the $[ID]$ -deficient anaphor to establish a relation with the voice head and further the subject antecedent, creating the impossibility for the anaphor to be bound for the subject and for both of v_{REFL} 's features to be valued. Recall that in order to derive reflexivity, both matching indices and the mediation of a reflexive voice head are required: syntactically, both the featural requirements of the anaphor and those of the v_{REFL} must be met. The configuration that arises prevents these two conditions to be satisfied at the same time, as will now be detailed.

First, one could imagine that the $[ID]$ -deficient DO agrees with the first goal it encounters, i.e. the IO, thus resulting in valuation of the anaphor's $[ID]$ -feature and matching indices between the IO and the DO. Satisfaction of the anaphor's feature is however not enough to derive a reflexive sentence when v_{REFL} is present, since both of v_{REFL} 's $[ID]$ -features must also get valued for the derivation to converge. Assuming that Agree is strictly upward, this is impossible when the only argument c-commanding v_{REFL} is the subject and no Agree relation is established with v_{REFL} by a lower argument probing up. It is precisely this Agree relation that gets bled by an intervening IO, which values the anaphoric DO's $[ID]$ -feature, thus preventing it to Agree further up with v_{REFL} . The second $[ID]$ -feature of v_{REFL} thus stays unvalued, leading to ungrammaticality.

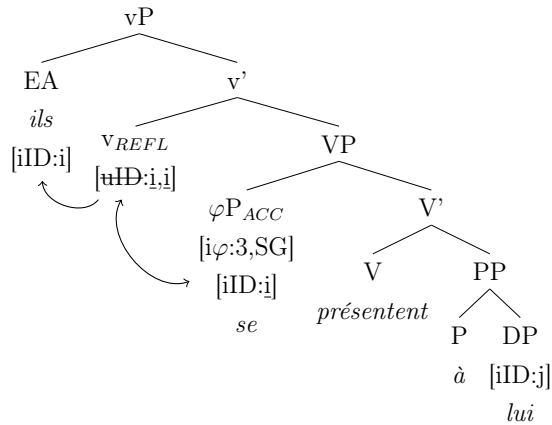
(79) *Ruled out: IO-DO coreference*

- a. *Marie_i se_j lui_j présente.
 Marie 3REFL.ACC 3SG.DAT introduce.PRS.3SG
 Int: 'Marie_i introduces him_j to himself_j.'
- b.



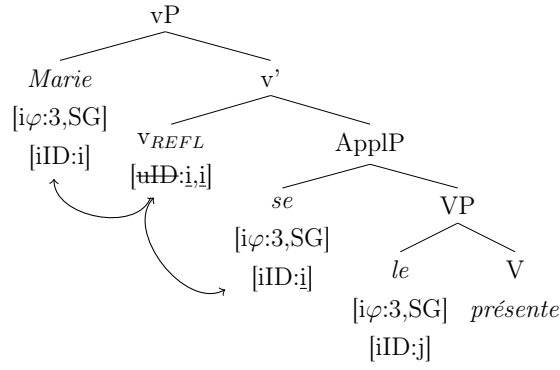
The PCC thus comes about for reflexive DO in double object constructions in the same way as it does for 1st/2nd person DOs: their unvalued [ID]-feature fails to be agree with the appropriate goal, which in both cases is the functional head *v*, be it ‘plain’ or reflexive, leading to failure to satisfy the CLR. Like it was the case for 1st and 2nd person pronouns, PCC effects with reflexives in ditransitives are obviated as soon as dative intervention is lifted, for instance in a prepositional dative construction.

- (80) a. Ils_i se_i présentent à lui_j.
 3PL.NOM 3REFL.ACC introduce.PRS.3PL to 3MSG.DAT
 ‘They_i introduce themselves_i to him_j.’ 3 IO > 1/2 DO
- b.



For the same reason, sentences involving a reflexive IO and a pronominal 3rd person DO are grammatical, since nothing intervenes between the anaphor and the *vREFL*.

- (81) a. Marie_i se_i le_j présente.
 Marie 3REFL.DAT 3SG.ACC introduce.PRS.3SG
 ‘Marie_i introduces him_j to herself_i.’
- b.



Note that dative *se* constitutes an intervener as much as any other dative pronoun in French, therefore accounting for the ungrammaticality of *IO REFL > DO 1/2, as in the following example, where the intervening reflexive prevents the 1st person DO to be context-linked by agreeing with v_{SA} .

- (82) a. *Marie_i **se**_i **me**_j présente.
 Marie 3REFL.DAT 1SG.ACC introduce.PRS.3SG
 Int: 'Marie_i introduces me_j to herself_i.'

The system proposed here, based on context-linking and binding by [ID]-agreement and on reflexive voice heads, thus allows to derive PCC-effects for 1st/2nd person and reflexives in French. Valuation of the unvalued [ID]-feature of 1st/2nd person pronouns DOs by v_{SA} and of reflexive DOs by the subject via v_{REFL} is made impossible by intervention of dative IOs, bearing a valued [ID]-feature themselves. Valuation of the [ID]-deficient DO by the IO's valued [ID] is not a viable option: in the case of reflexives, this would bypass the involvement of v_{REFL} , whose features must be valued by agreeing with two arguments and whose contribution is essential to derive reflexive semantics and syntactic subject orientation. In the case of 1st/2nd person, valuation of a 1st/2nd person DO by the IO is ruled out due to clashing presuppositional restrictions of mismatching φ -features. The next section will examine an interesting extension of the proposal concerning restrictions on reflexives and 1st/2nd person in causative constructions.

5.4.4 Causatives, reflexives and the PCC

We saw in section 5.2.1 that reflexives behave unusually in causative constructions, in that they seem to pattern with intransitive verbs with regard to how the causee is introduced. In a causative of a transitive, i.e. a 'regular' causative, like (83a), the causee *Paul* is introduced by the preposition *à*. In contrast, it is ungrammatical to use this preposition to introduce the causee when the construction is intransitive (83b) or reflexive (83c).

- (83) a. Je ferai laver Max à **Paul**.
 I make.FUT.1SG wash.INF Max to Paul

- ‘I will make Paul wash Max.’ *Transitive*
- b. Je ferai courir (*à) Paul.
 I make.FUT.1SG run.INF (to) Paul
 ‘I will make Paul run.’ *Intransitive*
- c. ?Je ferai se_i laver (*à) Paul_i.
 I make.FUT.1SG 3REFL wash.INF (to) Paul
 ‘I will make Paul wash himself.’ *Reflexive*
- (adapted from Reinhart and Siloni 2004: 162)

This parallel has been taken as evidence that reflexives are intransitive (Kayne 1975; Reinhart & Siloni 2004, 2005). However, previous sections have debunked such accounts and proposed an analysis of *se*-reflexives as transitive constructions building on properties of a reflexive voice head, which allowed to account not only for the transitive-like properties of *se*-reflexives but also for many of their intransitive-like characteristics. Yet, the behavior of reflexives in causatives is so far left unexplained. This subsection will show through a thorough survey of the interaction of causatives and reflexives that the behavior of *se*-reflexives in *faire-infinitif* causatives, previously attributed to their intransitive status, is in fact the product of a PCC-effect.

Romance causatives come in two guises: so-called *faire-infinitif* (FI) causatives and *faire-par* (FP) causatives (Kayne 1975). In FI-causatives, illustrated in (84a) below and in the examples cited above, the causee is introduced by the preposition *à* ‘to’ (also the dative preposition), while in FP-causatives it is introduced by the preposition *par* ‘by’, as in (84b).

- (84) a. Marie fait embrasser Charles à Paul.
 Marie make.PRS.3SG kiss.INF Charles to Paul
 ‘Marie makes Paul kiss Charles.’ *FI*
- b. Marie fait embrasser Charles par Paul.
 Marie make.PRS.3SG kiss.INF Charles by Paul
 ‘Marie makes Paul kiss Charles.’ *FP*

Although superficially similar, the two constructions diverge in a number of aspects that have prompted their analysis as two different structures (see Guasti 2006 for an overview).

I will start by analyzing the behavior of *se*-reflexives in FP causatives, showing that they pattern exactly like all other object clitics in these causatives, reinforcing the claim that they are regular pronominal anaphors. I will then move on to reflexives in FI causatives, where it will be shown that they are restricted in the same way as 1st and 2nd person clitics. This behavior will be demonstrated to arise from an intervention effect of the causee for the licensing of 1st/2nd person and reflexive clitics. Finally, the peculiar placement of 1st/2nd person and reflexive clitics in FI causatives will be analyzed as a type of ECM construction and a repair strategy (Rezac 2011; Schifano & Sheehan 2018;

Sheehan to appear).

5.4.4.1 *Faire-par* causatives

With these preliminaries in place, let us now look at the behavior of reflexives in more details, starting by FP causatives. *Se*-reflexives exactly mirror the behavior of transitive verbs in FP causatives.⁹ As can be observed in (85b), *se*-reflexives are perfectly compatible with FP causatives. Their causee can be introduced by *par*, exactly as in regular transitives like (85a).

- (85) a. Marie **le** fera soigner par Dr. Thomas.
 Marie 3MSG.ACC make.FUT.3SG treat.INF by Dr. Thomas
 ‘Marie will make him by treated by Dr. Thomas.’
 b. Marie_i **se**_{i/*j} fera soigner par Dr. Thomas_j.
 Marie 3REFL make.FUT.3SG treat.INF by Dr. Thomas
 ‘Marie will make herself be treated by Dr. Thomas.’

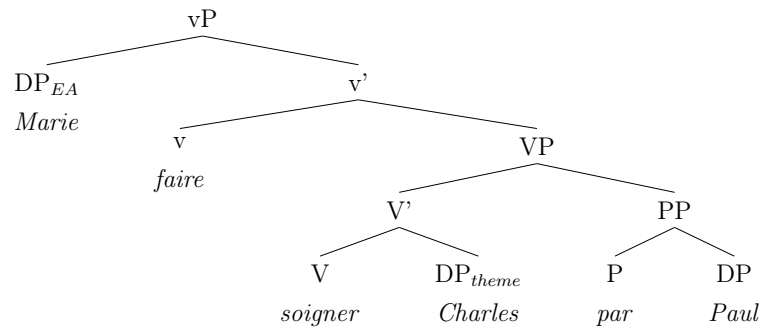
The reflexive clitic also obeys the same clitic placement rules as in non-reflexive transitives. The clitic is obligatorily attached to *faire*, as in (85a) and cannot be attached to the infinitive, as illustrated by the ungrammaticality of examples in (86).

- (86) a. *Marie fera **le** soigner par Dr. Thomas.
 Marie make.FUT.3SG 3MSG.ACC treat.INF by Dr. Thomas
 Int: ‘Marie will make him be treated by Dr. Thomas.’
 b. *Marie_i fera **se**_i soigner par Dr. Thomas.
 Marie make.FUT.3SG 3REFL treat.INF by Dr. Thomas
 Int: ‘Marie will make herself be treated by Dr. Thomas.’

Finally, reflexives in FP causatives are obligatorily local subject-oriented, as expected: *se* cannot take the DP in the by-phrase as its antecedent, as shown by the indices in (85b).

These facts follow from the analysis of *se* as a reflexive anaphor developed in the previous section, and from the structure of FP reflexives, such as that proposed by Folli and Harley (2007). In FP causatives, *faire* is a full-fledged transitive lexical v that takes a VP as its complement and introduces the external argument in its specifier. The theme is introduced as the complement of V, and the causee is introduced as a PP adjunct, which is only optionally present.

⁹Causatives of intransitives, which do not involve the expression of a causee, do not alternate between FP and FI causatives. Instead, causatives of unergatives are claimed to always correspond to FI causatives while causatives of unaccusatives would always be underlying FP causatives (Burzio 1986). See Folli and Harley (2007); Guasti (2006) for details and discussion.

(87) *Faire-par* (FP) causatives

Crucially, the *by*-phrase introduced by *par* is analysed as a true PP, which can be diagnosed by binding tests (Burzio 1986). The following examples illustrate that in an FP causative (88a), the causee *chaque élève* ‘each pupil’ cannot bind the possessive pronoun *son* ‘his’. In contrast, the causee is a possible binder for the possessive in an FI causative, as (88b).

- (88) a. Le maître_i a fait tailler son_{i/*j} crayon [par
 the teacher have.PRS.3SG make.PTCP sharpen.INF his pencil by
chaque élève_j].
 each pupil
 ‘The teacher_i made each pupil_j sharpen his_{i/*j} pencil.’ *FP*
- b. Le maître_i a fait tailler son_{i/j} crayon [à chaque
 the teacher have.PRS.3SG make.PTCP sharpen.INF his pencil to each
élève_j].
 pupil
 ‘The teacher_i made each pupil_j sharpen his_{i/j} pencil.’ *FI*

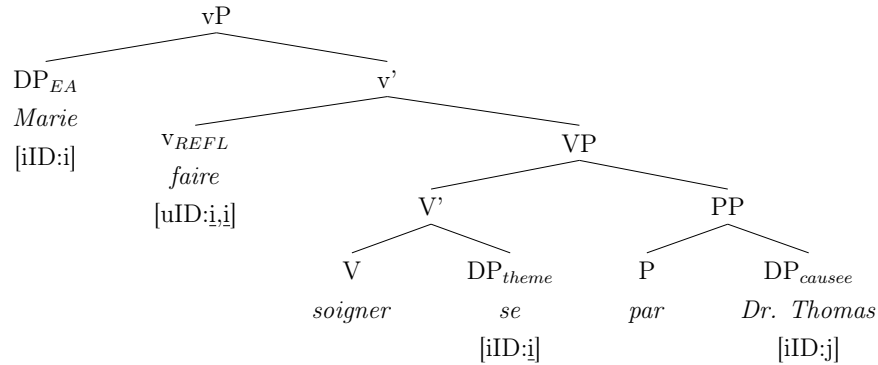
This data shows that the causee in FP causatives does not c-command out of the *by*-phrase, as opposed to the causee of FI causatives which is arguably a simple dative-marked DP (see next section).

Finally, the presence of a reflexive *v* head is compatible with the causative verb *faire* in *v* in FP-causatives. In 5.3.3, I showed that *se*-reflexives are incompatible with passivization or raising-over-experiencer, because of the incompatibility of different voice heads (e.g. *v_{REFL}* and *v_{PASS}*). The possibility of a FP-causative with a reflexive *v* follows from Folli and Harley’s claim that FP-causatives are not derived using a special causative voice head. *Faire*, like any transitive verb (which selects an external argument and assigns accusative case to its internal argument), can thus be reflexivized using a *v_{REFL}*.

Given this, the regular behavior of *se*-reflexives in FP-causatives can be derived straightforwardly. The following tree shows the structure of a reflexive FP-causative, in which all the conditions for reflexivization and licensing are met: since the causee is embedded in a PP, it does not intervene for valuation of the theme anaphor by the subject

via v_{REFL} and v_{REFL} 's [ID]-features can get valued via the mechanism described in the previous section. Like in non-causatives, local orientation of *se* follows from structural conditions on Agree, since the argument immediately c-commanding v_{REFL} is the subject.

(89) *Reflexive FP causative*



In short, FP causatives are simple transitive constructions, which can become reflexive in the way that other transitive constructions can, i.e. by merging a v_{REFL} instead of a simple transitive v . This results in coreference between the theme and the subject. The causee introduced by *par* is unavailable for reflexivization, being embedded within a PP and therefore unable to c-command the theme or intervene for its licensing. Finally, the parallel behavior of reflexive clitics with all other pronominal clitics in FP causatives testifies once more to their pronominal and argumental status.

5.4.4.2 *Faire-infinitive* causatives

While reflexive clitics in FP causatives behave exactly like other pronominal clitics, things are different in FI causatives. Reflexives in FI causatives differ in two points from their non-reflexives counterparts, already mentioned above: the ungrammaticality of the preposition *à* to introduce the causee, and clitic placement. I will show here that restrictions on *se*-reflexives in FI causatives, which have been taken to be a manifestation of their intransitivity, in fact parallel identical restrictions on 1st and 2nd person pronouns, and that the patterns of 1st/2nd person and reflexives can be analyzed as PCC-effects following the analysis developed above. I will first introduce in more detail the patterns of *se* reflexives, before paralleling them with 1st and 2nd person clitics and going through the steps of the analysis.

First, unlike what is the case in FI causatives with non-reflexive arguments (90a), reflexive *se* appears to be ungrammatical in FI causatives, whose causee is introduced by the dative-marking preposition *à*, as already observed in (83b) above and illustrated again below.

- (90) a. Marie **le** fera embrasser à Paul.
 Marie 3MSG.ACC make.FUT.3SG kiss.INF to Paul
 ‘Marie will make Paul kiss him.’
- b. *Marie_i **se_i** fera embrasser à Paul_j.
 Marie 3REFL make.FUT.3SG kiss.INF to Paul
 ‘Marie_i will make Paul kiss her_i.’

Instead, the grammatical counterpart of (90b) is (91), which at first sight seems to be the prepositionless version of (90b).

- (91) Marie_i **se_i/_{*j}** fera embrasser Paul_j.
 Marie 3REFL make.FUT.3SG kiss.INF Paul
 ‘Marie_i will make herself_i kiss Paul.’
 *‘Marie_i will make Paul kiss her_i.’

In this example, *se* is obligatorily coindexed with the subject, as expected given its overall subject-orientation. However, importantly and in contrast with (90b), prepositionless *Paul* is no longer interpreted as the causee, but as the theme. *Se*, in turn, may only be interpreted as the causee: the sentence is only grammatical under the reading *Marie_i will force herself_i to kiss Paul*, and may not be interpreted as *Marie_i will force Paul to kiss her_i*, where *se* would be the theme.

The second specificity of reflexive FI causatives concerns the placement of the reflexive clitic. In FI causatives, the clitic may attach either to *faire*, as in (91) above, or to the infinitive, as in (92a). In this respect, *se* contrasts with a pronominal object like 3rd person *le* in (92b), which cannot be attached to the infinitive. It also contrasts with the behavior of reflexive clitics in FP causatives, for which it is equally ungrammatical (92c). Note already that in (92a), *se* can only be coindexed with the causee, and not with the subject, an unexpected fact to which I will return below. The use of the preposition *à* remains ungrammatical.

- (92) a. Marie_i fera **se_i/_{*j}** dénoncer (*à) Paul_j.
 Marie make.FUT.3SG 3REFL denounce.INF to Paul
 ‘Marie will make Paul denounce himself.’
- b. *Marie fera **le** dénoncer (à) Paul.
 Marie make.FUT.3SG 3MSG.ACC denounce.INF to Paul
 Int: ‘Marie will make Paul denounce him.’
- c. *Marie_i fera **se_i/_j** dénoncer (par) Paul_j.
 Marie make.FUT.3SG REFL denounce.INF by Paul
 Int: ‘Marie will make herself be denounced by Paul.’

These peculiarities are not specific to *se*, however. As noted already by Kayne (1975: 241) or Rezac (2011) and recently explored in depth in Sheehan (to appear), 1st and 2nd person clitics are subject to similar restrictions. The rest of this section will address the

availability of the dative preposition with 1st/2nd person and reflexive themes – the issue of clitic placement will be discussed in the following subsection (5.4.4.3).

Similarly to what we observed with reflexives, the dative preposition *à* on the causee is disallowed when the theme is 1st/2nd person. When the causee appears without *à*, the 1st/2nd person may only be interpreted as the causee and not as the theme, mirroring the patterns observed with the reflexive.

- (93) a. Marie **le** fera embrasser à Paul.
 Marie 3MSG.ACC make.FUT.3SG kiss.INF to Paul
 ‘Marie will make Paul kiss him.’
- b. *Marie **me/te** fera embrasser à Paul.
 Marie 1SG/2SG make.FUT.3SG kiss.INF to Paul
 ‘Marie will make Paul kiss me/you.’
- c. Marie **me/te** fera embrasser Paul.
 Marie 1SG/2SG make.FUT.3SG kiss.INF Paul
 ‘Marie will make me/you kiss Paul.’
 *‘Marie will make Paul kiss me/you.’

In other words, whenever there is a dative causee, the theme cannot be 1st/2nd person or reflexive. This can be seen in (90b) and (93b), in which an *à*-marked dative causee with a 1st/2nd /reflexive theme yields ungrammaticality, but also in (91) and (93c), in which the interpretation of 3rd person *Paul* as the causee in the presence of a 1st/2nd /reflexive argument is impossible. Conversely, a 1st/2nd /reflexive causee and a 3rd person theme is unproblematic, as the available interpretations of (93c) and (91) illustrate. This type of restriction is reminiscent of the person restrictions observed for double object constructions, in which a direct object cannot be 1st/2nd /reflexive in the presence of an indirect object clitic, but the reverse is allowed. This is shown in the tables below, which show the parallel between person restrictions in ditransitives and in FI causatives.

Table 5.7: PCC in ditransitives

IO	DO	
3	3	✓
1/2/REFL	3	✓
3	1/2/REFL	✗
1/2/REFL	1/2/REFL	✗

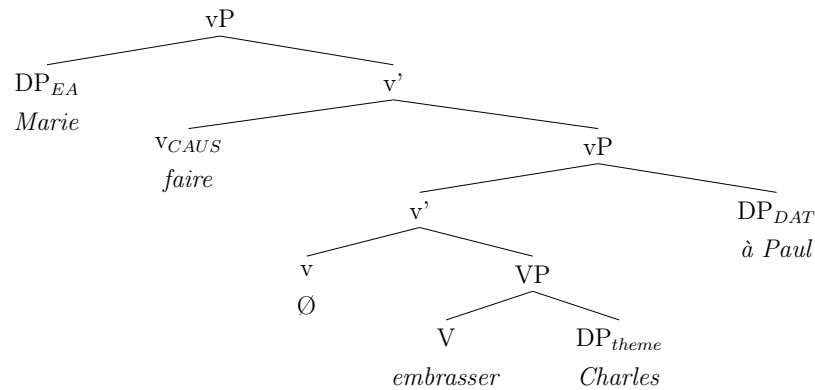
Table 5.8: PCC in causatives

Causee	Theme	
3	3	✓
1/2/REFL	3	✓
3	1/2/REFL	✗
1/2/REFL	1/2/REFL	✗

The person restriction observed in FI causatives can be shown to follow from an intervention effect of the dative causee for licensing, exactly in the same way as with DOCs. To see this, let us consider the proposed structure of FI causatives. We already know from the binding facts in (88b) above that the causee in FI causatives is able to bind

a variable. To be able to so, it should c-command this variable. I again follow the analysis of Folli and Harley (2007), who analyze the causee in FI causatives as a dative à-marked DP. Following much of the literature on causatives cross-linguistically, this causee is taken to be introduced by an additional vP, of which it is the specifier. The proposed structure of FI causatives is introduced below: *faire* is the head of a causative voice head v_{CAUS} , that introduces the causer/external argument in its specifier and takes as its complement a small clause, i.e. another vP with a dative à-marked DP as its external argument.¹⁰ The theme is introduced as the complement of V.

(94) *Faire-infinitive (FI) causatives*

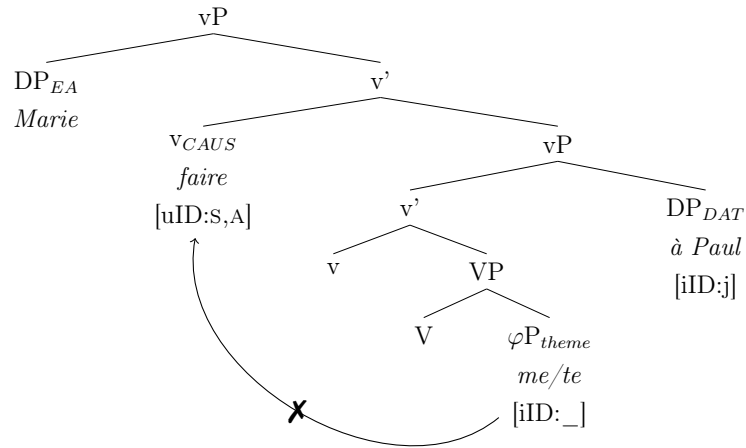


Given this structure, we can derive the restrictions on 1st, 2nd and reflexive clitics in FI causatives, starting with the ban on 1st/2nd person themes.

(95) *1st/2nd person theme in an FI causative*

- a. *Marie me/te fera embrasser à Paul.
 Marie 1SG/2SG make.FUT.3SG kiss.INF to Paul
 Int: ‘Marie will make Paul kiss me/you.’
- b.

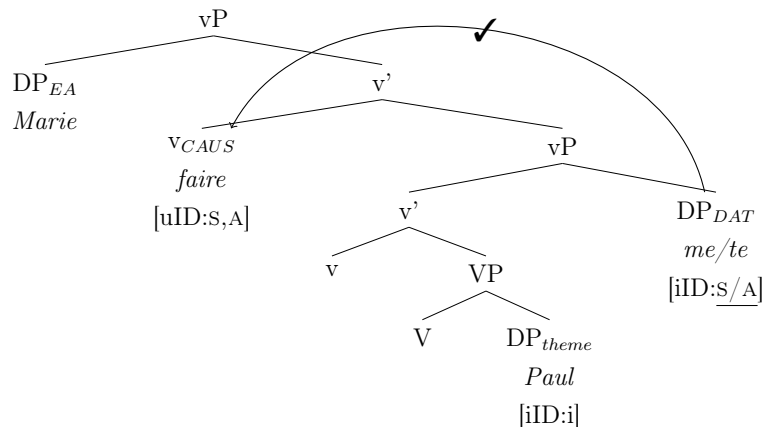
¹⁰Folli and Harley (2007: 208) assume right specifiers for v. I follow their proposal here for simplicity’s sake, but note that nothing in the present analysis depends on that particular assumption.



Assuming that the locus of person licensing (i.e. the speech act center) is the higher v_{CAUS} , the dative DP is an intervener between v_{CAUS} and the theme. Indeed, unlike in FP causatives, where the causee is embedded in a PP by-phrase out of which it does not c-command, the dative causee in FI causatives properly c-commands the theme, being in the specifier of the lower vP (see binding facts in (88b) for evidence that the causee c-commands the theme). For this reason, the unvalued $[iID:_]$ feature on the theme cannot be valued by v_{CAUS} , resulting in a licensing failure and in ungrammaticality. Conversely, consider a case where the theme is 3rd person and the causee 1st/2nd person..

(96) 3rd person theme, 1st/2nd person causee in an FI causative

- a. Marie me/te fera embrasser Paul.
 Marie 1SG/2SG make.FUT.3SG kiss.INF Paul
 ‘Marie will make me/you kiss Paul.’
- b.



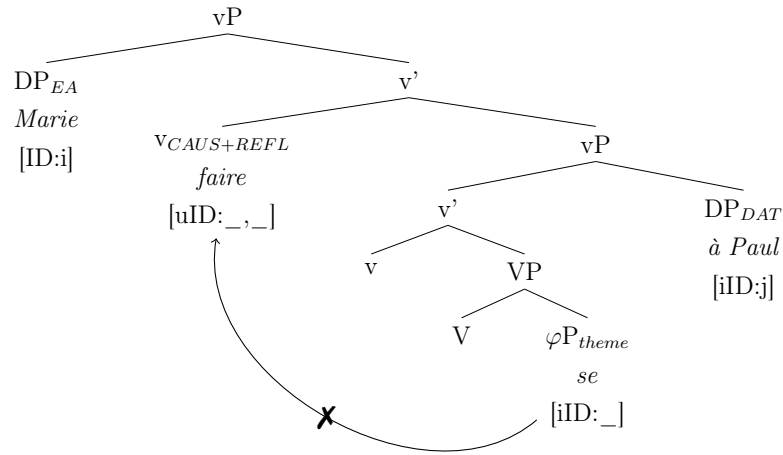
The item to be licensed is now higher in the structure, and the theme does not intervene between it and v_{CAUS} , allowing the *me/te* to be licensed.

The same mechanism derives the restrictions on reflexive themes. v_{CAUS} being a head

that introduces an EA and assigns accusative case, it is not incompatible with the features that make up a reflexive voice head. Therefore v_{CAUS} and v_{REFL} can coexist, i.e. a FI-causative can be reflexivized. However, when the reflexive is the theme, the dative causee intervenes between the reflexive theme and the $v_{CAUS+REFL}$ head, preventing valuation of the reflexive's [ID]-feature by the subject via v_{REFL} and valuation of both of v_{REFL} 's [ID]-features.

(97) *Reflexive theme in an FI causative*

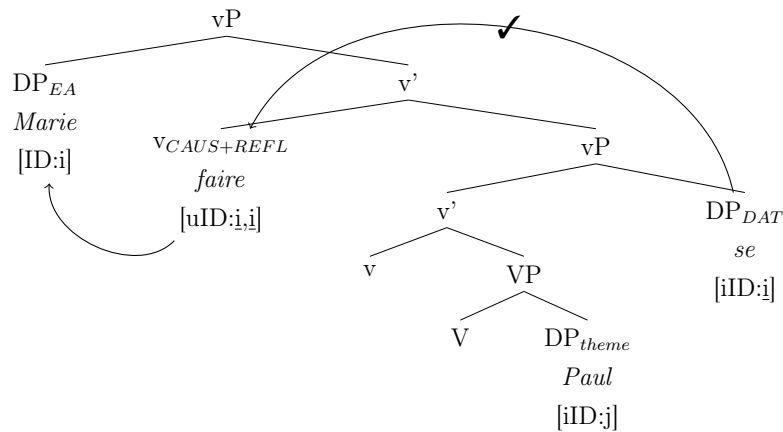
- a. *Marie_i se_i fera embrasser à Paul.
 Marie 3REFL make.FUT.3SG kiss.INF to Paul
 Int: 'Marie_i will make Paul kiss her_i.'
- b.



In contrast, a 3rd person theme with a reflexive causee is grammatical as expected, as the lower theme no longer needs licensing and the higher reflexive causee no longer suffers from the presence of an intervener.

(98) *3rd person theme, reflexive causee in an FI causative*

- a. Marie_i se_i fera embrasser Paul.
 Marie 3REFL make.FUT.3SG kiss.INF Paul
 'Marie_i will make herself_i kiss Paul.'
- b.



Finally, as is the case in DOCs, combinations involving two 1st/2nd persons, two reflexives or a 1st/2nd person and a reflexives are all ruled out (as per the strong PCC). This is expected given the proposed structures of datives pronouns in French, which are all embedded in a KP shell and accordingly all act as interveners for licensing of lower arguments.

- (99) a. *Marie me te fait embrasser.
 Marie 1SG 2SG make.PRS.3SG kiss.INF
 Int: 'Marie makes me kiss you.' *CAUSEE 1 > THEME 2
- b. *Marie_i se_i se_i fait embrasser.
 Marie 3REFL 3REFL make.PRS.3SG kiss.INF
 Int: 'Marie_i makes her_i kiss herself_i.' *CAUSEE REFL > THEME REFL
- c. *Marie_i se_i me/te fait embrasser.
 Marie 3REFL 1SG/2SG make.PRS.3SG kiss.INF
 Int: 'Marie_i makes herself_i kiss me.' *CAUSEE REFL > THEME 1

I would like to comment briefly on the nature of the intervener here. As emphasized by Sheehan (to appear), for intervention of the causee to occur, it is not necessary that both objects be clitics: the dative intervener may be a clitic, as in (100), but also a full DP, such as *à Paul*, as in (95a) and (97a) above.

- (100) *Marie me/te/se lui fera embrasser.
 Marie 1SG/2SG/3REFL 3SG.DAT make.FUT.3SG kiss.INF
 Int: 'Marie will make him kiss me/you/herself.'

This goes to showing that person effects are a matter of structural intervention, regardless of the size of the intervener. Dative causees, whether they are a cliticized pronoun or a full DP are necessarily higher than themes in FI causatives, resulting in intervention effects. In DOCs however, dative indirect objects are only higher in real DOCs, which surface exclusively when both objects are weak pronouns/clitics. When the dative is a full DP in a ditransitive, it is adjoined below the direct object, i.e. as a prepositional dative,

therefore in a non-intervening position (see also 3.2).

This subsection has shown that the restriction on the preposition *à* observed in reflexives of causatives is not specific to reflexives, but carries over to transitives with a 1st/2nd person theme, indicating that it should not be attributed to the alleged intransitivity of *se* reflexives, but rather is the manifestation of a licensing failure. This finding not only strengthens the observed parallelism between 1st/2nd person and reflexives in terms of licensing, but also validates the predictions of the analysis of *se*-reflexives around the role of a reflexive voice head.

5.4.4.3 ECM-causatives as a repair

One last property of *se* in causatives remains to be accounted for. Recall that reflexive clitics differed from other clitics in another aspect, namely in their possible attachment site. While a 3rd person clitic like *le* can only attach to *faire* in FI causatives, *se* can also attach to the infinitive.

- (101) a. Marie_i fera **se**_{*i/j} dénoncer (*à) Paul_j.
 Marie make.FUT.3SG 3REFL denounce.INF to Paul
 ‘Marie will make Paul denounce himself.’
 b. *Marie fera **le** dénoncer (à) Paul.
 Marie make.FUT.3SG 3MSG.ACC denounce.INF to Paul
 Int: ‘Marie will make Paul denounce him.’

Unsurprisingly, this possibility extends to 1st/2nd person clitics, which may also attach to the infinitive in an FI causative. This is most visible when the causee is pronominalized as in (102a). Judgements vary as to the availability of this strategy when the causee is a full noun, as in (102b).

- (102) a. Marie le fera **me/te** dénoncer.
 Marie 3MSG.ACC make.FUT.3SG 1SG/2SG denounce.INF
 ‘Marie will make him denounce me.’
 b. ?Marie fera **me/te** dénoncer (*à) Paul.
 Marie make.FUT.3SG 1SG/2SG denounce.INF to Paul
 ‘Marie will make Paul denounce me.’

Whenever the reflexive or 1st/2nd person clitic is attached to the infinitive, it is obligatorily interpreted as the theme. Furthermore, in the case of the reflexive, it must obligatorily be coindexed with the causee; the subject cannot be its antecedent.

The possibility of infinitive attachment for 1st and 2nd person clitics is accounted for by Sheehan (to appear) and Schifano and Sheehan (2018) as a repair-strategy. Indeed, a FI causative with a 1st/2nd person theme otherwise seems ineffable, given the ungrammaticality of (103a) and the interpretation of (103b).

- (103) a. *Marie *me/te* fera dénoncer à Paul.
 Marie 1SG/2SG make.FUT.3SG denounce.INF to Paul
 ‘Marie will make Paul denounce me.’
- b. Marie *me/te* fera dénoncer Paul.
 Marie 1SG/2SG make.FUT.3SG denounce.INF Paul
 ‘Marie will make me denounce Paul.’
 *‘Marie will make Paul denounce me.’

A sentence like (102a) thus allows the expression of a 1st/2nd person theme. According to [Rezac \(2011\)](#), [Sheehan \(to appear\)](#) and [Schifano and Sheehan \(2018\)](#), structures like (102a) are types of ECM constructions, which are more biclausal. Evidence for this first comes from the fact that in (102a), the causee *le* is accusative, and not dative (*lui*), while the theme remains accusative too. This suggests that these constructions involve two accusative assigning heads, unlike regular FIs (although it remains open whether accusative in FIs is assigned by the higher v_{CAUS} ([Landau 2002](#)) or the lower v ([Folli & Harley 2007](#))). Furthermore, evidence for the biclausality of these structures comes from clitic climbing possibilities. As (102a) shows, the accusative causee may climb while the accusative theme stays low. However, the reverse, i.e. climbing of the theme clitic only, is not possible in (104a), and neither is climbing of both clitics (under the reading where *me*=theme and *le*=causee), in (104b).

- (104) a. *Marie ***me***_{theme} fera ***le***_{causee} dénoncer.
 Marie 1SG.ACC make.PRS.3SG 3MSG.ACC kiss.INF
 Int: ‘Marie will make him denounce me.’
- b. *Marie ***me***_{theme} ***le***_{causee} fera dénoncer.
 Marie 1SG.ACC 3MSG.ACC make.PRS.3SG kiss.INF
 Int: ‘Marie will make him denounce me.’

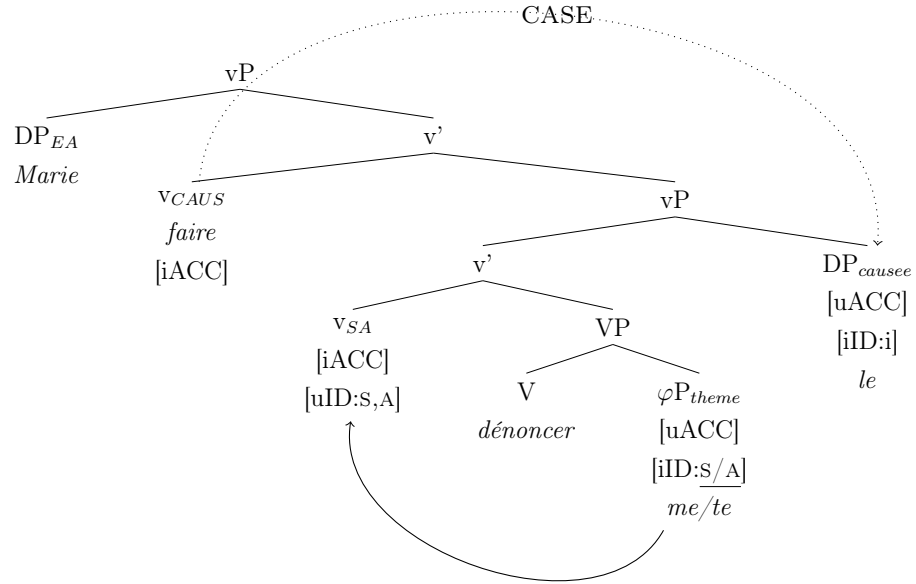
Similar facts hold of reflexives, suggesting that in both cases, raising of the theme is blocked (either because the lower v constitutes a barrier for the theme to move, e.g. because of phasehood of v , or because the theme simply has no incentive to do so).

- (105) a. *Marie ***se***_{theme} fera ***le***_{causee} dénoncer
 Marie 3REFL.ACC make.PRS.3SG 3MSG denounce.INF
 Int: ‘Marie will make him denounce herself.’
- b. *Marie ***se***_{theme} ***le***_{causee} fera dénoncer.
 Marie 3REFL.ACC 3MSG.ACC make.PRS.3SG denounce.INF
 Int: ‘Marie will make him denounce herself.’

A sentence like (106a), where the 1st/2nd clitic attaches to the infinitive and the causee bears accusative case, thus roughly has the structure in (106b), which is more biclausal in that both v ’s are full v ’s with complete feature sets. This means they are accusative case assigners, person licensors, as in (106b), and can be v_{REFL} , as will be shown in (107b).

(106) *ECM causative (1st/2nd theme)*

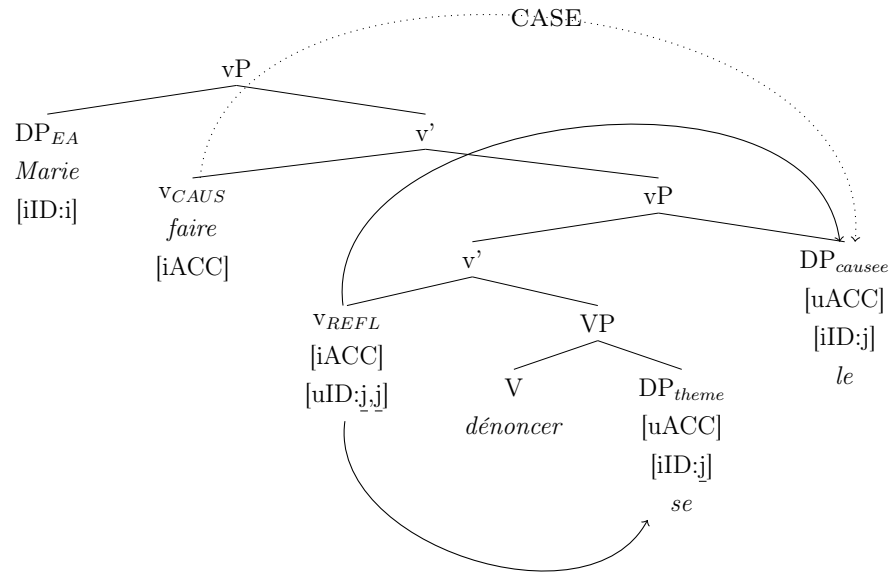
- a. Marie le fera me dénoncer.
 Marie 3MSG.ACC make.FUT.3SG 1SG.ACC denounce.INF
 ‘Marie will make him denounce me.’
- b.



Since the lower *v* is able to take care of case and person licensing, the causee is no longer an intervener for licensing by the higher *v*, being in the specifier of that lower *v*. Similarly for reflexives, case assignment and reflexivization can take place in the lower *vP*. The prediction, which is borne out, is that in this configuration *se* can only be coindexed with the specifier of the lower *vP*, given the locality of the arguments. The sentence in (107a) can thus only mean *Marie_i will make him_j denounce himself_j*, where the causee and the theme are coreferent.

(107) *ECM causative (reflexive theme)*

- a. Marie_i le_j fera s'_{j/*i} dénoncer.
 Marie 3MSG.ACC make.FUT.3SG 3REFL.ACC denounce.INF
 ‘Marie_i will make him_j denounce himself_j.’
 *‘Marie_i will make him_j denounce her_i.’
- b.



Like in a regular transitive construction, the theme anaphor unvalued probes up, and encounters v_{REFL} 's unvalued [ID]-features, which further probe up, encountering the next c-commanding argument, i.e. the causee that sits in the specifier of v_{REFL} . Both of v_{REFL} 's [ID]-features and the anaphor's subsequently get valued through feature sharing, resulting in a converging derivation. Importantly, such structures allow us to see that the local subject-orientation of reflexives does not rely so much on the notion of subjecthood as on the fact that external arguments licensed in Spec,vP, which causees in ECM-causative are, are the closest c-commanding goals for reflexivization as upward [ID]-agreement through v_{REFL} .

Infinitive attachment for *se* reflexives and 1st and 2nd person clitics is therefore licensed by a different structure than regular FI causatives, that acts as a repair strategy which allows the licensing of 1st/2nd and reflexive themes, otherwise impossible in FI causatives. While in standard FIs, only the higher v is an active case assigner and the lower v is defective (in the sense that it cannot assign accusative to the theme, cannot be a speech act center or be reflexivized), in these ECM constructions both v 's are fully active transitive v 's, creating two separate licensing and reflexivization domains.

Wrapping up this section, a thorough investigation of the behavior of reflexive clitics in causatives have uncovered the following facts. First of all, reflexives in *faire-par* (FP) causatives pattern together with transitives, as expected if *se* is pronominal and v_{REFL} transitive. The differential behavior of reflexives in *faire-infinitif* (FI) causatives is paralleled by 1st and 2nd person clitics. The ungrammaticality of a dative à-marked causee when the theme is 1st/2nd person or reflexive is the result of intervention of the causee for person licensing or reflexivization by the higher v_{CAUS} . The ability of reflexive clitics to

attach to the infinitive in FI causatives, once again paralleled with the 1st and 2nd person clitics, is the result of a repair strategy in which the causative restructures and becomes a bi-clausal, ECM-type construction in which the theme gets licensed by the lower vP and the causee receives accusative case by the higher vP. The differential behavior of reflexives in causatives thus does not result of their alleged intransitivity, but falls into place once we assume that reflexives must be licensed in the same way as 1st and 2nd person.

So far, this chapter has addressed the controversial syntactic status of *se* reflexives, and shown that there is substantial evidence to analyze them as transitive constructions, contra previous accounts. Accordingly, section 5.3.2 has offered a syntactic analysis centered around a reflexive voice head, and articulated the role of [ID]-features within this structure. In this section, I applied the analysis proposed in chapter 4 to PCC-effects with French 1st/2nd person pronouns and reflexives in DOCs, showing that a similar analysis can also be extended to causative constructions. Overall, this chapter has demonstrated that an analysis of reflexive binding and person licensing in terms of [ID]-features allows us to derive not only the restrictions on 1st/2nd person and reflexives in DOCs, but also the general syntax of *se* reflexives in French. In the last section of this chapter, I will address how the analysis provided for French can extend to neighbouring Romance languages, which do not display PCC-effects with their reflexives. Taking the case of Italian, I will show that this language displays a cluster of properties that not only do not align with those of French, but also do not seem to obey any consistent generalizations. I will nevertheless propose several hypotheses that could be explored in order to capture the Italian data.

5.5 Comparing *se* and *si*: the Italian puzzle

The analysis proposed in this chapter successfully captures many key aspects of French reflexives. In this section, I discuss the case of the *si* reflexive in Italian, a close neighbour of French, which however reveals some surprising differences with French *se*. I will start by reviewing the commonalities between French and Italian reflexive constructions, showing that they both seem to be structured around a reflexive voice head. I will then address a key difference between *se* and *si*, namely the absence of PCC effects with reflexives in Italian. I will attempt to connect this property with another difference between Italian and French reflexives, namely the occurrence of past participle agreement with dative reflexives in Italian. Based on this constellation of facts, I will propose three possible lines of analysis that could account for the differences between French and Italian. Finally, I will address two remaining puzzles concerning the comparison between French *se* and Italian *si*. The first one concerns the behavior of reflexives in Italian causatives, which unexpectedly obey the PCC in causatives, despite being insensitive to it otherwise. The second pertains to

the apparent correlation in Romance between weak PCC and insensitivity of reflexives to the PCC.

5.5.1 *Si* and other voices

Italian *si* and French *se* are often treated on a par in the literature, due to their numerous similarities. *Si* and *se* reflexives indeed share several of the characteristics that have been used as arguments for their intransitivity in 5.2.2, and which I have argued in 5.3.3 can be attributed to the presence of a reflexive voice head.

First of all, like French, Italian *si*-reflexives are incompatible with passivization: *se/si* cannot be coreferent with the subject of a verb that has undergone passivization, as illustrated in the following examples.

- (108) a. *Jean_i **se**_i sera livré (par Marie).
 Jean 3REFL be.FUT.3SG delivered by Marie
 Int: ‘Jean will be delivered to himself by Marie.’ *French*
- b. *Gianni_i **si**_i è consegnato (da Maria).
 Gianni 3REFL be.PRS.3SG delivered by Marie
 Int: ‘Gianni will be delivered to himself by Maria.’ *Italian*

Se/si reflexives are also ungrammatical in raising-over-experiencer constructions, such as for instance with the verb *sembrare* ‘seem’, where the reflexive clitic cannot be coindexed with the raised subject.

- (109) a. *Jean_i **se**_i semble malade.
 Jean 3REFL seems sick
 Int: ‘Jean seems to himself to be sick.’ *French*
- b. *Gianni_i **si**_i sembra malato.
 Gianni 3REFL seems sick
 Int: ‘Gianni seems to himself to be sick.’ *Italian*

Italian reflexives, like French ones, are also local subject-oriented, and a direct object *si* may not be coindexed with the indirect object. Instead, the strong/emphatic reflexive *se stesso* must be used, parallel to the use of French *lui-même*.

- (110) a. Marie_i **se**_{i/*j/*k} montre Jean_j.
 Marie 3REFL show.PRS.3SG Jean
 ‘Marie shows Jean to herself/*himself.’
- b. Ben_i montre Jean_j à **lui-même**_{*i/j}.
 Ben shows Jean to himself
 ‘Ben_i shows Jean_j to himself_{*i/j}.’ *French*
- (111) a. Maria_i **si**_{i/*j/*k} mostra Gianni_j.
 Maria 3REFL show.PRS.3SG Gianni

‘Maria shows Gianni to herself/*himself.’

- b. Maria_i mostra Gianni_j a **se stesso**_{*i/j}.

Maria shows Giani to himself

‘Maria_i shows Gianni_j to himself_{*i/j}.’

Italian

Finally, Italian *si* reflexives share their morphology with other voices. For instance *si* is also used in middles and inchoatives, and the auxiliary *essere* is used with reflexives and passives alike.

- (112) a. La ragazza **si** è descritta.
the girl 3REFL be.PRS.3SG describe.PTCP.FSG
‘The girl described herself.’

Reflexive

- b. Quelle pizze **si sono** vendite bene.
these pizzas SE be.PRS.3PL sell.PTCP.FPL well
‘These pizzas sold well.’

Medio-passive

- c. La finestra **si** apre da sola.
the window SE open.PRS.3SG of alone
‘The window opened by itself.’

Inchoative

These properties are those that can be explained by the presence of a reflexive voice head, à la Ahn (cf. section 5.3.3), therefore suggesting that French and Italian have in common a structure headed by a reflexive voice. Although they can reasonably be argued to share this trait, *si* and *se* differ in other significant respects, which do not allow a uniform treatment of both languages.

5.5.2 *Si* and the PCC

Italian *si* crucially differs from French *se* with respect to a very central property, namely, its behavior in PCC contexts. Unlike in French, reflexives in Italian are not subject to the PCC.

As illustrated in the Italian examples below, *si* contrasts with 1st and 2nd person clitics in that it is licit as a DO in DOCs (shown here with 3rd person IOs).

- (113) *Italian*

- a. ***Mi/ti** gli presentano.
1SG/2SG.ACC 3SG.DAT introduce.PRS.3PL
Int: ‘They introduce me/you to him.’

*IO 3 > DO 1/2

- b. **Si** gli presentano.
3REFL 3SG.DAT introduce.PRS.3PL
‘They introduce themselves to him.’

IO 3 > DO REFL

- c. Glie=**la** presentano.
3SG.DAT=3FSG.ACC introduce.PRS.3PL
‘They introduce her to him.’

IO 3 > DO 3

Direct object *si* therefore seems to behave like another 3rd person. Similar observations can be made in Spanish and Romanian.

- (114) Ella **se** le entregó en cuerpo y alma.
 3FSG.NOM 3REFL.ACC 3MSG.DAT gave in body and soul
 ‘She gave herself to him in body and soul.’ *Spanish* (Rivero 2004: 498)
- (115) Maria mi/ti **s** a prezentat la petrecere.
 Mary 1SG/2SG.DAT 3REFL.ACC has presented at party
 ‘Mary has introduced herself to me/to you at the party.’ *Romanian* (Savescu 2007: 6)

Additionally, when used as an indirect object, *si* intervenes for the licensing of a 1st or 2nd person DO. This can be seen in the following sentence, which involves the combination of a reflexive and a 1st/2nd person clitic.

- (116) **Mi/ti** **si** presentano.
 1SG/2SG.DAT/*ACC 3REFL introduce.PRS.3PL
 ‘They introduce themselves to me/you.’ IO 1/2 > DO REFL
 *‘They introduce me/you to him.’ *IO REFL > DO 1/2

Although case is not overt on reflexives and 1st and 2nd person clitics and therefore their respective cases cannot be provided from morphology, they can be inferred by their interpretation. The sentence in (116) is only acceptable if the 1st/2nd person pronoun is interpreted as the IO; in other words, the DO cannot be 1st/2nd person, as expected in classical 1st/2nd person PCC-effects. The fact that *mi* or *ti* cannot be interpreted as the DO follows from if one assumes that *si*, interpreted like the IO, intervenes for person licensing.¹¹

The fact that *si* is not subject to the PCC, but nevertheless able to intervene for 1st/2nd person licensing, suggests that it behaves like other 3rd person clitic pronouns in

¹¹The observation that reflexives are not subject to the PCC in is reinforced by the well-know observation that for some speakers of Catalan and Spanish, PCC-effects with 1st and 2nd person direct objects are relaxed when these are used as reflexives.

- (i) ?A la Roser, me li vaig declarar ahir.
 to the Roser, 1SG.REFL.ACC 3SG.DAT AUX declare yesterday
 ‘I declared myself (my love) to Roser yesterday.’ *Catalan* (Bonet 1991: 193)

This however does not hold of Italian, in which a 1st/2nd reflexive remains ungrammatical when combined with a 3rd person dative.

- (ii) *Gli mi / mi gli sono rivelato.
 3SG.DAT 1SG.REFL.ACC / 1SG.REFL.ACC 3SG.DAT PRS.1SG reveal.PTCP
 Int: ‘I revealed myself to him.’ *Italian* (Bianchi 2006)

the language. Given the analysis developed for French in this chapter and more generally the proposal sketched in chapter 4, one might conclude that *si*, unlike *se*, is not [ID]-deficient, therefore behaving like a non-context-sensitive 3rd person pronoun. This would raise the question of why, despite their similarities, *si* and *se* should be featurally different. Before reaching this conclusion however, one should consider other unexpected properties of Italian *si*, among which past participle agreement facts and weakness of the PCC, which allow us to speculate on other possible scenarios.

5.5.3 Past participle agreement with dative *si*

First of all, French *se* and Italian *si* do not behave alike with respect to past participle agreement (PPA). To see this, let us first get a sense of the system of Italian PPA, which largely parallels that of French. Past participles agree in number and gender, according to the paradigm summarized in table 5.9.

Table 5.9: Past participle agreement paradigm in Italian (*descrivere* ‘to describe’)

	M	F
SG	descritt- o	descritt- a
PL	descritt- i	descritt- e

Like their French counterparts, Italian past participles do not agree with in-situ objects, as shown in (117). They do agree with preverbal clitics, and like in French are sensitive to case distinctions: agreement only obtains with accusative clitics, and not with dative clitics.

- (117) Ho mangiat-o/*a la mela.
have.PRS.1SG eat.PTCP-MSG/*FSG the apple
‘I have eaten the apple.’ *In-situ DP object*
- (118) **Le** abbiamo salut-e.
3FPL.ACC have.PRS.1SG greeted-PTCP-FPL
‘We have greeted them.’ *Preverbal accusative clitic*
- (119) (Tu) **ci** hai scritt-o/*i.
2SG.NOM 1PL.DAT have.PRS.2SG written.PTCP-MSG/*MPL
‘You have written to us.’ *Preverbal dative clitic*

Italian past participles also agree with raised objects, such as subjects of unaccusatives or passives.

- (120) **Le ragazz-e** sono arrivat-e.
the girls-FPL are arrived.PTCP-FPL

‘The girls have arrived’

Unaccusative

- (121) **Le ragazz-e** sono state arrestat-e.
 the girls-FPL are been arrested.PTCP-FPL
 ‘The girls have been arrested.’

Passive

The only point of divergence with French is that extracted wh-objects do not trigger agreement in Italian, while they do in French.

- (122) a. **Le ragazz-e** che ho vist-o/*e.
 the girls-FPL that have.1SG see.PTCP-MSG/*FPL
 ‘The girls that I have seen.’ *Extracted wh-object (relative)* (Nguyen 2014: 15)
- b. **Quanti libri** hai lett-o/*i?
 how.many.M.PL book.M.PL have.PRS.2SG read.PTCP-MSG/*MPL
 ‘How many books did you read?’ *Wh-question* (Nguyen 2014: 9)

The following table sums up the past participle agreement facts for French and Italian.

Table 5.10: Past participle agreement in French and Italian

	French	Italian
In-situ objects	no	no
Raised internal arguments (passives, unaccusatives, middles)	yes	yes
Accusative clitics	yes	yes
Dative clitics	no	no
Extracted wh-objects	yes	no

Now comparing the behavior of French and Italian reflexives with regard to PPA, a striking asymmetry is revealed. Recall that in French, past participles agree with direct object *se*, but not with indirect object *se*, which constitutes crucial evidence that *se* has case (respectively accusative or dative).

- (123) a. Lucie **s’** est décrit-e/*ø comme timide.
 Lucie.NOM 3REFL.ACC be.3SG describe.PTCP-FSG/*MSG as shy
 ‘Lucy described herself as shy.’ *PPA with direct object reflexive*
- b. Lucie **s’** est remis-ø/*e le prix.
 Lucie.NOM 3REFL.DAT be.3SG give.PTCP-MSG/*FSG the prize.ACC
 ‘Lucy gave herself the prize.’ *No PPA with indirect object reflexive*

In contrast with French, in Italian, while direct object *si* expectedly yields covarying

PPA, so does indirect object *si*, as illustrated in (124b). In other words, indirect object reflexives in Italian apparently trigger PPA.

- (124) a. Le ragazz-e **si** sono guardat-e/*o allo specchio.
 the girls.FPL 3REFL.ACC are looked-PTCP-FPL/*MSG in.the mirror
 ‘The girls have looked at themselves in the mirror.’ *PPA with direct object reflexive*
- b. Lucia **si** è dat-a/*o un premio.
 Lucia 3REFL.DAT be.3SG give.PTCP-FSG/*MSG a prize.ACC
 ‘Lucy gave herself the prize.’ *PPA with indirect object reflexive*

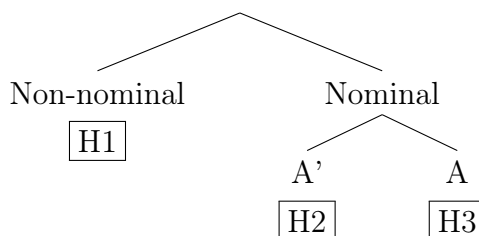
The asymmetry between the languages is surprising, given that they otherwise pattern alike in almost all respects when it comes to PPA, and seems to suggest that Italian *si* does not bear case, unlike French *se*.

5.5.4 Three hypotheses for Italian *si*

It thus appears that Italian *si* displays the following behaviors: (i) its case, if it has any, is irrelevant for φ -agreement, (ii) it is insensitive to the PCC and (iii) it nevertheless seems to intervene for licensing of PCC-sensitive 1st/2nd person pronouns. I will sketch out three hypotheses that could account for this cluster of properties. They are listed and summed up in the tree below. However, as will become clear, none of them is entirely satisfying.

- (125) a. **Hypothesis 1:** *si* is not a nominal element, but rather the spell-out of a functional head
 b. **Hypothesis 2:** *si* is nominal, but not in an argument position
 c. **Hypothesis 3:** *si* is nominal and in an argument position, but its featural make-up differs from *se*

(126)



Hypothesis 1: *si* is not nominal A strong hypothesis to account for the behavior of Italian *si* would be to assume that unlike French *se*, Italian *si* is simply not a nominal argument at all, and does not have any of the properties that one would expect from a

nominal object of the verb. Instead, *si* could for instance be the spell-out of a functional element such as the reflexive voice head. Specifically, *si* would not bear any case or φ -features, making it invisible for PPA. Instead of agreeing with the reflexive, the participle would agree upward with the closest goal, i.e. the nominative subject, resulting in covarying φ -agreement regardless of whether the DO or the IO is reflexivized. Similarly, if one assumes that *si* does not bear any [ID]-feature, it is not expected to be PCC-sensitive, therefore accounting for the behavior of direct object *si* in double object constructions. However, a challenge for this hypothesis is that indirect object *si* intervenes for the licensing of 1st/2nd person pronoun. Assuming that the licensing of context-sensitive items is achieved by [ID]-agreement with v, a reflexive indirect object would have to bear valued [ID]-features in order to intervene between a unvalued DO and v. This is in direct contradiction with the postulate that *si* is non-nominal and therefore bears none of the features associated with nominal arguments, including case, φ and [ID]-features.

Hypothesis 2: A vs A' A perhaps weaker hypothesis concerns the position of *si* reflexives: one could argue that although they are nominal elements bearing case, φ and [ID]-features, *si* reflexives are not accessible for Agree operations because they are not in an argument (A) position. Recall that Italian PPA diverges from French in one other respect, namely the impossibility to agree with wh-extracted objects, which is possible in French. Based on this fact, one could generalize that Italian disallows φ -agreement with items in A' positions, and hypothesize that reflexive *si* is in such an A' position, resulting in the impossibility for it to constitute a proper φ -goal. While this hypothesis is plausible as far as φ -agreement goes, it is unclear how it would deal with the PCC-insensitivity of *si*. Indeed, if one wishes to maintain an approach of context-licensing and reflexive binding in terms of [ID]-features, a direct object *si*, albeit in an A'-position, would need to value its unvalued [ID]-feature against v, which should result in PCC effects in the presence of an intervener, contrary to facts. A first alternative would be to assume that reflexive binding in Italian simply occurs without the support of [ID]-features, thereby significantly reducing the power of the analysis proposed in this thesis. A second equivalent possibility would be to assume that *si*, like other 3rd person pronominals, is born with valued [ID]-features, and therefore is not context-sensitive in the sense described above.

Hypothesis 3: a different featural make-up Finally, a third hypothesis is that, albeit both pronominal in nature and in standard A-positions, French *se* and Italian *si* differ in terms of their featural content and their internal structure. In order to account for the PPA facts, one could for instance assume that unlike their French counterparts, *si* reflexives can never be topped by a KP layer, therefore leaving their φ features (on their DP or φ P) accessible at all times, without case-distinctions. While this possibility accounts straightforwardly for the PPA facts, the behavior of *si* in PCC-contexts proves

more challenging. As was the case under the previous hypothesis, one is reduced to parametrize [ID]-valuedness on reflexives, such that it never needs to be valued in Italian. Given the theory of strong vs weak pronominals outlined in 4.3.2, one hypothesis could be that *si* is in fact not structurally weak, but always comes with a DP layer allowing inherent valuation of its unvalued [ID].

None of the above hypotheses appears entirely satisfying, and more research is needed in order to satisfactorily account for the seemingly inconsistent cluster of properties of Italian *si*.¹² As the next section will show, while these scenarios barely manage to account for the core properties of *si* introduced until now, two remaining puzzles come to complexify the picture.

5.5.5 Two last puzzles: *si* in causatives and the weak/strong PCC

Italian reflexives display a last puzzling property, which does not seem to fit with any of the facts described above. Although *si* does not obey the PCC in DOCs, it does so in FI-causatives, where it patterns together with 1st and 2nd person themes.

- (127) a. Enrico **lo** ha fatto criticare a Maria.
 Enrico 3SG.ACC have made criticize.INF to Maria.
 ‘Enrico made Maria criticize him.’
 b. *Enrico **si** ha fatto criticare a Maria.
 Enrico 3REFL have made criticize.INF to Maria.
 Int: ‘Enrico made Maria criticize him.’ (Baauw & Delfitto 2005: 175)
 c. ***Ti** ho fatto picchiare a mio fratello.
 2SG.ACC have.1SG made beat to my brother
 Int.: ‘I made my brother beat you.’ (Sheehan to appear: 11)

In FI-causatives, reflexive *si* thus no longer pattern with 3rd person pronouns, like they do in DOCs, i.e. classical PCC contexts, but with 1st/2nd person, as in French. The same pattern is reported in Spanish (Sheehan to appear; Torrego 2010) and Catalan (Bonet 1991; Sheehan to appear).

These facts are puzzling with regard to the facts described of Italian up until now. Why would *si* reflexives obey the PCC in one context but not in another? A potential explanation could be found by looking outside of the PCC domain. I have established earlier that the Italian data point towards the presence of a voice head, excluding combinations with other voices such as passives or raising-over-experiencer. Based on this, one could conjecture, as also suggested by Folli and Harley (2007: fns.1&10), that the ban

¹²In Raynaud (2018), I developed the idea that the availability of PPA with dative reflexives in Italian could be linked to a Multiple Agree parameter in the language, which, following Anagnostopoulou (2005), underlies the fact that Italian has the weak PCC. This hypothesis cannot straightforwardly be carried over to an analysis such as the one developed in the present thesis, which dissociates person licensing from φ -agreement.

on reflexives in FI causatives could be caused not by the impossibility to license [ID] on theme reflexives, but rather by the incompatibility of a causative voice and a reflexive voice. This conclusion is supported by the observation that Italian FI causatives appear to block the appearance of reflexive *si*, even when it is the causee; In the following example, which contains the clitic *si* and an accusative theme *il cane* ‘the dog’, *si* cannot be interpreted as a reflexive causee, but only as an impersonal *si*.¹³

- (128) Gianni *si* fa lavare il cane.
 Gianni SI make.PRS.3SG wash.INF the dog
 ‘Gianni makes someone wash his dog.’ *Impersonal si causee*
 *‘Gianni_i makes himself_i wash the dog.’ **Reflexive causee*

A ban on reflexive causee in FI-causatives is not predicted if restrictions on *si* result from a licensing failure due to intervention, since causees are higher than themes and should thus be able to be freely bound by the subject.

Finally, I would like to comment on an intriguing correlation in Romance, although as far as I can tell unrelated to the above facts, between the PCC-sensitivity of reflexives and the strength of the PCC in the language. Indeed, as developed at length in this chapter, French appears to be the only West-Romance language with PCC-sensitive reflexives, while in neighbouring Italian, Spanish or Catalan, reflexives do not show any such restrictions in ditransitives. Interestingly, French is also the only one of these languages that has the strong PCC, while Italian, Spanish and Catalan all have the weak version of the constraint. One could thus hypothesize a link between the two parameters. However, such a causal relation between the two seems to be ruled out by two observations. Firstly, looking outside of Romance, it appears that there exist languages with the weak PCC and PCC-sensitive reflexives, contradicting the generalization above. This is for instance the case of the Bantu language Swahili, which will be analyzed in detail in the next chapter. Furthermore, from a theoretical standpoint, it is unclear what this link would be. Indeed, I have suggested that the contrast between strong and weak PCC may be due to the differences in the featural make-up of datives; there is no reason to assume that this parametrization would impact the status or featural make-up of accusative reflexives in the language. Other accounts do not fare much better in this respect. Anagnostopoulou’s (2005) account is based on a Multiple Agree parameter: languages that allow Multiple

¹³A similar example is provided by Baauw and Delfitto (2005:176), albeit without an overt oblique argument, which is typically analyzed as an instance of FP-causative (Burzio 1986).

- (i) Enrico *si* è fatto lavare.
 Enrico SI be.PRS.3SG make.PTCP wash.INF
 ‘Enrico_i made someone wash him_i.’ *Impersonal si causee*
 * ‘Enrico_i made himself_i wash someone/something.’ **Reflexive causee*

Agree for the same feature have the weak PCC (e.g. Italian), whereas languages which don't have the strong PCC (e.g. French). It is not clear how the availability of Multiple Agree can account for the PCC-insensitivity of *si* reflexives, as one would expect a feature clash between a [-PARTICIPANT] reflexive DO and a [+PARTICIPANT] 1st/2nd person IO, contrary to facts (see example (116) above). Accounts based on probe relativization (e.g. Nevins 2007) are expected to face the same challenge. It thus appears that despite initial indications, no link can be established between PCC-sensitivity of reflexives on the one hand and strength of the PCC on the other.

In summary, Italian reflexives have the cluster of properties described in the following table, where they are put side by side with the patterns of French.

Table 5.11: Reflexives in French and Italian

	Italian	French
<i>Voice</i>		
Reflexives in passives	no	no
Reflexives in ROE	no	no
Subject orientation	yes	yes
Shared morphology	yes	yes
<i>PPA</i>		
PPA with acc. reflexives	yes	yes
PPA with dat. reflexive	yes	no
<i>PCC</i>		
PCC effects with acc. reflexives	no	yes
Intervention effect with dat. reflexives	yes	yes
PCC effects with reflexives in causatives	yes	yes
Strong PCC with 1 st /2 nd	no	yes

This section has brought together different clusters of properties, and explored several lines of analysis that could allow for an explanation of this complex dataset. More research is needed in order to establish with certainty the syntactic status of reflexives in Italian and in other Romance languages.

5.6 Conclusions

The study of person restrictions with reflexives in French has occasioned in this chapter a rethinking of their syntax. Indeed, these restrictions can only be understood against a wider background that answers basic questions about the structure and features of *se*-reflexives. With PCC-effects as a starting point, this chapter first reviewed the alleged

intransitive-like properties that prompted many analyses of *se*-reflexives as intransitives. However, I argued that several elements allow us to rebut such analyses. First of all, a converging set of facts introduced in 5.2.3 demonstrated that *se* has case, pointing towards an argumental status. Additionally, central properties of *se*, such as its local subject-orientation, were used to argue for the presence of a reflexive voice head in *se* reflexives, whose syntax straightforwardly explains the intransitive-like properties of these constructions. The proposal introduced in 5.3.2 which treats *se* reflexives as transitive constructions headed by a reflexive voice head successfully accounts for all the distributional restrictions on *se*. Furthermore, it is shown to be compatible with an analysis of binding as [ID]-agreement, which allows us to account for the PCC-effects in the terms outlined in chapter 4. This is demonstrated in details for 1st/2nd person and for reflexives in section 5.4, and further extended to the domain of so-called *faire-infinitive* (FI) causatives, thereby accounting for two classes of restrictions, respectively on 1st/2nd person pronouns and on *se* reflexives that had previously only been studied in isolation. Finally, section 5.5 looked at Italian, a close neighbour of French and yet only an estranged cousin in terms of its reflexive properties. This section provided an overview of the patterns found in Italian and in other Romance languages, and tentatively proposed three possible lines of analyses to deal with the disparities. Overall, this chapter contributed a detailed case study of a PCC-sensitive reflexive, and informed the general theory of context-linking provided in chapter 4, in particular with regard to the role of reflexive voice, and the featural composition of *se*. The next chapter will consider the case of a lesser-known case of PCC effect with reflexives which differs from French in many respects, namely the Swahili language.

Chapter 6

Swahili anaphoric agreement and the Person-Case Constraint

In chapter 5, I discussed the behavior of the French reflexive *se* in DOCs, which parallels that of 1st and 2nd person pronouns. This pattern is well-known in French, and has been reported and discussed in various works. However, the parallel between 1st/2nd person and reflexives in the PCC-literature is usually limited to the case of French, and as observed at the end of the previous chapter is not found in other Romance languages. A significant exception is Baker (2008), who in the appendix to his chapter 4, briefly evokes the syntactic parallels between 1st/2nd person and reflexives in a variety of languages. Baker (2008: 151) highlights that in the Bantu language Chichewa, as well as in Greenlandic and Slave, special anaphoric forms of agreement has the same categorial distribution than 1st/2nd person agreement. Additionally, he mentions that the PCC is reported to hold for 1st/2nd person and reflexives forms alike in Southern Tiwa, a Kiowa-Tanoan language.¹

This chapter addresses these claims by showing that reflexives pattern with 1st and 2nd person beyond French and in a language that has a special form of verbal agreement for anaphoric objects, labelled here *anaphoric agreement* (following Woolford 1999). Anaphoric agreement is understood as the reflex, on an agreeing functional head such as *v*, of agreement with a reflexive anaphor. The study of anaphoric agreement thus holds important insights on the featural content of anaphors: indeed, it reflects, and as I will argue mediates, the features of the anaphor itself, and therefore constitutes a privileged environment for their observation.

The empirical focus of this chapter is the Bantu language Swahili. Swahili anaphoric agreement offers fresh insights on the issues raised in this thesis, by not only confirming that reflexives pattern with 1st/2nd person in PCC-contexts, but also providing evidence for [ID] over φ in the featural make-up of anaphoric agreement. The contribution of Swahili

¹The behavior of Icelandic *sig* in dative-nominative constructions has also given rise to similar claims (Anagnostopoulou 2005, Stegovec), and is discussed in chapter 9.

is thus a crucial one: it constitutes a powerful argument in favor of the existence, both at the PF and LF interfaces, of referential [ID]-features, whose interactions in binding relations can be reflected as agreement morphemes on the functional heads mediating such relations. Anaphoric agreement thus represents evidence of the role of [ID]-features in binding, as well as the central role played by reflexive voice heads in languages like French or Swahili.

The chapter is organized as follows. Section 6.1 introduces anaphoric agreement, and starts by establishing that it should be treated as a genuine agreement marker, instead of an incorporated reflexive pronoun or a derivational morpheme (e.g. a valency-affecting head), before looking closely at its featural composition. Based on this, section 6.2 proposes an analysis of anaphoric agreement. Finally, having established the status of anaphoric agreement, section 6.3 introduces novel data showing that Swahili anaphoric agreement is subject to PCC effects in DOCs in the same way as 1st and 2nd person object agreement markers, thereby confirming the patterns found in French. I propose detailed derivations of person and reflexive licensing in terms of context-linking, i.e. [ID]-agreement, showing how the proposal formulated in chapter 4 applies to Swahili. I also show that in accordance with Baker (2008) claims for Chichewa, Swahili anaphoric agreement has the same categorial distribution as 1st/2nd person agreement, although the import of this finding for a theory of person licensing should be nuanced.

6.1 Anaphoric agreement in Swahili

In order to comprehend the Swahili data and how it fits into the generalization that 1st/2nd person and reflexives pattern together in virtue of the CLR, one must first understand the syntactic status of the reflexivization strategy involved, namely anaphoric agreement. The first section of this chapter will thus take the time to introduce the Swahili verbal reflexive marker *-ji-*, which is the central focus of this chapter, and build a strong basis for its analysis as anaphoric agreement. Indeed, as will become clear in these pages, many questions arise when talking about Swahili reflexive morphology. Section 6.1.1 will first provide a general introduction to the verbal reflexive *-ji-*, and show that it straight away qualifies for an analysis as inflectional rather than derivational morphology. This qualification will immediately raise a second issue, particularly salient in the field of Bantu linguistics: are verbal reflexive markers in particular, but also verbal object markers in general really agreement markers, or do they instead instantiate a kind of incorporation or cliticized pronouns? Section 6.1.2 will not only argue, following a relatively large consensus, that Swahili object markers genuinely form agreement morphology, but also demonstrate that the reflexive marker *-ji-* passes the same diagnostics and also qualifies as an agreement marker. Having established the foundations for an analysis of *-ji-*, section 6.1.3 will zoom

in on the features reflected by this anaphoric agreement marker; it will conclude that *-ji-* can neither be analyzed as covarying φ -agreement nor as default agreement, and in fact cannot be treated in terms of φ -features at all.

The Swahili data, when not indicated otherwise, comes from original data collection undertaken by the author in 2017-2018. The data was collected in Brussels (Belgium) and Göttingen (Germany) with three native speakers of Swahili from different regions (the North Kivu region of the Democratic Republic of Congo and the Kilimanjaro region of Tanzania). Data was elicited during structured interviews using both judgement tasks and translations tasks.

6.1.1 The verbal reflexive marker *-ji-*

6.1.1.1 An overview of Swahili *-ji-* reflexives

One of the means of marking reflexivity in Swahili is through a verbal reflexive marker of the form *-ji-*, which is glossed RFM (for Reflexive Marker). As shown below, objects in Swahili can be co-indexed on the verb by an Object Marker (henceforth OM). In (1a), the class 1 object *Halima* is coindexed by the class 1 OM *-m(u)-*. When the object is an anaphor as in (1b), the OM is prohibited and replaced by the special reflexive marker *-ji-*. The RFM surfaces on the verb as a prefix, in the position of the object marker.²

- (1) a. Ahmed a- na- **m-** penda **Halima**.
 1Ahmed SM1- PRS- OM1- love 1Halima
 ‘Ahmed loves Halima.’
- b. Ahmed a- na- **ji**/*m- penda (**mwenyewe**).
 1Ahmed SM1- PRS- RFM/*OM1- love (himself)
 ‘Ahmed loves himself.’ (Vitale 1981:137)

As can be seen in (1b), the RFM can co-occur with an overt anaphor, *mw-enyewe* ‘self’. It can be omitted in the presence of the RFM, and in fact often is, its presence yielding an emphatic interpretation, like in the case of overt pronouns – consistent with the pro-drop character of Swahili. The use of *mw-enyewe* is in that sense similar to that of French *pro-même*. Its status is further discussed in 6.1.3.3.

The morpheme *-ji-* is invariant and may be found with antecedents of all person, number and noun classes, as illustrated in (2) and (3).

²Following the Bantuist literature, class is glossed on nominals as a number preceding the noun, e.g. *1Ahmed*, and on subject and object markers as a number directly following the abbreviation SM or OM, e.g. SM1, OM7. Person and number inflection on subject and object markers is glossed as per usual (1SG, 2PL), separated from SM/OM by a dot, e.g. SM.1SG, OM.2PL.

- (2) a. Ni- li- **ji-** ficha.
SM.1SG- PST- RFM- hide
'I hide myself.'
- b. U- na- **ji-** penda.
SM.2SG- PRS- RFM- love
'You love yourself.'
- c. A- li- **ji-** ona.
SM1- PST- RFM- see
'He/she saw his/herself.'
- (3) a. Tu- li- **ji-** ona.
SM.1PL- PST- RFM- see
'We saw ourselves.'
- b. Mu- li- **ji-** ona.
SM.2PL- PST- RFM- see
'You(pl) saw yourselves.'
- c. Wa- li- **ji-** ficha.
SM2- PST- RFM- hide
'They hid themselves.'

Finally, the reflexive marker is clause bound, and like the French reflexive clitic, obligatorily local subject-oriented. In (4a), in the presence of *-ji-*, only the subject and the indirect object can be interpreted as coreferent. *-ji-* cannot be used to derive coreference between the direct object and the indirect object; in this case, the verb will bear its normal object agreement, in this case class 1 *-mu-*, and the anaphoric object expressed using the emphatic reflexive *mwenyewe*, as in (4b).

- (4) a. Sheila_i a- li- **ji**_{*i/*j/*k*}- onyesha John_j.
1Sheila SM1- PST- RFM- show 1John
'Sheila_i showed John_j to herself_i/*himself_j.'
- b. Sheila_i a- li- **mu**_{**i/j/k*}- onyesha John_j **mwenyewe**_{*j*}.
1Sheila SM1- PST- OM1- show 1John self
'Sheila_i showed John_j to himself_j.'

Having given an overview of the general properties of the reflexive marker *-ji-*, I will now demonstrate that based on its distribution and its morphology, this marker should be analyzed as inflectional morphology, and not as a derivational, valency-reducing marker, thus justifying its interest for a theory of reflexive and pronominal licensing in terms of agreement.

6.1.1.2 RFMs are inflectional and not derivational morphology

RFMs, just like OMs, appear just before the verb stem, as can be seen in this schema representing the order of morphemes on the verb in Bantu.³

(5) *Bantu Verb Template*

NEG	SM	TAM	OM/RFM	VERB	PASS/CAUS/APPL/RCM	FV	PFS
1	2	3	4	5	6	7	8

³NEG = negation; SM = subject marker; TAM = tense aspect marker; OM = object marker; RFM = reflexive marker; PASS = passive; CAUS = causative; APPL = applicative; RCM = reciprocal marker; FV = final vowel; PFS = post-final suffix. The latter two markers, which are not relevant for our present purposes, will most often be omitted from glosses in this chapter.

- (6) Ha- tu- ta- m- pig- i- a kiboko
 NEG- SM.1PL- FUT- OM1- beat- APPL- FV whip
 ‘We shall not beat him with a whip.’ (Sikuku 2012: 2)

The preverbal position of the RFM, similar to that of OMs, offers grounds to assume that it is itself a kind of OM, rather than a separate reflexive voice head or a valence operator for instance. A similar observation is made by Kioko (2005) for Kikamba and Storoshenko (2016) for Shona, two related Bantu languages. Indeed, morphemes that affect the number of arguments that the verb takes commonly follow the verb stem in Bantu. Derivational morphemes, such as morphemes expressing causative, applicative or passive are all suffixes, as also shown in (5). Compare, for instance, the reflexive in (7) with the reciprocal construction in (8), encoded by means of the verbal suffix *-an-*.

- (7) Ahmed a- na- **ji-** penda (**mwenyewe**).
 1Ahmed SM1- PRS- RFM- love (himself)
 ‘Ahmed loves himself.’ (Vitale 1981: 137)
- (8) Ahmed na Halima wa- li- pend- **an-** a.
 1Ahmed and 1Halima SM2- PST- love- RCM- FV
 ‘Ahmed and Halima loved each other.’ (Hoekstra and Dimmendaal 1983: 69 in Woolford 1999: 265)

It is consequently reasonable to assume that the reciprocal morpheme *-an-* is a derivational morpheme that affects the valency of the verb by making the construction intransitive, given that there is also no overt object and no agreement marker in the OM slot. By contrast, given its preverbal position between the TAM marker and the verb, it appears unlikely that the reflexive *-ji-* is such a detransitivization marker or valence operator, unlike reciprocal *-an-* (pace Shiraki 2004).⁴

Furthermore, RFMs are in true complementary distribution with OMs, suggesting they share the same slot and the same function. Unlike some other Bantu languages, such as Sambaa or Chaga, Swahili can only express one OM, even in ditransitives. As (11a) illustrates, marking both the DO and the IO is ungrammatical, and only one object can be coindexed on the verb with an OM.

⁴Shiraki (2004) argues that *-ji-* affects the semantic structure of the predicate by reducing its valency from a diadic to a monadic predicate. He analyzes the anaphor *mwenyewe* as an emphatic or adverbial modifier, and not as the real anaphor. The analysis of Swahili proposed by Shiraki is thus very similar to analyses of French *se* as a valency-reducer: no real reflexive anaphor but a detransitivizing verbal operator that is morphologically realized (by *-ji-* in Swahili or *se* in French). This analysis is however challenged by the preverbal position of the RFM, as argued here. Furthermore, by analogy with French, the properties of Swahili, such as the local subject-orientation of the reflexive or its incompatibility with passives, do not necessarily warrant an explanation in terms of valency-reduction, but can be successfully accounted for using a Voice head approach such as Ahn (2015), as will be argued below.

(9) *Sambaa*: two OMs

Haafu n- ta- **chi-** **m-** homea.
 then SM.1SG- PRS- OM7- OM1- throw.APPL

‘And then I will throw it at him.’ (Riedel 2009: 27)

(10) *Chaga*: three OMs

Mangí n- á- lé- **í-** **kú-** **m-** zrúm- a
 1chief FOC- SM1- PST- OM9- OM16- OM1- send- FV

‘The chief sent him there with it’ (Moshi 1998 in Marten, Kula, and Thwala 2007: 297)

(11) *Swahili*: one OM

a. *Ni- li- **ki-** **m-** nunulia **mwanangu** **kitabu**.
 SM.1SG- PST- OM7- OM1- buy.APPL 1child.POSS.1SG 7book
 Int: ‘I bought it/something for my child.’

b. Ni- li- **m-** nunulia **mwanangu** **kitabu**.
 SM.1SG- PST- OM1- buy.APPL child.POSS.1SG 7book
 ‘I bought the book for my child.’ (Riedel 2009: 88)

If the RFM is a type of OM, we expect the RFM not to be able to co-occur with another OM or another RFM. And indeed, the OM and the RFM are in strict complementary distribution (pace Sikuku 2012 on Lubukusu RFMs). This is shown by the ungrammaticality of (12a), in which both the reflexive IO and the DO *kitabu* ‘book’ are coindexed on the verb.

- (12) a. *Ni- li- **ki-** **ji-** nunulia.
 SM.1SG- PST- OM7- RFM- buy.APPL
 Int: ‘I bought a book for myself.’
 b. Ni- li- **ji-** nunulia **kitabu**.
 SM.1SG- PST- RFM- buy.APPL 7book
 ‘I bought a book for myself.’ (Riedel 2009: 88)

Further, the following triplet shows the general inability of two OMs to co-occur or an RFM to co-occur with an OM or another RFM.⁵

⁵Note that the respective order of the OM and the RFM does not make any difference:

- (i) a. *Maria a-li-**ji-m-**chomea nyama
 1Maria SM1-PST-RFM-OM1-burn.APPL 9meat
 b. *Maria a-li-**m-ji-**chomea nyama
 1Maria SM1-PST-OM1-RFM-burn.APPL 9meat
 Int: ‘Marie grilled meat for herself.’ (Mwamzandi 2014: 135)

- (13) a. *Maya a- li- **mu-** **wa-** pend- ezesha.
 1Maya SM1- PST- OM1- OM2- like- CAUS
 ‘Maya made him like them.’ *OM+OM
- b. *Maya a- li- **mu-** **ji-** pend- ezesha.
 1Maya SM1- PST- OM1- RFM- like- CAUS
 ‘Maya made him like herself.’ *OM+RFM
- c. *Maya a- li- **ji-** **ji-** pend- ezesha.
 1Maya SM1- PST- RFM- RFM like- CAUS
 ‘Maya made herself like herself.’ *RFM+RFM

Given their complementary distribution, I argue that the OM and the RFM target the same functional slot, that of object marking.

Building on this parallelism, Woolford (1999) describes the verbal reflexive in Swahili as *anaphoric agreement*, i.e. a special type of agreement that occurs when its controller is anaphoric, and in particular reflexive. Although I adopt this terminology here, at first sight this characterization raises several questions: is the verbal reflexive marker truly an agreement marker, and if so, what are its properties and what features does it agree with? Can anaphoric agreement inform us about the featural content of anaphors and reflexives in particular? Finally, what is the status of anaphoric agreement vis-a-vis the Anaphor-Agreement Effect? Indeed, if anaphoric agreement is the reflex of φ -agreement of the anaphor with the verb, it would constitute a violation, or as claimed by Woolford (1999), an exception to the AAE. On the other hand, if it is not covarying φ agreement, does it rather qualify as a repair strategy?

This section will propose an answer to these questions. I will argue that the Swahili RFM *-ji-* is indeed an agreement marker, which morphologically expresses agreement in referential [ID]-features rather than φ -features, providing support for the presence of [ID]-features in the featural make up of reflexives. I will thus conclude that anaphoric agreement does not involve φ -agreement and accordingly, in section 6.2 I will propose a derivation of anaphoric agreement in terms of matching [ID]-features.

6.1.1.3 A terminological note

Before moving on to the discussion, a terminological note on anaphoric agreement is in order. *Anaphoric agreement* has been used in the literature to designate various phenomena, often with very divergent meanings. At least four uses are to be distinguished. The first one is the use made by Woolford (1999) and subsequent research on the Anaphor-Agreement Effect, which uses the term *anaphoric agreement* to talk about reflexive constructions such as those found in Bantu, where the object agreement marker on a verb surfaces with a special form when the object is a reflexive. I adopt Woolford’s understanding of the term, and will extend it further in chapter 8 to describe a larger array of cases

in which dedicated agreement markers show up on various functional heads, including C and D, when the controller is a reflexive anaphor.

This use of the term *anaphoric agreement* also encompasses, but is not limited to, the use of it made by Johns (1996). She uses the term to talk about what is otherwise known as *proximate* or *4th person agreement* on verbs and possessed DPs in Inuit, namely 3rd person agreement with a reflexive object, illustrated in (14b), as opposed to 3rd person agreement with a non-reflexive object, as in (14a). In chapter 8, I will argue, consistently with Johns' use of the term, that this is another case of anaphoric agreement in its larger sense.

(14) *Inuit* [Qairnirmiut] (Johns 1996:123)

- a. Anguti-p irni-**a** taku-j-a-a.
 man-ERG son-3SG.SG.ABS see-PTCP-TR-3SG.3SG
 'The man_i sees his_{*i/j} son.'
- b. Anguti-p irni-**ni** taku-j-a-a.
 man-ERG son-3SGREFL.SG.ABS see-PTCP-TR-3SG.3SG
 'The man_i sees his_{i/*j} son.'

A third usage of *anaphoric agreement* in the literature is the one introduced by Bresnan and Mchombo (1987) or A. Siewierska (1999). It refers to agreement between a pronoun, later to be incorporated into the verb, and its antecedent, a floating NP in the sentence. As such, it could be assimilated to a kind of clitic doubling. They distinguish such agreement from what they call *grammatical agreement*, which designates the agreement relation between a true (or reanalyzed as such) agreement morpheme and a subject NP. It is not in this sense that I will use the term *anaphoric agreement* here.

(15) *Chichewa* (Bresnan & Mchombo 1987:744)

- a.
 NP AGR
 a. **Njûchi** **zi** ná- lum- a alenje
 10bees SM10- PST- bite- IND 2hunters
 'The bees bit the hunters.' *Grammatical agreement*
- b.
 CLITIC NP
 b. Njûchi zi- ná- **wá** lum- a **alenje**
 10bees SM10- PST- OM2- bite- IND 2hunters
 'The bees bit them, the hunters.' *Anaphoric agreement*

Finally, a fourth type of anaphoric agreement that should not go unmentioned is that which is the topic of Borer (1989). Borer argues for the presence of an AGR head in control infinitives (e.g. *John tried to leave*), which she claims is anaphoric (anaphoric AGR), as it gets its reference not from an embedded PRO, but rather from its antecedent in the matrix clause. The meaning of Borer's anaphoric agreement thus differs from the

sense I give to it here, since it does not refer to agreement of a head with an anaphor, but rather an agreeing head that is itself an anaphor.⁶

Thus, for the purposes of this thesis, anaphoric agreement is simply used in Woolford's sense, that is, to designate an agreement marker whose controller is anaphoric.

6.1.2 Anaphoric agreement: agreement marker or incorporated pronominal?

Given the apparent parallelism between OM and RFM, it is essential to establish that *-ji-* is in fact a true agreement morpheme, and not a cliticized or incorporated reflexive pronoun. More generally, object marking in some Bantu languages (e.g. Bresnan and Mchombo 1987 for Chichewa), as well as outside the Bantu family (Johns & Kučerová 2017; Kramer 2014; Nevins 2011) has been analyzed as pronominal incorporation of the object rather than true agreement. Indeed, φ -covarying verbal morphology can either be construed as an incorporated pronominal, in which the φ -features on the verb actually function as the arguments of that verb (Jelinek 1984), or as genuine doubling of the φ -features of an argument (overt or not) on a functional category, established through a syntactic relation like Agree. The question naturally arises of what is the status of Swahili OMs, but is especially relevant in the case of anaphoric agreement, which has been specifically argued to differ from regular object agreement (e.g. Sikuku 2012). I take the distinction between pronominal argument and agreement marker to be mostly orthogonal to the clitic *vs* affix distinction, which is more morphophonological in nature. I will assume that an agreement marker can either be a clitic or an affix, and will not address this distinction in this chapter. For a thorough discussion of the diagnostics for clitichood *vs* affixhood and their interaction with the status of agreement marker, see for instance Tvica (2017: ch.4).

This section will demonstrate that Swahili OMs and RFMs can both be considered as true agreement markers. The agreement status of Swahili OMs is largely supported by the existing literature (e.g. Riedel 2009, Marten et al. 2007, Mursell 2018). In what follows, I review evidence that OM in Swahili is indeed true object agreement and not pronominal incorporation or cliticization, and show that the same diagnostics apply to the RFM, making it an agreement marker at par with other OMs. I will use the following diagnostic criteria, also summarized in table 6.1.2 below, inspired by Marten et al. (2007: 259, 284): the position of and further affixation possibilities around OMs/RFMs; their obligatoriness; their ability to co-occur with overt objects in-situ; their behavior in ditransitives; and

⁶That being said, in chapter 8, I extend the analysis of verbal anaphoric agreement to cross-clausal anaphoric agreement on C heads, known as switch reference. An analogy could be made between switch reference and control (Souza 2016), eventually circling back to Borer's insight that control is in fact linked to the presence of anaphoric agreement.

finally their inability to surface in passives.

Table 6.1: Properties of Swahili OMs and RFMs

	OM	RFM
<i>Position</i>		
Is the position of the OM/RFM flexible?	no	no
<i>Obligatoriness of the OM:RFM</i>		
Is OM/RFM obligatory in some contexts?	yes	yes
<i>Co-occurrence of the OM/RFM with an overt object</i>		
Can the object marker and the lexical object NP co-occur?	yes	yes
Is co-occurrence required in some contexts?	yes	yes
Is an OM/RFM possible with wh-objects?	yes	–
Is an OM/RFM possible in object relatives?	yes	–
<i>Passives</i>		
Is an OM/RFM allowed in passives?	no	no
<i>Double objects</i>		
Can either object be adjacent to the verb?	no	no
Can either object become subject under passivization?	no	no
Can either object be expressed by an object marker?	no	no

6.1.2.1 Position and further affixation

First, the very position of Swahili OMs and RFMs makes it difficult to argue for a pronominal clitic status, but rather supports agreementhood (Mursell 2018). To start with, the position of the OM or RFM is not flexible, and must be immediately left-adjacent to the verb stem, as attested by their complementary distribution. Positional flexibility is a hallmark of pronominal clitics, but is unexpected for agreement markers (Bax & Diercks 2012; Tvica 2017). Furthermore, the OM is the affix closest to the verb stem, with tense and subject affixes on top of it. Further affixation after cliticization is usually impossible. It seems difficult to maintain a pronominal clitic analysis for tense and subject affixes, which appear left of the OM, thus making it unlikely that the OM is itself a clitic (but see Seidl and Dimitriadis (1997:382-383) for discussion).

6.1.2.2 Obligatoriness

The notion of obligatoriness has been used to distinguish agreement from clitic doubling (Kramer 2014; Preminger 2009; Riedel 2009). Indeed, Corbett (2006) states that a property of canonical agreement is that it is obligatory. As developed in Preminger

(2009), while agreement is the result of a feature valuation operation, clitic-doubling "refers to the very creation of a feature-matched pronominal noun-phrase on the basis of an existing noun-phrase" (Preminger 2009: 5). Unvalued features on a given agreement probe thus always require valuation, be it by default, and agreement is therefore obligatory, while clitic-doubling is only optional. If a language has obligatory object marking, object marking should be thus analysed as agreement.

At first sight, one might observe that OMs are not always present in Swahili and are therefore non-obligatory. For instance, OMs are not always obligatory if the object is inanimate and non-specific, as in (16).

- (16) A- li- (**u**)- ona mti.
 SM1- PST- OM3- see 3tree
 'He saw the tree.'

However, the definition of obligatoriness deserves further specification. Crucially, Riedel (2009), in her thesis about object marking in Bantu, defines obligatory object marking as follows: "A language has obligatory object marking if there is any group of lexical object noun phrases with a particular set of features (such as [+human] objects) which must co-occur with object marking, in order for a sentence to be judged as grammatical". In other words, it is enough that OM be obligatory in some contexts, i.e. that obligatoriness be relativized to certain features. OM in Swahili is not obligatory in all contexts – but it *is* obligatory for certain types of nouns. Riedel (2009) establishes the following categories to trigger obligatory object marking in Swahili: 1st/2nd person pronouns (17), proper names (18), humans, animates, and class 1/2 (19) (subsuming the two preceding).⁷ OM is also obligatory when the object is dropped.

- (17) A- li- ***(ku)**- ona (wewe).
 SM1- PST- OM.2SG- see you
 'He saw you.'

- (18) A- li- ***(mu)**- ona (Tom).
 SM1- PST- OM1- see Tom
 'He saw him (Tom).'

- (19) Ni- li- ***(mw)**- ona mwanawe.
 SM.1SG- PST- OM1- see 1child.POSS.3SG
 'I saw his child.'

(Riedel 2009: 46)

⁷More generally, all animates trigger class 1/2 OM, including animals optionally, although they have their own class. However, in contrast to humans, OMs can be dropped when the object is an animal.

- (i) Ni-li-(mw)-ona mbwa (wake).
 SM1SG-PST-OM1-see 9dog (1his)
 Int: 'I saw the/a dog.'

(Riedel 2009:47)

The features that lead to obligatoriness of the OM are a matter of controversy. Traditional language descriptions often link it to definiteness/specificity or animacy. However, it has been argued that neither of the two factors seem to consistently predict the obligatoriness of the OM (see [Nicolle 2000](#) for an overview, also [Riedel 2009](#)). More recently, [Mursell \(2018\)](#) argues that OMs in Swahili are obligatory in three contexts: pro-drop of the object, left-topicalization of the object and applicatives, and analyzes it as topic agreement. Regardless of what might be the trigger of this obligatoriness, if we follow Riedel's definition, it appears that OMs are indeed obligatory for a particular set of features. This obligatoriness suggests that Swahili OMs are agreement markers, rather than clitics.

Like the above-described OMs, the RFM is obligatory. It can never be omitted, even in the presence of an overt anaphor, as illustrated in (20).⁸

- (20) a. *Juma_i a- me- kat- a [yeye mwenyewe]_i
 1Juma SM1- PST- cut- FV he self
 Int: 'Juma has cut himself.'
- b. Juma_i a- me- **ji**- kat- a [yeye mwenyewe]_i
 1Juma SM1- PST- RFM- cut- FV he self
 'Juma has cut himself.' ([Amidu 2011](#): 116)

In section 6.3, I will show that both RFMs and 1st/2nd person OMs are also obligatory in ditransitive/applicative constructions. The obligatoriness of RFM puts it on an equal footing with other obligatory OMs (humans, 1st/2nd person, etc.) and constitutes evidence for the agreement status (vs pronominal clitic) of these markers.

6.1.2.3 Co-occurrence with an overt object

A further diagnostic to establish the agreement marker status of OMs and RFMs is whether or not they may co-occur with an overt object. Indeed, in general a pronominal object marker should not be able to double a local argument, while an agreement marker is expected to be able to co-occur freely with a lexical object. The ratio behind this diagnostic is that given the θ -criterion, every θ -role that a verb assigns can be occupied by only one argument. If OMs are pronominal, they should be absorbing the object's θ -role. Therefore, pronominal OMs are expected to be in complementary distribution with overt objects in their base or structural position, i.e. not right- or left-dislocated. A dislocated object is arguably not licensed by the verb, but rather by focus or topicalization, which would allow its co-occurrence with a pronominal OM ([Tvica 2017](#): 74sqg).

⁸Reflexive anaphors most often refer to animate entities and by definition to definite/specific entities (necessarily introduced by their immediately preceding antecedent). Although these traits are consistent with those of other obligatory OMs, this observation is not meaningful in so far as neither animacy or definiteness/specificity can be concluded to be the trigger for obligatoriness, as indicated above.

We have already seen that it is obligatory for certain objects to co-occur with a co-indexed object marker, such as human nouns. It is furthermore freely acceptable for inanimates to be doubled by a non-dislocated lexical object. This will be demonstrated first by showing that dislocation of an object marked on the verb is not obligatory and second that doubling is possible in the key contexts of *wh*-in-situ questions and object relatives, which a clitic/incorporation analysis would not predict.

First of all, objects do not need to be dislocated to be doubled by an OM. There is no evidence that all overt, object-marked objects are dislocated. In the following example, it can be observed that the co-occurrence of the class 1 object marker *m* and the object *mwaliimu* ‘teacher’ is equally grammatical if *mwaliimu* is dislocated as in (21b) or not, as in (21a), where it appears in its original position, left of the temporal adverb *jana* ‘yesterday’.

- (21) a. Ni-li-taka u-**m**-tolee **mwaliimu** zawadi jana.
 SM.1SG-PST-want SM.2SG-OM1-give teacher gift yesterday.
 ‘I wanted you to give the teacher a gift yesterday.’
- b. Ni-li-taka u-**m**-tolee zawadi jana, **mwaliimu**.
 SM.1SG-PST-want SM.2SG-OM1-give gift yesterday teacher.
 ‘I wanted you to give him a gift yesterday, the teacher.’

This is shown even more drastically in the following example from Seidl and Dimitriadis (1997), where the object-marked DO *habari* ‘news’ is in the canonical position for an object, i.e. immediately post-verbal, while dislocated objects should rather appear at the periphery of the sentence.

- (22) Wote wa-li-i-pokea **habari** hiyo kwa njia mbalimbali na kama
 everyone SM2-PST-OM9-send 9news this with way various and if
 wa-li-kuwa na maswali wa-li-ya-meza.
 SM2-PST-have with 6questions SM2-PST-OM6-swallow
 ‘Everyone sent this news in various ways and if that had questions they swallowed them.’
 (Seidl & Dimitriadis 1997:384)

Based on a statistical analysis of their corpus, Seidl and Dimitriadis (1997) actually show that object-marked phrase-peripheral lexical objects, i.e. dislocated objects, are less frequent than non-object-marked ones. This result suggests that OM and dislocation of lexical objects do not go hand in hand, and that OMs can indeed co-occur with separate structural objects in-situ. In other words, whatever the status of the OM is, it does not seem to exhaust the argument of the verb, which can be freely expressed in its normal position in the presence of an OM.

As introduced at the beginning of this chapter, and just shown again in (20) above, the RFM may co-occur with an overt anaphor – which, like other objects, can be optionally dropped.

- (23) Ahmed a- na- **ji-** penda (**mwenyewe**).
 1Ahmed SM1- PRS- RFM- love (himself)
 ‘Ahmed loves himself.’ (Vitale 1981: 137 in Woolford 1999: 264)

There is no evidence that this overt anaphor has to be dislocated. This can be demonstrated by the fact that, like an overt DP object, an overt reflexive object can occur to the left of the temporal adverb *jana* ‘yesterday’, which would not be the case if it were dislocated, as in the case of (24b).

- (24) a. Ni-li-taka u-**ji-**nunulie **mwenyewe** zawadi jana.
 SM.1SG-PST-want SM.2SG-RFM-buy self gift yesterday.
 ‘I wanted you to buy yourself a gift yesterday.’
 b. Ni-li-taka u-**ji-**nunulie zawadi jana, **mwenyewe**.
 SM.1SG-PST-want SM.2SG-RFM-buy gift yesterday self.
 ‘I wanted you to buy yourself a gift yesterday, to yourself.’

Note that there is also no prosodic cues for dislocation in (24a), such as a prosodic break before and/or after *mwenyewe*.

Furthermore, the possible co-occurrence between an OM and the lexical object it co-indexes can be evidenced in two particularly telling contexts: in-situ questions and object relatives. Bresnan and Mchombo (1987: 759) first propose that the presence of OM in in-situ questions is a testable prediction of the agreement status of the OM. Questions in Swahili are formed with a *wh*-pronoun in-situ. According to the reasoning laid out above, if the OM was an incorporated pronoun, it should not be able to co-occur with the *wh*-word in-situ (unless it was resumptive). Instead, the prediction is that the *wh*-word would have to be right-dislocated, where it would accordingly receive a topical interpretation. However, *wh*-elements are generally focal rather than topical, focus and topicality being mutually exclusive properties. Bresnan and Mchombo (1987) thus predict that *wh*-elements should not be able to be right-dislocated at all and should remain in-situ at all times. This offers a particularly good environment to diagnose agreementhood, by predicting a sharp asymmetry between true agreement and pronominal incorporation: an in-situ *wh*-object should not be able to be doubled by a clitic or an incorporated pronoun, but could be doubled by an agreement marker. In Swahili, an object *wh*-word in-situ can very well co-occur with the OM.

- (25) a. Bakari a-na-**wa-**somea **watoto** hadithi maktaba-ni.
 1Bakari SM1-PRS-OM2-read.APPL children stories library-LOC
 ‘Bakari is reading stories to/for the children in/at the library.’
 b. Bakari a-na-**wa-**somea **nani** hadithi maktaba-ni?
 1Bakari SM1-PRS-OM2-read.APPL who stories library-LOC
 ‘To/for whom is Bakari reading stories in/at the library.’
 (Bokamba 1981 in Bresnan and Mchombo 1987: 777)

In fact, according to Mursell (2018), OM can even be obligatory in *wh*-questions, when the object *wh*-word is d-linked and expressed by *vipi* ‘which’.

- (26) U-li-*(**vi**)-ona vitabu **vipi**?
 SM.2SG-PST-OM8-see books which
 ‘Which books did you see?’ (Mursell 2018: 433)

This diagnostic offers further support for the claim that OM can co-index non-dislocated overt objects, thereby corroborating the hypothesis that they are agreement markers rather than pronominal incorporated or cliticized objects.

The second environment highlighting this characteristic of OM is object relatives. The pattern of object marking in relative clauses is also commonly used as a diagnostic of the status of the OM (Bresnan & Mchombo 1987; Diercks & Sikuku 2013; Henderson 2006). In particular, Henderson (2006) establishes that languages that allow the OM to co-occur with a moved overt object in relative clauses are languages with agreement rather than pronominal doubling. The idea is that since an object has been moved to the matrix clause via relativization, having an argument corresponding to the moved one on the θ -role assigning verb is incompatible. If the OM instead is an agreement marker, no such conflict will exist and we expect doubling of the relativized object to be grammatical, as the OM simply indexes an agreement relation between the verb and its object (maybe via a *pro* relative pronoun). This is the case in Swahili, in which OM may co-occur with a relativized object, as illustrated in (27), where the class 7 OM indexes the moved object *kitabu* ‘book’ of the same class. This constitutes a further argument in favor of the status of Swahili OM as agreement markers.

- (27) **Kitabu**_{*i*} a-li-cho-**ki**-nunua *t_i* ki-me-potea.
 7book SM1-PST-REL7-OM7-buy SM7-PFV-be.lost
 ‘The book that he bought has been lost.’ (Seidl & Dimitriadis 1997: 377)

Tests of co-occurrence of in-situ questions and in object relatives cannot be replicated with reflexive objects. In the case of in-situ questions, the reflexive would simply be replaced by a *wh*-word, rendering it indistinguishable from a non-reflexive object. In the case of object relatives, it is virtually impossible to construct an example where a reflexive object is the antecedent of a relative clause; the target sentence would indeed be of the form **Himself_i [who(*m*) he_{*i*} saw *t_i* yesterday] called again today*, which is presumably ruled out by locality principles, since *himself* does not have a local antecedent after extraction.⁹ Sikuku (2012) comes to the same conclusion about Lubukusu RFMs. Nonetheless, given that the OM and RFM occupy the same slot, any conclusions drawn about the former should be readily extendable to the latter.

⁹Note that ungrammaticality persists even if the anaphor could be bound after movement: **He_{*i*} called himself_{*i*} [who(*m*) Mary saw *t_i* yesterday]*.

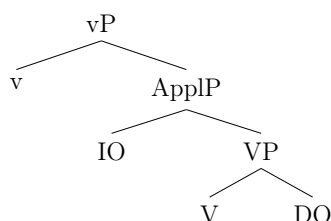
6.1.2.4 OM and RFM in ditransitives

A third parallelism between OM and RFMs which speaks in favor of their agreementhood is their behavior in ditransitives. The class of ditransitives here includes ditransitive verb roots as well applicative constructions containing the suffix *-i/-e-* and introducing an applied object (beneficiary or affected object), which have been shown to have the same argument structure (Marantz 1993; Pacchiarotti 2016; Riedel 2009). I have previously introduced the fact that Swahili can only express one OM or RFM, even in ditransitives.

- (28) a. *Ni- li- **ki-** **m-** nunulia **mwanangu** **kitabu**.
 SM.1SG- PST- OM7- OM1- buy.APPL 1child.POSS.1SG 7book
 Int: ‘I bought it/something for my child.’
 b. Ni- li- **m-** nunulia **mwanangu** **kitabu**.
 SM.1SG- PST- OM1- buy.APPL child.POSS.1SG 7book
 ‘I bought the book for my child.’ (Riedel 2009:88)
- (29) a. *Ni- li- **ki-** **ji-** nunulia.
 SM.1SG- PST- OM7- RFM- buy.APPL
 Int: ‘I bought a book for myself.’
 b. Ni- li- **ji-** nunulia **kitabu**.
 SM.1SG- PST- RFM- buy.APPL 7book
 ‘I bought a book for myself.’ (Riedel 2009:88)

Furthermore, Swahili is a so-called asymmetric language: a distinction is made between languages with symmetric or asymmetric double object constructions, based on the (symmetrical or not) behavior of direct and indirect object, with respect to their ability to trigger object marking on the verb, to be passivized, and to have access to the immediately postverbal position. IOs and DOs are thus hierarchically differentiated, IOs being higher than DOs. The structure of a double object construction is thus similar to its French equivalent.

(30)



In asymmetric languages, the marked object can only be the IO, as in example (28b) above. Doubling of the direct object in a ditransitive is ungrammatical: the OM will always index the closest object, i.e. the indirect object.¹⁰

¹⁰There is arguably some variation in this respect: one of my informants, from the North Kivu region,

- (31) a. *A-li-**ki**-nunulia Juma (kitabu).
 SM1-PST-OM7-buy.APPL 1Juma 7book
 Int: ‘She bought a book for Juma.’ (Riedel 2009:80)
- b. A-li-**m**-nunulia Juma kitabu.
 SM1-PST-OM1-buy.APPL 1Juma 7book
 ‘She bought a book for Juma.’

RFMs exhibit the same sensitivity to the hierarchy between IOs and DOs. In a true ditransitive, a reflexive direct object cannot be co-indexed by the RFM, by virtue of the asymmetric nature of Swahili. In contrast, RFMs can freely index an IO, as in (32b).

- (32) a. *A- li- **ji**- julisha Juma *pro_{REFL}*.
 SM.1SG- PST- RFM- describe Juma
 Int: ‘He described himself to Juma.’
- b. Ni- li- **ji**- nunulia kitabu.
 SM.1SG- PST- RFM- buy.APPL7book
 ‘I bought a book for myself.’ (Riedel 2009:88)

The RFM can thus be observed to pattern once more like its OM counterpart. Baker (2008) suggests that asymmetry in object marking is a consequence of the properties of syntactic agreement as opposed to object clitics. Indeed, he proposes that true agreement is restricted to a single object. According to him, if a language allows agreement with more than one object, the second one will not show person agreement. The fact that Swahili has asymmetrical OM in DOCs constitutes for Baker (2008) an argument in favor of its being true agreement.

More importantly, sensitivity to the structural height of an object and the absence of intervener for object marking suggests that a syntactic operation like Agree is at play.¹¹ By standard definitions of Agree, a probe α can agree with a goal β if and only if β is the closest goal to α and no other goal γ with a matching feature intervenes between α and β . This is precisely the situation that arises in Swahili double object constructions, where the IO intervenes between the probe and the DO. No such intervention effects are expected if the RFM is a valency operator. The parallel behavior of OM and RFM in this respect constitutes an argument for their status as agreement markers.

judges this sentence grammatical, where the DO of ditransitive triggers agreement with the verb.

- (i) ?Ni- li- **ki**- nunulia Maya **kitabu**.
 SM.1SG- PST- OM7- buy Maya 7book
 ‘I bought the book for Maya.’

Given the large consensus on the fact that Swahili is indeed asymmetric, I will continue to treat it as such despite this point of variation.

¹¹Thanks to Ken Safir (p.c.) for pointing this out to me.

6.1.2.5 OMs and RFMs in passives

A further diagnostic for the status of OMs and RFMs is their occurrence in passives. Baker (2008, 2012) and Kramer (2014) suggest that if object marking morphology can appear on a verb in the passive voice, then it is not an agreement marker but a moved object clitic. As noted by Kramer (2014), typologically, object agreement is often absent entirely with passive verbs. Doubled clitics, on the other hand, are often attested with passive verbs and unaccusative verbs. Baker (2008:fn25) advances that the rationale behind this diagnostic is that only the active version of *v* is a legitimate bearer of object agreement. This is based on the idea that object agreement should be treated on a par with accusative case, which as per Burzio's generalization should not appear on passive or unaccusative predicates, even if the base verb is a ditransitive.

In Swahili ditransitives, only IOs may be passivized, as shown by (33b) and (33c), a property which falls out of the structural asymmetry between IOs and DOs, as only the former are accessible for operations like agreement or in this case raising to subject for passivization.

- (33) a. A- li- m- nunulia **Juma** *kitabu*.
 SM1- PST- OM1- buy.APPL 1Juma 7book
 'She bought a book for Juma.' *Active*
- b. **Juma** a- li- nunul-iwa *kitabu*.
 1Juma SM1- PST- buy- PASS 7book
 'Juma was bought a book.' *IO passive*
- c. **Kitabu* ki- li- nunul- iwa **Juma**.
 7book SM7- PST- buy- PASS 1Juma
 Int: 'She bought a book for Juma.' *DO passive* (Riedel 2009: 80)

When the IO is passivized, it is not possible to have object marking of the remaining DO, as illustrated by the minimal pair in (34a) and (34b). The OM must obligatorily be left out in passives, which suggests that Swahili OMs are indeed agreement markers.¹²

- (34) a. *Ni- li- **ki-** let- ewa (*kitabu*).
 SM.1SG- PST- OM7- bring- PASS 7book
 Int: 'I was brought a book.'
- b. Ni- li- let- ewa *kitabu*.
 SM.1SG- PST- bring- PASS
 'I was brought a book.' (Riedel 2009: 80)

The inability of OMs to occur in passives has been taken as a diagnostic of their status as agreement markers. Thus, we expect that RFMs, like other OMs, should not

¹²Note that Riedel discredits this test, in the context of Sambaa and Haya, on the basis of theoretical reasons as well as inconsistent results (Riedel 2009:84-89). Nevertheless, the results for Swahili are consistent with Baker's predictions.

surface in passive constructions. Indeed, passivization of a clause containing the RFM *-ji-* is ungrammatical. This is reported by Amidu (2004, 2011), who states that "for most native speakers, passivization of clauses [...] containing RFM *-ji-* is impossible" (Amidu 2004: 179), and gives the following examples.

- (35) a. Mw-anafunzi a- na- **ji-** fun- z -a hesabu
 1-pupil SM1- PRS- RFM- teach- CAUS- FV 9mathematics
 'The pupil is teaching herself mathematics.' *Active*
- b. *Hesabu i- na- **ji-** fun- z- w- a na mw-anafunzi
 9mathematics SM9- PRS- RFM- teach- CAUS- PASS- FV be 1-pupil
 'Mathematics is being taught to herself by the pupil.' *Passive* (adapted from Amidu 2004: 179)

However, recall that in Swahili, only IOs can be passivized, due to the asymmetric nature of DOCs. The passivization of the DO *hesabu* 'mathematics' is thus not expected to be grammatical, regardless of the presence of the RFM. My own data (obtained from a native speaker informant), which needs further confirmation, preliminarily suggests that passivization of an IO is also incompatible with the presence of an RFM indexing the DO.

- (36) a. A- li- ***(ji)-** onesh- ewa mwenyewe.
 SM1- PST- RFM- show- PASS himself
 'He was shown himself.'
- b. A- li- ***(ji)-** julish- ewa mwenyewe.
 SM1- PST- RFM- describe- PASS himself
 'He was described himself.'

The ban of RFM with passives parallels that of OMs, categorizing RFMs as agreement, together with OMs. Note however, that if the agreeing *v* head in reflexives is a dedicated reflexive voice head, as I argued of French in chapter 5 and will also assume for Swahili, we indeed do not expect reflexive *-ji-* to be possible in a passive construction, since a passive voice head and a reflexive voice head should be incompatible.

Summing up, this subsection has highlighted the main properties of OMs and RFMs and argued for their status as agreement markers. It can first be concluded that there are multiple arguments in favor of Swahili OMs as true agreement markers. Overall, RFMs pattern exactly like other OMs in all the properties described.¹³ This strongly suggests that RFMs should be granted the same status and function as OMs, which has been

¹³A further point that could not be tested for Swahili in the occurrence of RFMs in *li* nominals. In Lubukusu, the RFM is allowed with the *li*-nominals while the OM is not, which Sikuku (2012) takes to stem from the fact RFM attach to a lower Voice head, which unlike the accusative assigning head, allows such nominalizations.

- (i) Li-li-i-siim-isy-a li-li li-lume.
 5-5-RFM-please-CAUS-FV SM5-be 5-difficult
 'Pleasing oneself is difficult.'

established to be that of agreement markers. The parallelisms are summed up in the table below, repeated from the beginning of this section.

Table 6.2: Properties of Swahili OMs and RFMs

	OM	RFM
<i>Position</i>		
Is the position of the OM/RFM flexible?	no	no
<i>Obligatoriness of the OM:RFM</i>		
Is OM/RFM obligatory in some contexts?	yes	yes
<i>Co-occurrence of the OM/RFM with an overt object</i>		
Can the object marker and the lexical object NP co-occur?	yes	yes
Is co-occurrence required in some contexts?	yes	yes
Is an OM/RFM possible with wh-objects?	yes	–
Is an OM/RFM possible in object relatives?	yes	–
<i>Passives</i>		
Is an OM/RFM allowed in passives?	no	no
<i>Double objects</i>		
Can either object be adjacent to the verb?	no	no
Can either object become subject under passivization?	no	no
Can either object be expressed by an object marker?	no	no

6.1.3 The features of *-ji-*

Analyzing the RFM as an agreement morpheme has implications for its syntax. As an agreement marker, it should thus be construed as a probe with uninterpretable, unvalued features that get valued in the syntax by the interpretable, valued features of an argument. Since *-ji-* only occurs with reflexive arguments, it follows that its controller is the anaphor itself, begging the question of what features on the anaphor are indexed by anaphoric agreement. Agreement markers usually reflect the φ -features of the argument that they co-index. In this section, I will demonstrate that this is not the case with anaphoric agreement, which will be argued to be the morphological expression of agreeing referential [ID]-features, thus lending further support to the role of [ID]-features argued for in previous chapters. I will first show that *-ji-* is φ -invariant and does not reflect any φ -features nor belong the φ -agreement paradigm of the language. I will then argue that it cannot be

- (ii) Li-(*mu)-siim-isy-a li-li li-lume.
 5-OM1-please-CAUS-FV SM5-be 5-difficult
 ‘Pleasing him is difficult.’

[Lubukusu] (Sikuku 2012: 9)

qualified as default agreement either. Finally, I will discuss the features, form and function of the emphatic anaphor *(mw)enyewe*, showing that it can shed some light on the features of *-ji-* itself.

6.1.3.1 *-ji-* is φ -invariant

First, reflexive agreement in Swahili does not vary according to the φ -features of the reflexive's antecedent. In the following examples, *-ji-* co-occurs with antecedents of 1st or 2nd person as well as singular or plural number.

- | | |
|---|--|
| (37) Ni- li- ji- ona.
1SG- PST- RFM-see
'I saw myself.' | (39) Tu- li- ji- ona.
1PL- PST- RFM-see
'We saw ourselves.' |
| (38) U- li- ji- ona.
2SG- PST- RFM-see
'You saw yourself.' | (40) Mu- li- ji- ona.
1PL- PST- RFM-see
'You saw yourselves.' |

-ji- also co-occurs with 3rd person antecedents of different noun classes. As observed with French, antecedents of reflexives are overwhelmingly human and animate, and therefore largely restricted to noun class 1/2. However, *-ji-* can also be found with animals, such as the class 7 noun *kiboko* 'hippopotamus' (although see footnote 7, this chapter), and even inanimates, like with the class 3 subject *mtumbwi* 'boat'.¹⁴

- | |
|--|
| (41) Ki-boko hi-ki ki-na- ji- end-e-a mwitu-ni
7-hippopotamus this-7 SM7-PRS-RFM-go-APPL-FV forest-17
'This hippopotamus is going around by itself in the forest.' (Amidu 2004: 328) |
| (42) M-tumbwi u-na- ji- end-e-a maji-ni
3-canoe SM3-PRS-RFM-go-APPL-FV water-17
'The canoe is going/drifting by itself, out of control, in the water.' (Amidu 2004: 318) |

The fact that *-ji-* may occur with antecedents of all person, number and noun classes also goes to show that it may not be taken to constitute a noun class of its own. If it were so, we would not expect it to be able to span over all other noun classes. Furthermore, it would be expected to arise in other environments, for instance on noun or adjective concord, which is not attested (see section 6.3.3 for a discussion of Baker's SCOPA).

6.1.3.2 *-ji-* is not default agreement

One possibility as to the featural content of *-ji-* is explored by Storoshenko (2016), who analyzes in detail reflexives constructions in Shona, another Bantu language, which look

¹⁴These examples should be manipulated with caution as it is possible that *-ji-* might function as an inherent reflexive on the root *-enda* 'go' or have an idiomatic meaning in this context.

very similar to Swahili.

- (43) John a- ka- **zvi-** pis- a *pro*.
 John SM1- RPST- OM8- burn- FV
 ‘John burned himself.’ *Shona* (Storoshenko 2016: 158)

Storoshenko (2016) argues that Shona *-zvi-* is indeed an object agreement morpheme, which I showed to be also true of Swahili *-ji-*. However, he argues that Shona *-zvi-* is an instance of default agreement with a φ -featureless covert anaphor – a claim that I challenge in chapter 9. Several arguments seem to add up to show that *-zvi-* is indeed default agreement in Shona. First, *-zvi-* is homophonous with one of Shona’s object markers, class 8 (generic inanimate objects, plural) and can generate ambiguous readings. For instance, the sentence in (43) above can also mean ‘John burned them’. Additionally, *-zvi-* can be used as an agreement morpheme in introduction to quoted speech and is the agreement marker for subordinate clauses, both of them arguably φ -less complements.

- (44) *Shona*
- a. **Zvi-**ka-nz-i, ‘Iwe u-ri ku-famb-a...’
 SM1-RPST-tell-FV you SM.2SG-AUX INF-walk-FV
 ‘You were walking...’ was told.’ (Storoshenko 2016: 169)
- b. John a-ka-**zvi-**kumb-ir-a Bill.
 John SM1-RPST-OM8-ask-APPL-FV Bill
 ‘John asked it of Bill’ (where *it* = to wake him up) (Storoshenko 2016: 170)

Finally, it is used for plurals made up of elements of different noun classes.

- (45) Nda- \emptyset -**zvi-**tor-a [sadza no-mu-riwo].
 SM.1SG-PST-OM8-take-FV 5sadza and-3.relish
 ‘I took them (sadza and relish).’ *Shona* (Storoshenko 2016: 169)

Based on this, Storoshenko argues that class 8 is used as the agreement marker for elements that either contain a clash of φ -features or do not have inherent φ -features, that is a default agreement morpheme. Therefore it is not surprising that reflexives, which have been argued to be φ -deficient, would trigger this type of object marking. The Shona RFM is thus concluded to be default agreement. This line of reasoning is further developed by Murugesan (2019), who argues that default agreement is one of the repair strategies deployed by languages obeying the Anaphor-Agreement Effect.

This argument, however, may not be carried over to Swahili. First of all, the Swahili RFM does not belong to the regular φ -paradigm. The *-ji-* marking on the verb only ever occurs with reflexive arguments, and is not attested elsewhere in the agreement paradigm of the language. Since default agreement is usually a form taken from the φ -paradigm of the language, this a priori excludes that Swahili *-ji-* be an instance of default agreement.

Table 6.3: Swahili object agreement paradigm

Person & noun classes	SG	PL
1st person	ni	tu
2nd person	ku	mu/wa
3rd person		
1/2	m	wa
3/4	u	i
5/6	li	ya
7/8	ki	vi
9/10	i	zi
11/10	u	zi
15	ku	

Furthermore, Swahili *-ji-* is not found in the environments described by Storoshenko (2016) as calling for default agreement. As noted by Riedel (2009:206), Swahili has no dedicated ‘elsewhere’ affixes, with the possible exception of some default classes. My observations confirm that *-ji-* is not one of them. With coordinated arguments of different classes, speakers use the class 8 marker *-vi-*, albeit only optionally. This is shown in (46), where the locative copula inflects for class 8 with a coordinated subject composed of conjuncts of class 10 and 9 respectively.

- (46) Mk-ewe a-ka-mw-uliza: Jinsi gani Bwana nguo z-ako na
 1-wife.POSS.3SG SM1.RPST-OM1-ask: how Bwana 10clothes 10-your and
 farasi **vi**-ko wapi?
 9horse 8-LOC where
 ‘His wife asked him: “How now, Bwana, where are your clothes and your horse?”.’
 (Ashton 1944:311)

For object agreement, my informants consistently favored absence of OM over any marking with coordinated objects, as in (47). None of them accepted the RFM in this position. Note that a large literature also describes the possibility of first or second conjunct agreement in this case (see Riedel 2009).

- (47) Ni-li-ficha kalamu na funguo zake.
 SM1-PST-hide 9pen and 11key a.lot
 ‘I hid the pen and the keys.’

In the case of impersonal subjects, mirroring the Shona example in (44a), speakers turn to class 9 *-i-*.

- (48) I- na- andik- wa: u- si- ue.
 SM9- PRS- write- PASS SM2SG- NEG- kill
 ‘It is written: you shall not kill.’

There thus seems to be an asymmetry between the default strategy used for subject agreement (class 8 or 9) and object agreement (no marking). Regardless of this asymmetry, it can be concluded that *-ji-* does not belong to these default strategies, and that there are therefore no grounds to analyze Swahili anaphoric agreement as default agreement with a potentially featureless anaphor.

6.1.3.3 Features, form and function of *-enyewe*

Finally, some attention needs to be devoted to the overt or emphatic anaphoric form *mw-eneyewe*. As seen in several examples above, the RFM can co-occur with an overt anaphor, *mwenyewe* ‘self’.

- (49) Ahmed a- na- **ji**/*m- penda (**mwenyewe**).
 1Ahmed SM1- PRS- RFM/*OM1- love (himself)
 ‘Ahmed loves himself.’ (Vitale 1981: 137)

As described in Vitale (1981: 135), the anaphor *mwenyewe* is composed of “a reflexive anaphor *-enyewe* ‘self, own’ to which is attached a prefix which shows agreement with the gender and number of the antecedent NP”.¹⁵ The *mw-* prefix is characteristic of class 1 (animate, singular), and varies in the plural (class 2): *w-enyewe*.

- (50) Maya na Adam wa- li- ji- ona **w-enyewe**.
 Maya and Adam SM2- PST- RFM- see 2-self
 ‘Maya and Adam saw themselves.’

-enyewe can be omitted in the presence of the RFM, and in fact often is, its presence yielding an emphatic interpretation, like in the case of overt pronouns. Swahili is a pro-drop language and pronominal objects are normally null, as in (51a). They can be overt if they are contrastively stressed, as in (51b).

- (51) a. A-li-**ni**-ona *pro*_{1SG}.
 SM1-PST-OM.1SG-see
 ‘He saw me.’
 b. A-li-**ku**-ona wewe.
 SM1-PST-OM.2SG-see you
 ‘He saw *you*.’

This anaphor otherwise functions as an emphatic pronoun (Shiraki 2004; Vitale 1981),

¹⁵There is no person agreement on the anaphoric form, which can be explained by the fact that person agreement typically does not surface on DPs or adjectives (Baker 2008).

that can be used to reinforce a subject argument for instance.

- (52) a. wanafunzi **w-enyewe** wa-li-kataa ku-hudhuria shule
 2.students 2-self SM2-PST-refuse to-attend school
 ‘The students themselves refuse to go to school.’
 b. kasha **l-enyewe** li-li-fika
 5box 5-self SM5-PST-arrive
 ‘The box itself arrived.’ (Vitale 1981: 135)

In reflexive constructions, *-enyewe* could either be argued to be either the ‘true’ anaphoric argument or an adverbial modifier of a silent anaphoric *pro*. In the absence of definitive diagnostic to establish its status, and by analogy with its emphatic usage in other contexts, I will assume, following Storoshenko (2016) for Shona, that the reflexive anaphor is a covert *pro_{REFL}* which can be further modified by the emphatic adjectival modifier *-enyewe*. Object drop, as we have seen previously, is common in Swahili and Bantu languages at large, especially when licensed by agreement. For the rest of this chapter, the presence of a covert reflexive object will be indicated as *pro_{REFL}*.

At any rate, the absence of visible φ -features on the RFM is not due to a lack of φ -features on the anaphor, as witnessed by the presence of class agreement/concord on the overt anaphoric form *-enyewe*. Regardless whether one analyzes it as the true anaphor and controller of agreement or as an adverbial modifier agreeing with a *pro_{REFL}*, the anaphor *-enyewe* reflects the noun class and number of the antecedent. If *-enyewe* is the real anaphor, then it agrees with its antecedent. If it is the modifier of a silent anaphor, then it indirectly reflects agreement of this anaphor with its antecedent. In both cases however, these φ -features are not reflected on the RFM, which is φ -invariant, raising the question of why that is the case.

6.1.3.4 Interim summary

This section has introduced the verbal reflexive marker *-ji-*. First, 6.1.1 introduced the verbal reflexive marker and showed that it should be construed as inflectional rather than derivational morphology, based on morphological (its preverbal position) and distributional (its strict complementary position with other OMs). This finding raised two main questions. The first one, addressed in 6.1.2, is whether RFMs, but also generally OMs in the language, should be analyzed as true agreement markers, or rather like incorporated or cliticized pronouns, thus addressing a particularly salient debate in Bantu linguistics. Based on a number of diagnostics (morphological position, obligatoriness, co-occurrence with overt objects in-situ, asymmetry and intervention effects in ditransitives, absence in passives), I have demonstrated that RFM should be treated, like OMs, as genuine agreement markers. In the case of the RFM, the question is especially relevant: confirming that the RFM is an agreement marker, and not simply a reflexive anaphor, allows us to

address from a new angle the question of the featural content of reflexives, by examining the features that are copied when they are agreed with. This question is tackled in section 6.1.3, which shows that the morphology and distribution of *-ji-* cannot be explained as φ -agreement: it does not belong to the regular φ -paradigm, is φ -invariant and can also not be classified as default agreement. In the next section, I will provide an analysis and a derivation for Swahili anaphoric agreement, which shows that it can instead nicely be accounted for by an analysis in terms [ID]-features, thus providing further support to the role of these features in binding.

6.2 The derivation of anaphoric agreement

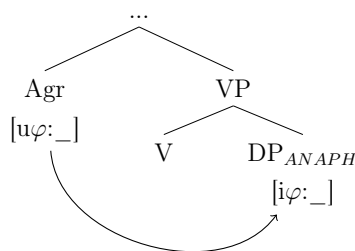
This section will provide an analysis for the verbal reflexive marker *-ji-* based on its characteristics described above. In 6.2.1, I will review some theoretical considerations which, added to the φ -invariance and φ -insensitivity of *-ji-*, argue against an analysis of *-ji-* as φ -agreement. Then 6.2.2 I will introduce my analysis of anaphoric agreement as the morphological expression of [ID]-features on v_{REFL} and will go through the steps of the derivation. Finally, section 6.2.3 will discuss the implications of the proposed analysis in comparison with other analyses.

6.2.1 Ruling out φ -agreement

The most straightforward analysis of any agreement morpheme is perhaps an analysis in terms of φ -features. However, we have seen above that the morphology of *-ji-* does not lend much support to this hypothesis. This section will show that an approach in terms φ -agreement additionally runs into several theoretical and derivational problems, which discredits such a hypothesis.

Indeed, if one assumes φ -sharing only accounts of binding, as introduced in chapter 2 (e.g. [Heinat 2008](#); [Reuland 2011](#); [Rooryck and Vanden Wyngaerd 2011](#)), the contrast between *-ji-* and other OMs cannot be straightforwardly derived. As proposed by [Mugesan \(2019\)](#), there exist two possible scenarios for the derivational timing of binding as φ -Agree. The first option is that the anaphor is unvalued for φ at the stage where the functional head agreeing with the object probes for φ -features. This could be the case in Swahili, whose object agreement probe is located on *v*, and thus merged before the subject. According to the proponents of φ -binding, the subject antecedent will not yet have merged and agreed with the anaphor, which would still be φ -deficient at the time of probing.

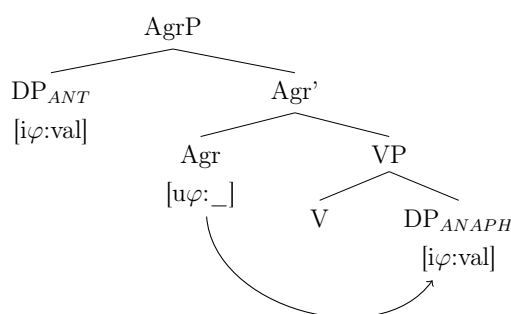
(53)



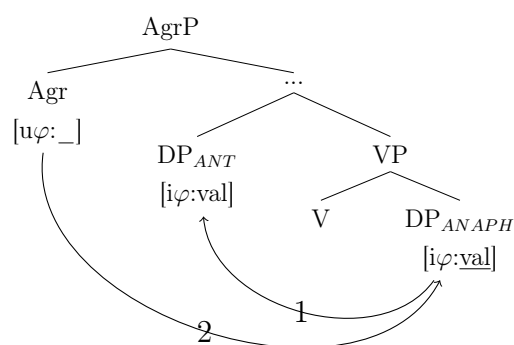
In this scenario, one would expect the Anaphor-Agreement Effect to arise, and either for the derivation to crash or for a repair strategy to be deployed. Neither seems to be the case in Swahili, as already noticed by Woolford (1999). Sentences with an object anaphor show up as perfectly grammatical with anaphoric object agreement. As just argued, Swahili *-ji-* is also not a case of default agreement, as in Shona. It also does not belong in any of the other known repair strategies for the AAE such as agreement switch (Murugesan & Raynaud to appear), where we could expect covarying φ -agreement with the subject.

The second possibility is that at the time the object agreement probe looks to Agree, the anaphor already has valued φ -features. This can happen either because the anaphor is not born φ -deficient to begin with, as in (54), or because of the anaphor's antecedent is merged before the agreement probe as in (55), allowing for early valuation of the anaphor's features (as described in Murugesan 2019).

(54)



(55)



Note that the second scenario in (55) does not seem a particularly likely one in the case of Swahili, which arguably has a low object agreement probe which would be expected to merge before the subject. Regardless of this consideration, if the anaphor has valued φ -features at the time of agreement, we expect it to be able to trigger φ -agreement. In this scenario, we do not expect any difference between the reflex of agreement with a regular,

non-anaphoric object and the reflex of agreement with an anaphor (corresponding to a violation of or exception to the AAE). Indeed, the valued φ -set of the anaphor should be able to transmit the same features to the probe as the valued φ -set of a pronoun, as schematized below.

(56) *Reflexive object*: $DP_{Subj} \dots v [u\varphi:3^{rd}, Cl1, SG] \dots DP_{Refl} [i\varphi:3^{rd}, Cl1, SG]$

(57) *Pronominal object*: $DP_{Subj} \dots v [u\varphi:3^{rd}, Cl1, SG] \dots DP_{Pron} [i\varphi:3^{rd}, Cl1, SG]$

In other words, if one postulates that the φ -features of the anaphor are valued in the course of the derivation, once they are valued, they should be no different than the inherently valued φ -features of a pronoun for the purposes of agreement with a functional head. The Swahili facts say otherwise: agreement with an anaphor does not yield regular object agreement – instead, it yields the invariant, reflexive-specific *-ji-*.

Another possibility to account for this dedicated form while still assuming that the RFM is φ -agreement is to look beyond person, number and gender features. Sundaresan (2020) suggests that *-ji-* is the morphological spell-out of a single [SENTIENT] φ -feature on the anaphor, which are otherwise devoid of all other φ -features at the time of probing. Only anaphors have no other features than [SENTIENT], explaining why only anaphors trigger the form *-ji-*. However, two observations seem to discredit this possibility. First of all, Swahili appears to already have a dedicated noun class for sentient elements, namely class 1/2. This noun class is used exclusively for humans and animals (Riedel 2009). Its usage therefore denotes the property *animate* or *sentient*, thereby separating it from all other more or less arbitrary noun classes, all used for inanimates/non-sentient nominals. Nothing allows us to postulate any other feature on a class 1 nominal, especially if one assumes that 3rd person is the absence of person and singular the absence of number. It thus appears that sentience could be the unique and defining feature for class 1 agreement of the *-mu-* form, which clashes with Sundaresan's argument that it is the unique and defining feature of the RFM.

Moreover, Sundaresan (2020) assumes that the feature [SENTIENT] also occurs on 1st/2nd person pronouns (this time together with other φ -features), in a move to account for the common pattern of Swahili anaphors and 1st/2nd person for PCC effects (see 6.3). As already discussed in 3.3.3, the assumption that [SENTIENT] is the relevant feature for person licensing is controversial. In Swahili as in many other languages (e.g. French or Spanish), the property of being animate or sentient does not correlate with being PCC-sensitive. In Swahili, class 1/2 pronominals do not obey the PCC, nor do French animate *le/la*. [SENTIENT]-features would thus need to be divorced from the actual property of being sentient, which lessens the appeal of a [SENTIENT]-based proposal. Ormazabal and Romero (2007) nicely put in perspective the imperfect correlation between animacy and the need for licensing. They argue that while animacy as a feature does interact

with the requirement for certain objects to be licensed, as animate objects typically need licensing, it is not the triggering feature for licensing. While only animate objects need to be licensed, not all of them do, and there is therefore no one-way correlation between animacy and licensing. The same reasoning can be extended to sentience: while it is arguably a relevant factor (1st/2nd person and reflexives are almost always sentient), many sentient pronominals do not need licensing, including those for which sentience is arguably part of their feature set (e.g. Swahili class 1/2). Consequently, if [SENTIENT] is the only feature borne by the anaphor, but if, as argued here and in 3.3.3, it cannot be the licensing feature behind PCC-effect, the common patterning of 1st/2nd person and anaphors is left unexplained. It thus appears that anaphoric agreement cannot be straightforwardly accounted for by an analysis as agreement in [SENTIENT] φ -features.

Swahili anaphoric agreement thus poses the following puzzle: its similarity to object agreement markers qualifies it as an agreement marker itself. However, it does not encode φ -covariance with its controller, suggesting that it either does not agree for φ -features at all or in any case not for φ -features only; nevertheless it cannot be characterized as default agreement. Additionally, anaphoric agreement seems to differ from regular object agreement in one essential respect: the agreement morpheme morphologically encodes coreference or coindexation of two co-arguments, specifically of an object with the subject, and its presence is obligatory to obtain such coreference. In other words, the features reflected in the *-ji-* agreement morphemes do not seem to be φ -features or case features. Rather, they appear to reflect some other feature, that could be informally termed anaphoric, as its role at the interface is clearly to suggest co-reference with an argument in the clause.

6.2.2 Proposal: anaphoric agreement is [ID]-agreement

What shall this feature be? I propose that this feature is actually similar to the referential features that have been proposed to underlie binding and context-linking relations, namely [ID]-features. Instead of φ -covariance, what anaphoric agreement encodes is coreference of two arguments, the subject and the object. As argued in chapter 2, φ -matching is not enough to derive coreference. The previous section has furthermore shown that there is no trace of φ -covariance on the object agreeing head when the object is interpreted as a reflexive. Therefore, anaphoric agreement, if it is to be construed as agreement for a given feature, which I have argued it should, should reflect agreement for a feature that (i) is distinct from φ , (ii) can enter Agree relations, (iii) is present on anaphors and (iv) can encode coreference. [ID]-features, such as those proposed for binding in chapter 2 and for person licensing in chapter 4, are ideal candidates. I will first outline my theoretical assumptions before proceeding to the derivation of anaphoric agreement as [ID]-feature agreement.

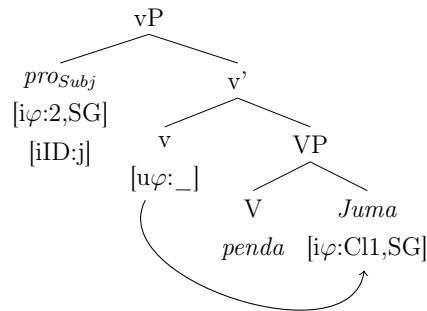
I build my analysis on the same two core assumptions that were used throughout

the previous chapter. First, I assume that Agree operations, including checking and valuation, are strictly upwards when it comes to [ID]-features. Second, I follow Pesetsky and Torrego's (2007) definition of Agree as feature sharing, where Agree results in the replacement of each instance of a feature involved in an chain of agreement relations by the same feature.

I assume that the following basic syntax for regular object agreement in Swahili.¹⁶ Object agreement is triggered by a φ -probe located on the functional head v . As argued by Julien (2002) and Riedel (2009), there is no evidence that objects move to a higher position in Bantu, and therefore I will follow their accounts by assuming that objects agree in-situ.

- (58) a. U- na- m(u)- penda Juma.
 SM.2SG- PRS- OM1- love Juma
 'You love Juma.'

b.



This data thus suggests that agreement for φ -features can be downwards, i.e. that unvalued uninterpretable φ features can be checked and valued by valued interpretable φ -features in their c-command domain. This also implies that φ -agreement can happen at a distance, i.e. not necessarily in a Spec,head configuration (incidentally violating Baker's (2008) SCOPA). One can thus assume a mixed Agree model in Swahili, where φ -agreement is presumably downward but [ID]-agreement is upward, consistently with Preminger's (2013) insight that semantically loaded features, like for instance [NEG] features, more clearly tend to Agree upwards.

I propose that reflexive sentences involving anaphoric agreement in Swahili involve a dedicated voice head v_{REFL} , as was argued for French. This proposal first relies on the observation that *-ji-* marked reflexives in Swahili are local subject-oriented, a central property of French *se* that prompted an analysis in terms of voice head (Ahn 2015). This is shown again in the following examples, where coreference between the IO and the DO

¹⁶Note that more complex proposals exist for the basic Bantu clausal structure, which take into account the precise morphological spell-out of verbal prefixes and suffixes. I use a simplified version throughout this chapter, following Van der Wal (2015), but my proposal applies to the more complex models as well.

cannot be expressed using *-ji-* (59a), and the strong anaphoric pronoun *mwenyewe* has to be used together with regular object agreement, as in (59b).

- (59) a. Sheila_i a- li- **ji**_{i/*j/*k-} onyesha *pro*_{REFL} John_j .
 1Sheila SM1- PST- RFM- show 1John
 ‘Sheila_i showed John_j to herself_i/*himself_j.’
- b. Sheila_i a- li- **mu**_{*i/j/k-} onyesha John_j **mwenyewe**_j.
 1Sheila SM1- PST- OM1- show 1John self
 ‘Sheila_i showed John_j to himself_j.’

Furthermore, that the locus of reflexive voice is none other than *v* is supported by morphological observations. First, although some voice heads in Swahili are presumably merged as separate heads below *v*, such as passive or causative voice heads whose morphological exponent is overtly expressed as a verbal suffix, this is not the case for reflexive voice, which has no suffixal exponent (see the discussion on voice bundling in 5.3.2). Assuming that the presence of syntactic heads is reflected by overt morphology, reflexive voice can thus be legitimately assumed to be a flavor of *v* rather than a separate head.

Second, the bundling of *v* and reflexive voice is further supported by the fact that in Swahili, OM_s and RFM_s are in strict complementary distribution, showing that they target the same slot.

- (60) *Swahili*
- a. *Maya a- li- **mu**- **wa**- pend- ezesha.
 1Maya SM1- PST- OM1- OM2- like- CAUS
 Int: ‘Maya made him like them.’ *OM+OM
- b. *Maya a- li- **mu**- **ji**- pend- ezesha.
 1Maya SM1- PST- OM1- RFM- like- CAUS
 Int: ‘Maya made him like herself.’ *OM+RFM
- c. *Maya a- li- **ji**- **ji**- pend- ezesha.
 1Maya SM1- PST- RFM- RFM like- CAUS
 Int: ‘Maya made herself like herself.’ *RFM+RFM

In his analysis of the Lubukusu RFM *-i-*, [Sikuku \(2012\)](#) notes a key difference between OM_s and RFM_s in this language: while two OM_s can never co-occur, indicating that there is only one slot for object agreement, an RFM can very well co-occur with an OM or another RFM.

- (61) *Lubukusu*
- a. *Wamalwa a- a- **mu**- **ba**- siim- isya
 Wamalwa SM1- PST- OM1- OM2- like- CAUS
 Int: ‘Wamalwa made him like them’ *OM+OM
- b. Khalayi a- a- **mu**- **i**- siim- isya
 Khalayi SM1- PST- OM1- RFM- like- CAUS

- ‘Khalayi made him like herself.’ OM+RFM
- c. Khalayi a- a- i- i- siim- isya
 Khalayi SM1- PST- RFM- RFM- like- CAUS
 ‘Khalayi made herself like herself.’ RFM+RFM

Sikuku (2012) capitalizes on this data to argue that in Lubukusu the RFM and the OM actually target different heads to incorporate: the OM targets a dedicated functional head, while the RFM actually targets a lower reflexive VoiceP. In contrast, the Swahili facts do not provide any evidence that OMs and RFMs are located on two different heads on the structure: the head accomplishing reflexivization and the transitive *v* are one and the same, accounting for the complementary distribution between OM and RFM. One could hypothesize that in Lubukusu the two heads are distinct, unlike in Swahili, yielding the co-occurrence patterns above. Based on such evidence, I thus hypothesize the presence of a v_{REFL} in Swahili, which is bundled onto *v*, analogous to French. This v_{REFL} has the exact same set of properties as in French: it bears a $[uID: _ , _]$, which syntactically encodes the requirement that *v* must mediate the agreement relationship between two matching $[ID]$ -features.

Given this, I propose that anaphoric agreement is the morphological expression of a valued pair of $[ID]$ -features on v_{REFL} . Specifically, I argue that the form *-ji-* comes about by application of the following rule.

- (62) Spell-out anaphoric agreement on a functional head when it stands in an Agree relation with two interpretable $[ID]$ -features of the same value.

Anaphoric agreement is thus the product of two core ingredients. First of all it requires a multiple valuation configuration, whereby a functional head with two unvalued $[uID]$, e.g. a v_{REFL} , stands in an Agree relation with an unvalued anaphor and a valued subject antecedent. This configuration is of course highly specific to reflexive constructions. Second, anaphoric agreement can only come about in the presence of matching $[ID]$ -features. This can only be achieved when one of the two interpretable features is unvalued, as in the case of an anaphor, which will then necessarily be valued by the other interpretable feature (the subject’s) and then automatically match. A scenario in which v_{REFL} ’s features would be valued by two nominals with inherently valued $[ID]$ -features is ruled out in virtue of Principle B, which disallows two coreferent nominals to be in the same domain if they are not syntactically bound, but also in virtue of conditions on upward Agree, since v_{REFL} cannot Agree with a *c*-commanded argument if that argument didn’t first establish an Agree relation with it through its own probing for a value.

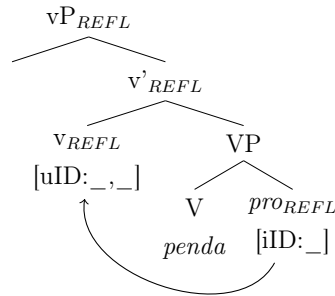
To see this, let us go through the derivation of anaphoric agreement for a sentence like (63).

- (63) Maya a- na- **ji-** penda *pro*_{REFL}.
 Maya SM1- PRS- RFM- love
 ‘Maya loves herself.’

The following derivations abstract away from φ -features. As discussed previously, no evidence permits to determine whether the anaphor has φ -features or not. Furthermore, while Swahili is a language with φ -object agreement, this trait is considered orthogonal to the need to be [ID]-feature-linked, and might be absent in another language.

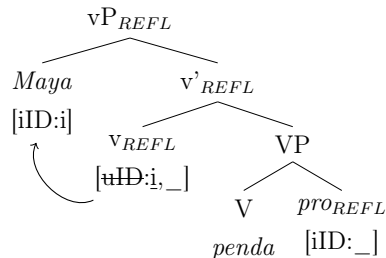
In a first step, *v* merges with a covert reflexive anaphor. This anaphor is born with an unvalued but interpretable [iID:_] feature, which it seeks to value against an antecedent. The [iID:_] feature on the anaphor therefore probes up and meets a matching [ID]-feature on *v*. However, being unvalued, *v*’s [uID:_,_] feature is not in a position to value the anaphor’s [ID]. As a result of feature sharing, the dialogue is established between *v* and the anaphor for further Agree relations.

- (64) Step 1

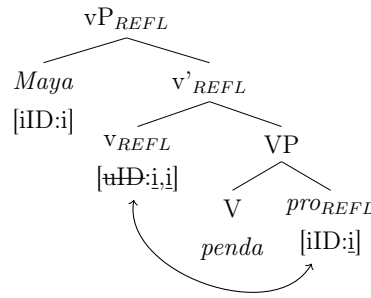


In a second step, the subject is merged into the structure, crucially with a valued [iID] feature. This c-commanding [iID] constitutes a legitimate goal for *v*’s [uID], which therefore gets checked and valued by the subject for one of its values.

- (65) Step 2



In a third a final step, the [ID]-feature of the anaphor can thus get transitively valued on the anaphor by *v*_{REFL} and in turn value its second unvalued feature, resulting in the satisfaction of all featural requirements.

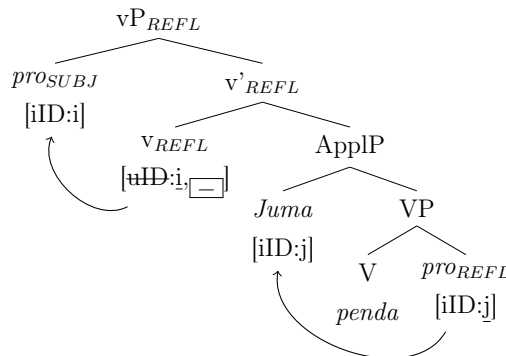
(66) *Step 3*

The functional head v thus stands in an Agree relation with both the subject and the anaphor: it gets its value from the higher DP (the subject/antecedent), and is in a feature sharing relation with the lower DP (the anaphor). As such, v_{REFL} mediates a relation between necessarily matching [ID]-features, which gets reflected in its own featural make up. Anaphoric agreement is thus the spell-out of matching [ID]-features on v_{REFL} .

This approach accounts for the behavior of anaphoric agreement in ditransitives and its obligatory local subject-orientation, and successfully rules out unattested scenarios. As mentioned previously, anaphoric agreement may not encode coreference of the subject and the direct object of a ditransitive. As was the case in French, this is due to the asymmetry between IOs and DOs, whereby IOs intervene between the v_{REFL} and the DO. As a consequence, if the multiple valuation of v_{REFL} 's features and hence anaphoric agreement are conditioned by agreement between the anaphor and v_{REFL} on the one hand and v_{REFL} and the subject on the other, we expect anaphoric agreement to not be able to occur in the presence of an intervener.

(67) *Ruled out: anaphoric agreement without multiple valuation*

- a. *A- li- **ji-** julisha Juma pro_{REFL} .
 SM1- PST- RFM- describe Juma
 Int: 'He described himself to Juma.'
- b.



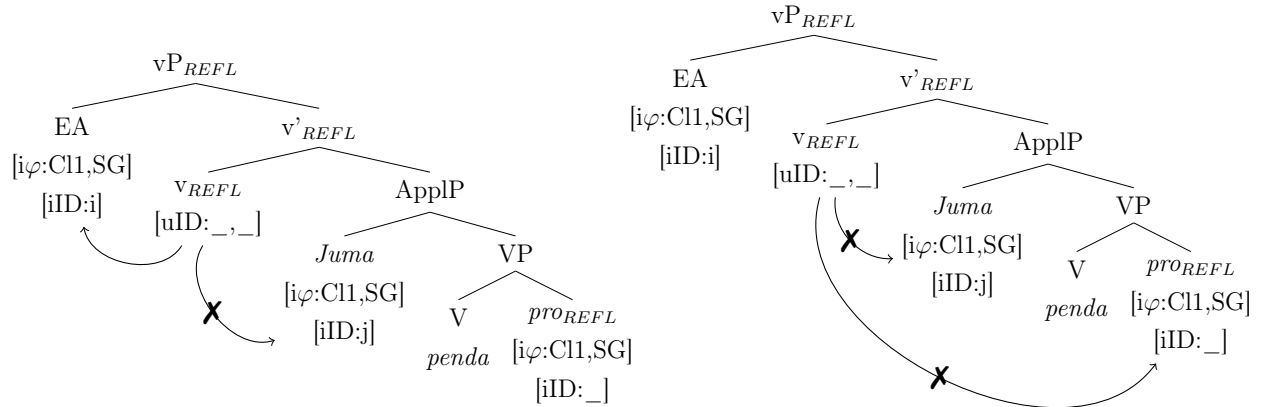
As schematized above, the anaphor's unvalued [iID] would first encounter the IO with

a valued $[iID]$, which could theoretically value it. However, the anaphor would therefore not enter into any Agree relation with v_{REFL} preventing valuation of both of its features: once again, since Agree is strictly upward, v_{REFL} cannot Agree with a lower goal unless that goal previously established an Agree relation with it through probing for its own value. Accordingly, we do not expect either anaphoric agreement on v_{REFL} or subject-DO coreference. Instead, IO-DO coreference can only be expressed as in the following example, using the emphatic anaphor *mwenyewe* and crucially without *-ji-* but with regular object agreement.

- (68) Sheila_i a- li- **mu**_{*i/j/k}- onyesha John_j **mwenyewe**_j.
 1Sheila SM1- PST- OM1- show self
 ‘Sheila_i showed John_j to himself_j.’

Scenarios in which v_{REFL} Agrees with the subject and a non-anaphoric IO, as in (69), or with the IO and the DO but not the subject as in (70) are ruled out simply in virtue of upward Agree. The system rules this out simply on the basis that unvalued $[ID]$ -features need a c-commanding goal, thus predicting only the subject can value v ’s $[uID: _]$. The subject orientation of reflexive-marked anaphors is thus straightforwardly derived by the requirements of Upward Agree.

- (69) *Ruled out: agreement with non-anaphoric IO* (70) *Ruled out: agreement with IO-DO*



An analysis of anaphoric agreement in terms of $[ID]$ -features therefore successfully derives the conditions in which the RFM *-ji-* may or may not occur, as well as its local subject-orientation. The next subsection discusses some of the advantages of the above-described approach over other possible analyses, especially in terms of φ -features, and concludes with spelling out the consequences for the features of binding.

6.2.3 Discussion and conclusions

The definition of anaphoric agreement given above thus relies on the availability of a multiple agreement configuration on the one hand and on the use of [ID]-features on the other. [ID]-features play a crucial role in deriving anaphoric agreement, as I will argue here. Indeed, one could imagine simply replacing [ID]-features by φ -features in the definition given in (62). However, instances of multiple agreement of a functional head with two interpretable φ -features do not result in anaphoric agreement. Icelandic dative-nominative constructions, involving a quirky dative subject and a nominative object, are a famous case of multiple agreement of a functional head, in this case T, with two arguments, the subject and the object.

- (71) **Mér** þóttu/þótti **þær** vera duglegar.
 1SG.DAT thought.3PL/3SG 3PL.NOM be industrious
 ‘I thought they were industrious.’ (Anagnostopoulou 2005: 6)

The optionality of φ -agreement with the nominative, as well as the person restrictions on nominative objects observed in these constructions have justified their analysis as Multiple Agreement constructions (Anagnostopoulou 2005; Bjorkman & Zeijlstra 2019). As this example illustrate, although the functional head might agree with two goals, no special agreement morphology surfaces. The Icelandic example illustrates that [ID]-features are necessary to derive this condition, and one could not simply use φ . In this example, both arguments, bearing interpretable φ -features, are in an agreement relationship with a functional head T, and both of them can potentially have the same φ -feature values. However, this does not result in anaphoric agreement.

Furthermore, another upshot of [ID]-features over a purely φ -based account is that only the former can deal with anaphoric agreement as a repair strategy of the AAE-type. Under a φ -based approach, one could also hypothesize that anaphoric agreement is the morphological result of a second probing of v for φ -features after the first probing has failed (similarly to what occurs in agreement switch, Murugesan and Raynaud to appear). Similarly to what I propose with [ID]-features, one could propose a spell-out rule that capitalizes on multiple agreement with matching φ -values. However, a strong objection is that such approaches are unable to explain why a second cycle of upward probing may obtain in the case of a φ -deficient reflexive (yielding *-ji-*), but not an other φ -deficient goal, for instance a clausal complement or an impersonal object, which trigger null agreement (as seen in 6.1.3.2).¹⁷

¹⁷The same objection carries over to the cross-linguistic parametrization of AAE repair strategies within languages. For instance, according to Murugesan (2019) and Storoshenko (2016), Shona resorts to default agreement, thus ending v’s probing after one cycle, while Kutchi Gujarati (Murugesan 2019; Murugesan & Raynaud to appear; Patel-Grosz 2014) is allowed a second cycle, resulting in agreement switch. How this parameter would be set not only across languages but also within languages is problematic.

My proposal shares some similarities with existing accounts of another linguistic phenomenon, switch reference, which I will further develop in chapter 8. Arregi and Hanink (2018, 2019) have proposed that an Agree operation with matching [ID]-features derives switch reference morphemes on Washo complementizers. They propose that a functional head, C, bears an unvalued [ID] feature, that agrees with two valued [ID] on different arguments. Upon multiple agreement, the functional head bears two values for [ID], such as [ID:i,i], which if they match give rise to the complementizer version of anaphoric agreement. While the insight behind my proposal is comparable to theirs, a crucial difference is that one of the agreeing arguments in the Swahili case is anaphoric. The consequence of this is that it is born with an unvalued [ID], which is only valued later on in the derivation. As a result, it cannot serve as an immediate goal for the agreeing head *v*.

Instead, my approach appeals to a certain notion of derivational history, whereby an agreeing head keeps a record, beyond the simple feature values obtained, of the relations that it stands in. In that sense, my proposal shares the insight of Baker and Souza (2019) and Clem (2019). For instance, Baker and Souza (2019) propose a mechanism of Agree-Link, which keeps track of the links established between agreeing heads and which is not necessarily associated to Agree-copy, i.e. copying of values. However, one essential weakness of these approaches, on top the ones associated with the use of φ -features, is that they assume that Agree-links (called ‘pointers’) survive to LF and are interpreted as indications of referential dependency.

- (72) A head *H* bearing pointers to two DPs, α and β , is equivalent to α and β bearing the same numerical index. (Baker & Souza 2019: 24)

In other words, they resort to an additional condition converting their notion of Agree-Link to semantic coreference via coindexation. This is essentially built in my own proposal, which therefore does not require any extra assumption for the interpretation of anaphoric agreement markers. While Baker and Souza’s proposal is essentially developed to account for switch reference markers, they make a step towards extending it to verbal reflexive markers, therefore explicitly linking the two domains, an avenue that I will pursue in chapter 8.

Concluding, this section has proposed an analysis of the verbal reflexive marker -*ji*- in the Bantu language Swahili, arguing that it is a form of anaphoric agreement, after Woolford (1999). I have argued that anaphoric agreement can be analyzed as the morphological expression of a reflexive voice head (v_{REFL}) agreeing with two matching [ID]-features, which arises because v_{REFL} mediates the [ID]-agreement relation between the anaphor and its antecedent, as defined below.

- (73) Spell-out anaphoric agreement on a functional head when it stands in an Agree relation with two interpretable [ID]-features of the same value.

The structure of Swahili *-ji-* reflexives is consistent with that proposed for French *se-* reflexives, with which they share many core properties, such as their local subject-orientation and intervention effects in DOCs. Swahili differs from French in that it spells out its matching pair of [ID]-features on v_{REFL} using a special agreement morpheme, while French does not. Anaphoric agreement in Swahili thus offers empirical evidence for the role of [ID]-features in reflexive binding. Indeed, as argued for since the beginning of this chapter, analyses in terms of φ -features fail to derive anaphoric agreement, which in contrast gets straightforwardly accounted for with [ID]-features. The next section will show that reflexives in Swahili also behave exactly as predicted by their analysis in terms of [ID]-features: in double objects constructions, they pattern like 1st/2nd person objects, thus allowing us to extend my analysis of PCC effects to languages with anaphoric agreement like Swahili.

6.3 Anaphoric agreement and person agreement: Swahili

The previous section has shown that Swahili has a dedicated agreement marker for agreement with reflexive objects, which cannot be straightforwardly accounted for as φ -feature agreement. Instead, I have proposed that anaphoric agreement is best analyzed as agreement with matching [ID]-features, thereby providing support to the claim that [ID]-features are syntactically and morphologically active and that they are present in the featural make-up of reflexive anaphors. A prediction of the account outlined for anaphoric agreement is that whenever anaphors can be shown to bear [ID]-features and to be bound via v_{REFL} , as in the case of Swahili, they should also be subject to PCC-like effects under the right structural configuration (e.g. given a higher intervener). Furthermore, in previous chapters, the role of [ID]-features in syntax and in anaphoric binding was also supported by independent facts about the common behavior of reflexive anaphors and 1st and 2nd person pronouns in PCC contexts, leading me to hypothesize that [ID]-features also underlie person licensing. A direct prediction of this is that 1st/2nd person items in such a language, if they are weak pronouns, should also show PCC-effects. This section will show that both of these predictions are indeed borne out, offering strong support to a theory of [ID]-features in reflexive binding and person licensing. I will first show that 1st/2nd person DOs are disallowed in Swahili DOCs, a standard PCC effect (following [Riedel 2009](#)). I will then go on to demonstrate that reflexive DOs coindexed by anaphoric agreement are also subject to this restriction. This constitutes an original finding of this thesis, based on novel data collected through interviews with native speakers of Swahili. I will then proceed to show that these restrictions can be derived straightforwardly by the model proposed above for person licensing, binding and anaphoric agreement.

6.3.1 Anaphoric agreement and PCC effects

6.3.1.1 PCC effects with 1st and 2nd person OMs

PCC effects with 1st/2nd person have been reported in several Bantu languages, including Sambiaa (Baker 2008; Duranti 1979; Riedel 2009), Haya (Riedel 2009) or Lubukusu (Sikuku 2012), and most thoroughly investigated by Riedel (2009). As I will show here, following on Riedel (2009), Swahili is one of the languages where 1st/2nd person are subject to the PCC in DOCs. These person restrictions, which are *prima facie* different from Romance-style PCC effects which involve clitic combinations, can be shown to result from exactly the same mechanisms, namely (i) a licensing requirement for 1st and 2nd person weak pronouns and (ii) intervention of the IO in DOCs. Swahili DOCs abide by the following generalization, which corresponds to the weak version of the PCC.

- (74) In a DOC, if there is a 3rd person indirect object, then the direct object should also be 3rd person.

To show this, consider the following pair.

- (75) a. U- li- **wa-** onyesha **watoto** *Juma*.
 SM.2SG- PST- OM2- show 2children 1Juma
 ‘You showed Juma to the children.’ 3 IO > 3 DO
- b. *Ni- li- **mu-** onyesha **Maya** *pro*_{2SG}/wewe.
 SM.1SG- PST- OM.2SG- show 1Maya you
 Int: ‘I showed you to Maya.’ *3 IO > 1/2 DO

Both sentences are DOCs, featuring a 3rd person IO, *watoto* ‘children’ in (75a) and *Maya* in (75b), which trigger agreement on the verb. Recall that Swahili only has one object agreement slot, i.e. one OM, which always coindexes the highest object, i.e. the IO (see 6.1.2.4). But the sentences in (75) differ from each other in one aspect, namely the person of their DO: in (75a), the DO *Juma* is a 3rd person DP, while in (75b), it is a 2nd person silent pronoun. Only the latter gives rise to ungrammaticality, showing a 1st/2nd vs 3rd person split.

In contrast, the following sentence, where the 2nd person is now an IO and the 3rd person a DO, is grammatical, showing that this restriction only applies to 1st/2nd person DOs.

- (76) A- li- **ku-** onyesha *pro*_{2SG} *Halima*.
 SM1- PST- OM.2SG- show 1Halima
 ‘He introduced Halima to you.’ 1/2 IO > 3 DO

Finally, as (77) illustrates, a combination of a 2nd person IO and a 1st person IO is grammatical, which is characteristic of the weak PCC.

- (77) A- li- **ku-** onyesha **pro**_{2SG} *mimi*.
 SM1- PST- OM.2SG- show me.
 ‘He showed me to you.’ 1/2 IO > 1/2 DO (Riedel 2009:152)

Swahili indeed seems to disallow *3 IO > 1/2 DO combinations, but allows combinations of two 1st or 2nd person objects 1/2 IO > 1/2 DO. The pattern observed in Swahili ditransitives can be summed up in the table below, and characterized as the weak PCC: in the presence of a 3rd person IO, the DO must be 3rd person.

Table 6.4: PCC effects with 1st/2nd agreement markers in Swahili

IO	DO	Swahili
3	3	✓
3	1/2	✗
1/2	3	✓
1/2	1/2	✓

While this pattern exactly parallels the effects of the PCC in other languages, Swahili exhibits some inherent characteristics that differ from more classical PCC languages, like French and Italian. In what follows, I address in more details the specificities of Swahili, and show that nevertheless the restrictions found with 1st and 2nd person in DOCs are to be attributed to the PCC.

First of all, PCC effects do not arise as the ungrammaticality of a clitic cluster, but rather as a ban on a given structural hierarchy of objects. Indeed, as pointed out again above, there is only one object agreeing slot in Swahili, which is furthermore an asymmetric language, where the IO c-commands the DO (see 6.1.2). As a result, most DOs that would require OM in simple transitive clauses (e.g. DOs that refer to humans and are class 1/2) do not require OM if they appear as the DO of a ditransitive. For instance, the class 1 object *Maya* triggers obligatory agreement when it is the DO of a simple transitive clause as in (78a), but is no longer marked when it is the DO of a ditransitive as in (78b).

- (78) a. A- li- ***(mu)-** ona **Maya**.
 SM1- PST- OM1- see 1Maya
 ‘He saw Maya.’
 b. U- li- **wa-** onyesha **watoto** *Maya*.
 SM.2SG- PST- OM2- show 2children 1Maya
 ‘You showed Maya to the children.’

However, 1st/2nd person DOs pattern differently in this type of configuration: if the DO of a ditransitive is 1st/2nd person, like *wewe* ‘you’ in (79), it cannot be left unmarked to the benefit of the IO, unlike 3rd person DOs like *Maya* above. Agreement of a 1st/2nd

person is obligatory, even in a DOC.

- (79) *Ni- li- **mu-** onyesha **Juma** wewe.
 SM.1SG- PST- OM1- show 1Juma you
 Int: ‘I showed you to Juma.’ (Riedel 2009:151)

As shown by the contrast between (78b) and (79), the ungrammaticality of the latter cannot be attributed to the obligatoriness of a wider class of nominals to Agree. While this requirement holds for all animates in simple transitives, it is dropped in ditransitives, and the restriction only concerns 1st/2nd person, pointing towards a type of person restriction.

Furthermore, in order to express the intended meaning of (79) grammatically, it is not enough to just mark the 1st/2nd person DO on the verb. Indeed, if a 1st/2nd person object is marked on the verb in the presence of a 3rd person overt object, the 1st/2nd person agreement cannot be interpreted to refer to the DO. It can only be interpreted as referring to the IO.

- (80) Ni- li- **ku-** onyesha Maya *pro*_{2SG}.
 SM.1SG- PST- OM.2SG- show 1Maya
 *‘I showed you to Maya.’ *3 IO > 1/2 DO
 ✓ ‘I showed Maya to you.’ 1/2 IO > 3 DO

The patterns observed above are thus expected in view of this asymmetry between the IO and the DO: as the IO structurally intervenes between the agreeing φ -probe and the DO, the DO of a DOC could never be co-indexed by the OM, as it would require the φ -probe to skip the IO. Therefore, if there are two objects, any argument that is indexed by the OM can only be interpreted as the IO.

The meaning *I showed you to Maya* can be expressed by introducing the IO as a PP headed by the preposition *kwa* ‘to’.

- (81) Ni- li- **ku-** onyesha *pro*_{2SG} kwa Maya.
 SM.1SG- PST- OM.2SG- show PREP 1Maya
 ‘I showed you to Maya.’

The PP *kwa Maya* no longer counts as an intervener, as it is no longer introduced by the verb itself, but by a lower preposition, allowing the DO to agree with the verb freely. This is the equivalent of the French prepositional dative construction described by Béjar and Rezac (2003) as a ‘repair’-construction for the PCC.

So the PCC in Swahili comes about as the interplay of two constraints, exactly parallel to those of the classical Romance PCC, despite independent language-internal constraints. First, 1st/2nd person must obligatorily be licensed by Agreeing with a functional head both in simple transitives and in DOCs. Second, in DOCs, IOs structurally intervene between

the DO and the agreeing functional head, preventing licensing of the DO if it is 1st or 2nd person. The consequence of the PCC in Swahili is that a DOC with a 1st/2nd DO is ineffable, and the corresponding meaning can only be expressed using a prepositional dative construction. Unlike the Romance PCC, which manifests itself in the ban of certain clitic combinations, Swahili may regardless never encode two objects as OMs, and thus the person restriction does not take the form of a ban on a combination of OMs. Instead, the requirement for person licensing overtly manifests itself in a language like Swahili by obligatory overt φ -agreement with a 1st/2nd person object, which I argue is the reflex of the independent requirement that a 1st/2nd person weak pronoun establishes an Agree relation with v for [ID]-features. The effects of the PCC are thus observed when the agreement requirement cannot be achieved due to a structural intervener, taking the form of two conflicting constraints: obligatory Agreement on the one hand but impossible Agreement on the other.

6.3.1.2 PCC effects with anaphoric agreement

Swahili anaphoric agreement, which encodes agreement with a covert anaphor *pro_{REFL}* and the subject, is expected to pattern like 1st and 2nd person OMs. Indeed, the hypothesis is that both reflexive and 1st/2nd person objects, be they overt or not, need to establish a relationship with v in order to be licensed. This agreement relationship results in overt [ID]-agreement, i.e. anaphoric agreement, in the case of reflexive objects, and 1st or 2nd person φ -agreement in the case of 1st/2nd person objects. We therefore expect anaphoric agreement to be impossible with the reflexive DO of a DOC due to the intervention of the IO for [ID]-agreement, in the same way as 1st/2nd person agreement was impossible in that case. At the same time, we expect the relationship between v_{REFL} and the reflexive to be necessary in order for the latter to obtain its index from the subject and for v_{REFL}'s features to be satisfied. Exactly this pattern can be observed of Swahili *-ji-*.

In the presence of an IO, the DO cannot be reflexive in a DOC. (82) shows that a DOC with a 3rd person agreeing IO, *Juma*, and an overt reflexive DO is ungrammatical.

- (82) *Ni- li- **mu-** onyesha **Juma** *mwenyewe*.
 SM.1SG- PST- OM1- show 1Juma self
 Int: 'I showed myself to Juma.' *3 IO > REFL DO

In contrast, the RFM can freely co-index the IO of a ditransitive.

- (83) A- li- **ji-** andikia *pro_{REFL}* barua.
 SM1- PST- RFM- write.APPL letter
 'He wrote a letter to himself.' REFL IO > 3 DO

Like in the case of 1st/2nd person, the ungrammaticality of (82) cannot be circumvented by just coindexing the reflexive DO with the RFM: this is ruled out due to the intervention

of the IO between the anaphor and v_{REFL} . A DOC with an RFM can only be interpreted as having a reflexive IO, not a reflexive DO, as the RFM may not co-index the DO in such a construction.

- (84) A- li- **ji-** julisha Juma pro_{REFL} .
 SM.1SG- PST- RFM- describe 1Juma
 *‘He described himself to Juma.’ *3 IO > REFL DO
 ✓ ‘He described Juma to himself.’ REFL IO > 3 DO

This meaning can be expressed by using the prepositional dative construction, consistently with the pattern found with 1st and 2nd person DOs.

- (85) U- li- **ji-** julisha pro_{REFL} kwa Juma.
 SM.2SG- PST- RFM- describe PREP 1Juma
 ‘You described yourself to Juma.’

The same constraints hold when the IO, i.e. the intervener, is 1st/2nd person (IO 1st/2nd > DO REFL). Such a combination can only be expressed using a prepositional dative construction, as illustrated below.

- (86) a. Ni- li- **ji-** julisha kwako.
 SM.1SG- PST- RFM- describe PREP.2SG
 ‘I described myself to you.’
 b. U- li- **ji-** bandika kwami.
 SM.2SG- PST- RFM- stick PREP.1SG
 ‘You stuck yourself to me.’
 c. Sheila a- li- **ji-** elezea mwenyewe kwangu.
 Sheila SM- PST- RFM- describe self PREP.2SG
 ‘Sheila described herself to me.’

Again, restrictions on reflexive DOs in Swahili come about as the interplay of two requirements. On the one hand, marking of *-ji-* is obligatory even in ditransitives, signalling an obligatory agreement relationship between the reflexive and the verb (the v_{REFL}) for the former to receive an index. On the other hand, this relationship is rendered impossible by the intervention of the IO in DOCs, resulting in the ungrammaticality of the combination IO 3rd > DO REFL. The following table summarizes the PCC patterns of Swahili with 1st/2nd person and reflexives. Unfortunately, I have not been able to secure data as to the combination of a 1st/2nd person DO and a reflexive IO. This combination is however expected to be ungrammatical.

Table 6.5: PCC effects with 1st/2nd and reflexives in Swahili

IO	DO	Swahili
3	1/2	✗
3	REFL	✗
3	3	✓
1/2	3	✓
1/2	1/2	✓
1/2	REFL	✗
REFL	3	✓
REFL	1/2	no data

6.3.2 Analysis

The pattern found with Swahili anaphoric agreement supports the generalization that reflexive anaphors and 1st and 2nd person belong to a natural class and pattern together in environments subject to person restrictions, such as DOCs. This suggests that reflexives, like 1st and 2nd person, need to be Agreed with in order to be licensed in a derivation. This requirement, as I argued in chapter 3 and 4, is motivated by the need of these pronominals to be anchored in the syntactic context in order to obtain their reference. This requirement is formulated as the Context-Linking Requirement (CLR). Further, I argued in previous chapters that this requirement cannot be encoded by φ -features, due to a variety of empirical and theoretical reasons. Instead, based on insights from the literature on reflexive binding, I hypothesized that the features that underlie relations of context-linking in syntax are [ID]-features, which take referential indices as values.

The patterns uncovered for Swahili thus not only confirm the empirical observation that 1st person, 2nd person and reflexives pattern together, but also constitute powerful evidence in favor of [ID]-features and against φ -features. Indeed, the previous section showed that φ -features do not successfully account for the dedicated form of anaphoric agreement. Rather, anaphoric agreement is the morphological expression of coreference on a mediating functional head, i.e. agreement with two coindexed arguments, regardless of φ -feature distinctions. On this basis, I have argued that anaphoric agreement is the manifestation of agreement of a reflexive voice head v_{REFL} for two matching [ID]-features. Anaphoric agreement thus constitutes overt evidence of reflexive licensing without φ -features, and with only [ID]-features. The consequence of this is that since 1st and 2nd person pattern like reflexives, and assuming that their licensing requirement is due to the same underlying feature, this feature can only be argued to be [ID], since φ -features have been excluded for anaphoric agreement. The common behavior of anaphoric agreement

and $1^{st}/2^{nd}$ person agreement thus lends strong support to the claim that [ID]-features are responsible for person licensing. Of course, this reasoning relies on the assumption, which I believe to be motivated on conceptual grounds, that both the licensing of reflexives and of $1^{st}/2^{nd}$ person are due to one and the same feature. In practice, one could of course postulate that person licensing is powered by participant features and anaphoric licensing by [ID]-features. For reasons exposed in part I, I believe this would be theoretically undesirable.

With these conclusions in hand, I can now offer an analysis for the licensing of both $1^{st}/2^{nd}$ person objects on the one hand, and reflexive anaphors and anaphoric agreement, as well as for the PCC in Swahili.

6.3.2.1 Deriving the PCC for $1^{st}/2^{nd}$ person in Swahili

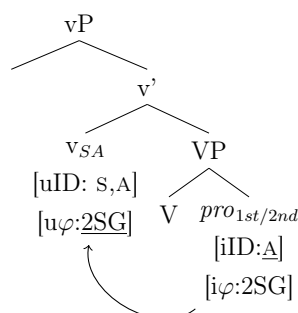
My central claim is that context-sensitive items, like 1^{st} and 2^{nd} person, need to be licensed by agreeing with a syntactic representation of context, which I argue is located in *v*.

While in the case of French, it is overt clitic pronouns that needed licensing, in Swahili these pronouns are often null and of the *pro* kind, though of course they also have the possibility of being overt. Object markers, therefore, are not the licensees themselves. They are merely a reflex of the φ -agreement relation of the licensee with the licensing head, which in the case of Swahili is also a φ -probe (which as stated above agrees downward).

In a simple transitive, a 1^{st} or 2^{nd} person DO is licensed as follows, according to the now familiar upward Agree relation between the context-sensitive pronoun's unvalued [iID: $_$] and its valued counterpart located on *v*, which functions as a speech act center. This relation is obligatory in order to satisfy both the pronoun's [ID]-feature and *v*'s φ -feature, also accounting for the obligatoriness of φ -agreement with $1^{st}/2^{nd}$ person objects. Again, I assume *v*'s [uID] is trivially checked by a higher interpretable instance of [ID], e.g. on the subject.

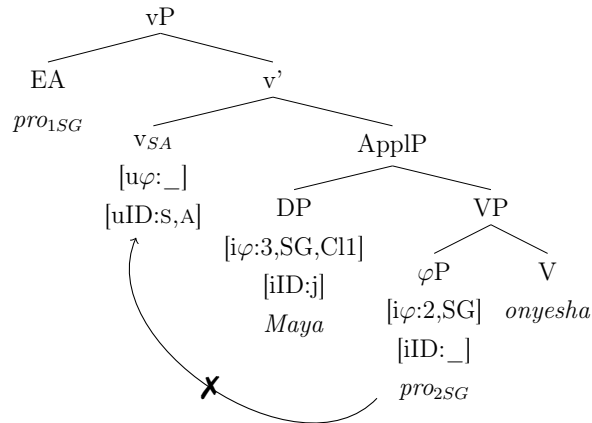
(87) Licensing of a $1^{st}/2^{nd}$ person DO

- a. A- li- ***(ku)**- ona *pro*_{2SG}.
 SM1- PST- OM.2SG- see
 'He saw you.'
- b.



In a DOC, context-linking of the 1st/2nd pronoun is prevented by the intervention of the IO. Consider the following ungrammatical sentence, involving a 2nd person DO and a 3rd person IO.

- (88) a. Ni- li- **mu/ku-** onyesha **Maya** *pro*_{2SG}.
 SM.1SG- PST- OM1/OM.2SG- show 1Maya you
 *‘I showed you to Maya.’ *3 IO > 1/2 DO
 ✓ ‘I showed Maya to you.’ 1/2 IO > 3 DO
- b. *3 IO > 1/2 DO

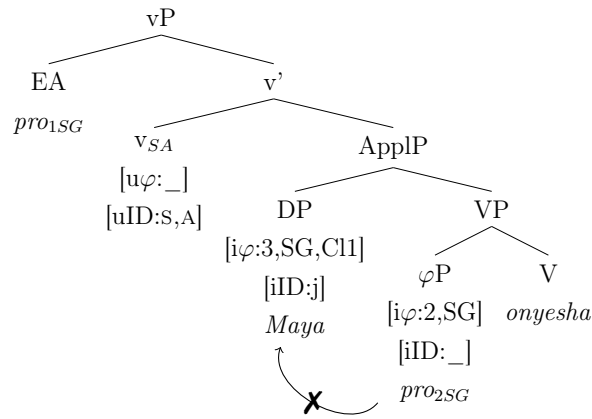


The configuration is exactly the same as in French: the IO, here *Maya*, intervenes between v_{SA} and the 2nd person pronoun. Note that in Swahili, a (morphologically) caseless language, the intervening argument does not bear dative case and thus cannot be taken to bear a KP.¹⁸ 3rd person IOs, such as *Maya*, are thus assumed to simply be DPs with a valued [ID]-feature. The tree in (88b) also shows how it is impossible to derive 2nd person singular φ -agreement on v in this configuration: the 2nd person argument is simply not accessible by v 's φ -probe. This φ -probe could of course agree with the IO for its class 1. However, this would not satisfy the context-linking requirement of the context-dependent DO, thus also leading to ungrammaticality.

Once again, it is not possible for the context-sensitive DO to agree with the [ID]-feature of the IO. In a scenario like (88a), where the φ -features of the IO and the DO are mismatched, this is ruled out at LF by a clash in the presuppositional content of mismatching φ -features and [ID]-features: two DPs typically cannot have the same reference but mismatching φ -features.

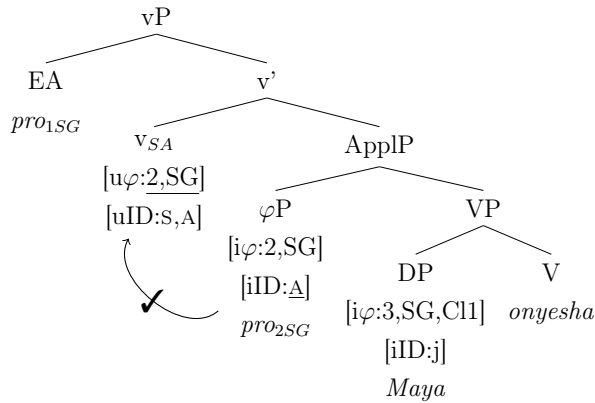
¹⁸The existence of abstract case in Bantu languages is however controversial, see e.g. [Diercks \(2012\)](#) and [Van der Wal \(2015\)](#) for discussion.

(89)



In contrast, the sentence in (88a) above is grammatical under a reading where the 1st/2nd person gets interpreted as the IO and the 3rd person as the DO. This follows straightforwardly from the 1st/2nd person item being the highest of the two objects, and being able to value its [ID]-feature against v and value v's φ -feature in return.

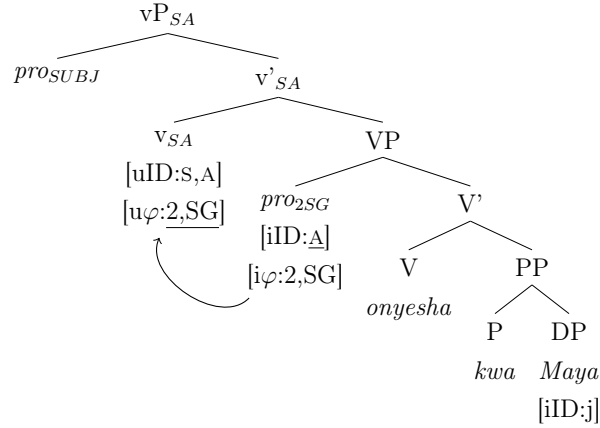
(90) 1/2 IO > 3 DO



For the same reason, a 1st/2nd person DO can be licensed in a prepositional dative construction, where the IO is expressed as a lower PP and does not intervene.

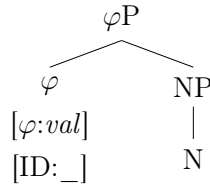
(91) 1st/2nd person licensing in a prepositional dative construction

- a. Ni- li- **ku-** onyesha kwa Maya.
 SM.1SG- PST- OM.2SG- show PREP Maya
 'I showed you to Maya.'
- b.



Last, unlike French, Swahili has the weak PCC, and allows IO $1^{st}/2^{nd} > \text{DO } 1^{st}/2^{nd}$ combinations. In section 4.3.5, I proposed that the weak PCC comes about as a result of different structural and featural make-up of pronouns cross-linguistically. In languages with the weak PCC, $1^{st}/2^{nd}$ pronouns acting as IO lack a D-layer which would endow them with a valued [ID]. Instead, they consist only of φ P (and in languages with case, such as Italian, a KP). Since Swahili does not have case, and has the weak PCC, the structure of any $1^{st}/2^{nd}$ person pronoun is thus assumed to look as follows.

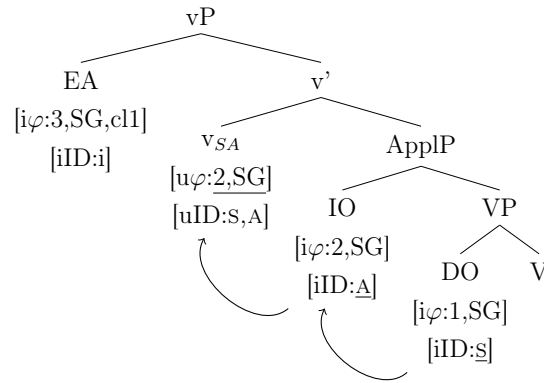
(92) All $1^{st}/2^{nd}$ person pronouns in Swahili



This holds for 1^{st} and 2^{nd} person *pro*, but also arguably for the overt form of the pronouns, 1^{st} person *mimi* or 2^{nd} person *wewe*, whose use does not seem to obviate PCC effects. In a DOC involving two 1^{st} or 2^{nd} person pronouns, the derivation thus proceeds as follows.

(93) The weak PCC in Swahili

- a. A- li- **ku-** onyesha *pro*_{2SG} mimi.
 SM1- PST- OM.2SG- show me.
 ‘He showed me to you.’ $1/2 \text{ IO} > 1/2 \text{ DO}$ (Riedel 2009:152)
- b.



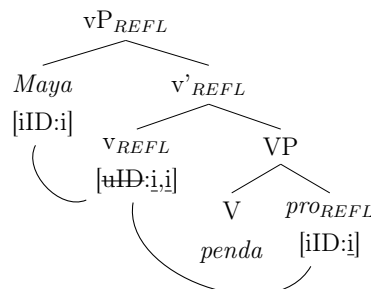
When the unvalued [ID]-feature of the 1st person DO probes up, it first encounters the equally unvalued [ID]-feature of the 2nd person IO. Since the latter lacks a value, it cannot satisfy the DO's probe, which therefore keeps probing to v. As proposed in 4.3.5, the unvaluedness of 1st/2nd person IOs make them transparent for [ID]-agreement with a higher goal, in this case v_{SA}. The respective φ -features of the DO and the IO ensure that each of them gets valued with the [ID]-value corresponding to the presupposition involved by their φ -features.

The system developed in chapter 4 and applied to French in chapter 5 can thus also be successfully applied to PCC-effects with 1st/2nd person in Swahili, including the derivation of weak PCC effects. Let us now turn to the restrictions with reflexives.

6.3.2.2 Deriving the PCC for reflexives in Swahili: anaphoric agreement in ditransitives

Restrictions on reflexive DOs in ditransitives arise through the same mechanism as for 1st/2nd person DOs. Reflexive anaphors are born with an unvalued [ID]-feature which need to be valued by a valued instance of [ID]-located on the subject antecedent. As seen in 6.2, this valuation happens via the functional head v_{REFL}, resulting in anaphoric agreement.

- (94) a. Maya a- na- **ji-** penda *pro*_{REFL}.
 Maya SM1- PRS- RFM- love
 'Maya loves herself.'
 b.

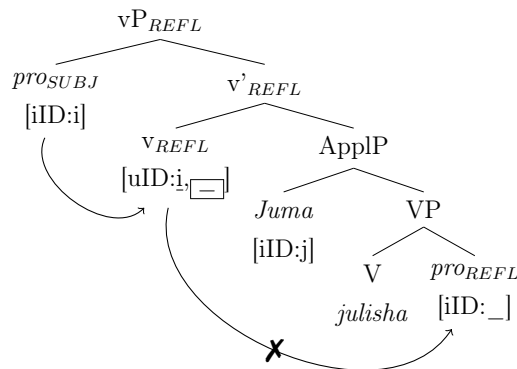


A DOC whose DO is anaphoric gives rise to a configuration which not only prevents the reflexive DO from being licensed, but also anaphoric agreement from being derived, in accordance with the attested data. Consider the following ungrammatical example, illustrating a DOC with a 3rd person IO and a reflexive DO.

- (95) *A- li- **ji-** julisha Juma *pro*_{REFL}.
 SM.1SG- PST- RFM- describe 1Juma
 Int: ‘He described himself to Juma.’

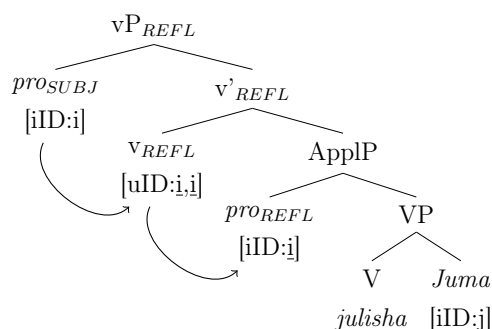
Given the structure proposed above for DOCs, this configuration would not allow the anaphoric DO to be valued by a subject antecedent through *v*_{REFL} due to the presence of the intervening indirect object. Not only is the licensing of an [ID]-reflexive by the subject impossible in this configuration, but it is also impossible to derive anaphoric agreement on *v*. Indeed, in order to obtain anaphoric agreement, what is needed is multiple agreement of *v* with matching [ID]-features, satisfying *v*_{REFL}’s featural requirements. This can only arise if a lower argument with an unvalued [ID]-feature probes up and establishes an Agree relation with *v*_{REFL}. If the reflexive is the DO, due to intervention of the IO it cannot establish an Agree relation with *v*_{REFL}, whose second [ID]-value remains unvalued.

- (96) *Failure of reflexive binding by the subject = failure to derive anaphoric agreement*



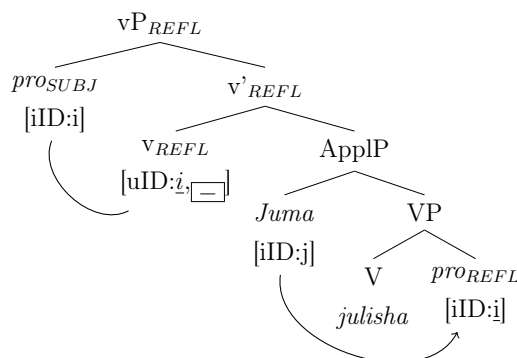
As expected, anaphoric agreement can only obtain if the subject binds the reflexive IO, but not the DO, as attested by the grammaticality of (97a) below when interpreted as *He described Juma to himself*, where the reflexive refers to the IO.

- (97) a. A- li- **ji-** julisha *pro*_{REFL} Juma.
 SM.1SG- PST- RFM- describe Juma
 ‘He_i described Juma_j to himself_{i/*j}.’
 b.



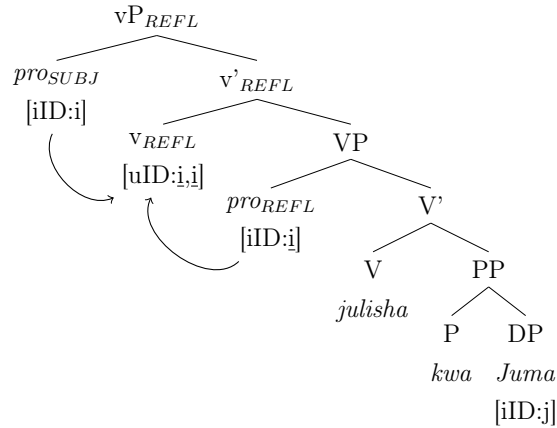
Neither anaphoric agreement nor licensing of the anaphor can be achieved if the reflexive DO would get its value from the IO. First of all, this would not achieve the multiple agreement needed by v_{REFL} to derive anaphoric agreement, as described above, since v_{REFL} could not agree downwards neither with the IO nor with the DO. Additionally, previous chapters have established that matching features is not enough to derive reflexivity: in languages like French or Swahili, the involvement of v_{REFL} and hence satisfaction of its features is necessary to derive other other properties of reflexives (e.g. subject-orientation) but also crucially contribute a reflexivizing function. Matching features between the IO and the DO without the involvement of v_{REFL} therefore fail to license a grammatical reflexive construction.

(98) *Failure to derive anaphoric agreement: IO-DO coreference*



Finally, as was the case with 1st/2nd person DOs, a prepositional dative construction can successfully circumvent this restriction, as depicted in the following tree where the reflexive DO now c-commands the prepositional IO.

- (99) a. U- li- **ji**- julisha kwa Juma.
 SM.2SG- PST- RFM- describe PREP Juma
 ‘You described yourself to Juma.’
 b.



In summary, Swahili reflexives and anaphoric agreement behave as expected if reflexives belong to the class of context-sensitive items like 1st/2nd person pronouns: their licensing is restricted in DOCs. Modeling their derivation in terms of [ID]-features yields correct results, while capturing the unique featural contribution of anaphoric agreement, which surfaces on agreeing reflexive voice heads.

6.3.3 The categorial distribution of anaphoric agreement: a note on Baker’s SCOPA

This section explores an interesting parallelism between the categorial distribution of anaphoric agreement and that of 1st/2nd person φ -agreement, which only seem to surface on some grammatical categories. This similarity was noted by Baker (2008: ch.4), who addressed it as a meaningful extension of his analysis of person agreement, known as the Structural Condition On Person Agreement (SCOPA). I will first address Baker’s generalization and how it applies to Swahili, before broadening the discussion as to how Baker’s SCOPA fits within the present analysis.

Baker (2008) makes the important observation that φ -agreement in 1st/2nd person features is found only on a subset of grammatical categories. Person agreement is cross-linguistically found on verbs, but not on adjectives or on nouns, as illustrated by examples from Swahili below. The 1st person singular subject agreement marker *ni* is found on verbs across all three examples. However, it is significantly absent on the adjective *refu* ‘tall’ in (100b), which only agrees in noun class/gender (class 1), and on the predicative noun *jana* ‘child’ in (100c), which does not agree but only inflects for its own gender (class 7).¹⁹

- (100) a. **Ni**-li-kuwa **ni**-ki-som-a.
 SM.1SG-PST-be SM.1SG-CONT-read-FV
 ‘I was reading.’

¹⁹Additionally, across languages adpositions and determiners seem to be able to inflect for person agreement, while degree heads or adverbs never do. I leave the case of complementizers aside here (for a discussion see Baker 2008: 117-121).

- b. **Ni-Ø** **m-refu.**
 SM.1SG-be CL1-tall
 ‘I am tall.’
- c. **Ni-li-po-kuwa** **ki-jana...**
 SM.1SG-PST-when-be CL7-child
 ‘When I was a child... ’
- (Ashton 1949 in Baker 2008: 12)

So agreement for person features seems to be more restricted than number or gender agreement, in terms of the categories on which it may appear.

This observation is closely tied to another one, namely that person φ -agreement on verbs (T or v) seems to be impossible under certain syntactic configurations, e.g. in constructions with oblique subjects where the probe looks to agree with a lower object, or in Long-Distance Agreement (LDA) configurations, where a probe in the matrix clause looks to agree with a goal in the embedded clause.²⁰

These restrictions on the categorial and syntactic distribution of person agreement lead Baker to hypothesize that person agreement is restricted to highly local syntactic configurations. He argues that φ -agreement in person features can only happen if the agreement controller (the goal) is very local to the agreeing head (F), and in particular is merged in the specifier or complement position of the agreeing head F. This condition is formulated as the Structural Condition on Person Agreement (SCOPA).

(101) *The Structural Condition on Person Agreement (SCOPA)*

A functional category F can bear the features +1 or +2 if and only if a projection of F merges with an NP that has that feature, and F is taken as the label for the resulting phrase.

As per SCOPA, person agreement can only occur between F and a NP in one of the following configurations:

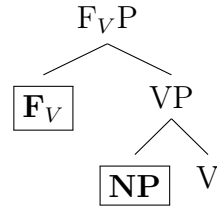
- (102) a. $[_{FP} \text{ NP}_{[i\pi]} \text{ F}_{[u\pi]} \text{ XP}]$
 b. $[_{FP} \text{ XP} \text{ F}_{[u\pi]} \text{ NP}_{[i\pi]}]$

The SCOPA thus explains the fact that only certain categories, like T or v, can agree in person. These categories are the ones which can directly merge with NPs, whereas AdjPs, which never agree in person, cannot. In other words, unlike verbs, adjectives (or nouns) do not take subjects/specifiers directly, resulting in the following structures. In (103), the functional head that is the locus of agreement (F_V , corresponding T or I), immediately c-commands the agreeing NP. In contrast, in the case of an adjective as shown in (104), the subject NP is introduced by a higher PredP, thus not only reversing the c-command

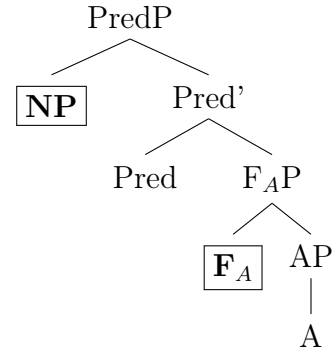
²⁰This generalization has been challenged by Preminger (2011), who shows that LDA in person is possible in substandard Basque, calling for a weakening of the SCOPA.

relation, but also introducing an intervening head (Pred) between the target (F_A) and the controller (NP), therefore violating the SCOPA.

(103)



(104)



Baker (2008) argues that precisely the SCOPA is behind PCC-effects. In a DOC, a 1st or 2nd person DO NP is not in the appropriate SCOPA-configuration to trigger person agreement on the verb, due to intervention in the IO. Consequently, it fails to be licensed, resulting in PCC-effects. Baker's insight about the reason behind such specific conditions on person φ -agreement is very similar to what I propose. His own formulation of the Person Licensing Condition reads as follows.

(105) *The Person Licensing Condition (PLC)*

(Baker 2008)

- a. A DP/NP is first person only if it is locally bound by the closest c-commanding S or by another element that is first person.
- b. A DP/NP is second person only if it is locally bound by the closest c-commanding A or by another element that is itself second person.
- c. Otherwise, a DP/NP is third person.

That is, in order to be licensed, 1st/2nd person items must be *locally bound* by a syntactic representation of the speaker (S in the above definition) or the addressee (A). In Baker's analysis, this binding is achieved by an Agree relation, none other than φ -agreement, and crucially in a very strict local configuration, described in the SCOPA. But his key insight is that person licensing can in that sense be equated with binding, which is also the central claim of the present work.

A direct prediction of Baker's account, which he briefly addresses in the appendix to his chapter 4, as well as of my own analysis, is that anaphoric agreement should be restricted to the same categories as person agreement. As Baker himself reports, this prediction is borne out in Chichewa; my own data confirms that it is also borne out in Swahili. As illustrated in the following examples, 2nd person *pro* triggers 2nd person agreement on the verb, but not on the adjective, which only inflects for number and gender (Cl.1: singular, animate). Similarly, a reflexive *pro* triggers anaphoric agreement on the verb but not on

the adjective. Such a restriction does not seem to impact 3rd person objects.

- (106) a. Ni- me- **wa-** fanya (simba) wa-we **wa-** kali.
 SM.1SG- PFV- **OM2-** make 2lions CL2-be **CL2-** fierce
 ‘I made the lions/them fierce.’
- b. Ni- me- **ku-** fanya *pro*_{2SG} u-we **m/*u-** kali.
 SM.1SG- PFV- **OM2SG-** make 2SG-be **CL1/*2SG-** fierce
 ‘I made you fierce.’
- c. Ni- me- **ji-** fanya *pro*_{REFL} kuwa **m/*ji-** kali.
 SM.1SG- PFV- **RFM-** make be.INF **CL1/*RFM-** fierce
 ‘I made myself fierce.’

This data thus strengthens the claim that participants and reflexives form a natural class and that its effects can be observed in several areas of syntax. It additionally supports Baker’s hypothesis that the SCOPA can be extended to anaphoric forms. More generally, the restrictions on person φ -agreement described in Baker (2008) seem to fall in line with other facts suggesting that 1st and 2nd person behave differently than 3rd persons.

However, such restrictions also differ in two significant ways from person licensing effects manifested as the PCC and described in chapter 3. First, they seem to distinguish between person features on the one side and number and gender features on the other, and not necessarily 1st/2nd person from 3rd person. Person licensing, on the other hand, makes a further divide within the person category between 1st and 2nd person on the one hand and 3rd person on the other. The two divides could eventually be reconciled by making the wide-spread theoretical assumption that only 1st and 2nd person bear person/participant features, while 3rd person consists in the absence of person/participant features. Under this view, only person/participant features, i.e. 1st and 2nd person items (clitics and agreement markers) would be subject to restrictions, person licensing and SCOPA effects alike. This assumption, however, is not trivial, and has been questioned by several scholars (e.g. Nevins 2007).

Second, assimilating the SCOPA to a person licensing effect faces another obstacle, namely the difference between outcomes in case of failure to satisfy the PLC on the one hand, and the SCOPA on the other: failure to meet the relevant conditions for person φ -agreement leads to default agreement, unlike failure to license person, which leads to ungrammaticality. This aspect is already discussed in 3.4.3 as a challenge for φ -approaches to person licensing. If the conditions for person agreement as described by the SCOPA are not met, this seems to result in either partial agreement (i.e. agreement in only number and gender) or in default agreement. This is evidenced in agreement with adjectives, whose agreement with a 1st/2nd person items results in number and/or gender agreement, but never ungrammaticality. This is also visible in oblique subject constructions, like in Gujarati (Baker 2008; Bhatt 2005) or long-distance agreement configurations (e.g. Basque), where agreement with a lower 1st/2nd person object does not result

in ungrammaticality, but rather in default agreement. The availability of such strategies strongly contrasts with what is found with PCC effects. In PCC effects, failure to license a 1st/2nd person direct object results in straight-out ungrammaticality. The insertion of partial agreement or default agreement does not suffice. What this discrepancy suggests is that what is at play in Person Licensing itself, i.e. the phenomenon underlying PCC effects which I argue to be a product of the Context-Linking Requirement, is not to be fully equated with the structural conditions of person agreement, although both might be linked. The descriptive generalization instead seems to be that failure to license person leads to ungrammaticality, while failure to meet the structural conditions on person agreement only leads to partial or default agreement, suggesting that the two empirical phenomena have to be distinguished, and in turn theoretical analyses thereof dissociated. An analysis of the categorial distribution of person and anaphoric agreement thus most likely does not fall under a theory of context-linking as [ID]-agreement.

6.3.4 Conclusion

The third section of this chapter has shown that, as expected if anaphoric agreement is analyzed as [ID]-agreement with an [ID]-deficient, i.e. context-sensitive, anaphor, anaphoric agreement patterns with 1st/2nd person agreement in double object constructions. Reflexive and 1st/2nd person direct objects cannot satisfy their context-linking requirement when an indirect object intervenes, thereby resulting in (weak) PCC-effects: 1st, 2nd and reflexive DOs are banned in the presence of a (3rd person) IO. After a thorough presentation of the data, I proposed the corresponding derivations, which are built on the very same mechanisms proposed for French in the previous chapter. The analysis furthermore straightforwardly accounts for the derivation of anaphoric agreement, which was not overtly present in French. Finally, I addressed another aspect in which 1st/2nd person and anaphoric agreement pattern together, which is their categorial distribution, which follows the predictions of Baker's SCOPA. While the data supports a number of empirical generalizations, I introduced some observations suggesting that despite initial appearances, the categorial distribution of person and anaphoric agreement might not fall under the same licensing conditions that lie behind PCC-effects. This concluded the discussion of Swahili, the study of which made two essential contributions, first by proposing a novel analysis of anaphoric agreement lending support to the role of [ID]-features in binding, and second by showing that reflexives and 1st/2nd person pattern alike beyond French, relying on similar syntactic requirements and configurations.

6.4 Summary and overview of the following chapters

This chapter moved away from the classical case of reflexive clitics in languages such as French to a class of languages with verbal reflexive markers. I showed that in Swahili, these verbal reflexive markers can be analyzed as a special type of object agreement that surfaces when its controller is a reflexive anaphor, i.e. anaphoric agreement. The first part of the chapter focused on reflexive markers in Swahili and introduced evidence that these reflexive markers are inflectional morphology and precisely agreement morphology. Yet, I showed that the features indexed by this agreement morpheme cannot be defined as φ -features only. Instead, I argued that what anaphoric agreement encodes is agreement for [ID]-features, and in particular, that it obtains when binding between a subject antecedent and an anaphor is mediated by a reflexive voice head which ends up standing in an Agree relation with two matching interpretable [ID]-features. Anaphoric agreement thus offers morphological evidence for the reality of [ID]-features in binding. In the last part of this chapter, I focussed on an essential prediction made by the analysis of anaphoric agreement as [ID]-features on a reflexive voice head: languages with anaphoric agreement should be the subject to PCC effects with direct object reflexives. Based on novel data from Swahili, I show that this prediction is borne out. Swahili 1st/2nd person and reflexives indexed by anaphoric agreement show PCC effects in double object constructions, which can be derived by the model proposed in this thesis. This shows that the account developed for person licensing and binding can also successfully be applied beyond French, making the correct predictions and accounting for the additional phenomenon of anaphoric agreement.

In the next and last part of this thesis, I turn towards some empirical predictions and extensions of the proposal laid out so far. Chapters 7 and 8 continue to explore the phenomenon of anaphoric agreement, refining its definition and extending its empirical scope. First, chapter 7 surveys four languages that potentially have verbal anaphoric agreement (Southern Tiwa, Warlpiri, Classical Nahuatl and Nez Perce). This cross-linguistic investigation of anaphoric agreement thus provides a more precise picture of this phenomenon, its defining characteristics and diagnostic criteria. Chapter 8 then proposes to extend the analysis of anaphoric agreement to other domains, namely the cross-clausal and the nominal domain by including phenomena known as switch reference or reflexive/4th person possessor agreement under the class of anaphoric agreement. Together, these two chapters provide a solid empirical basis for the analysis proposed in chapter 6, strengthening the power of an [ID]-based analysis while providing novel empirical and theoretical generalizations regarding reference-tracking morphemes across languages. Finally, the last chapter will leave the issue of anaphoric agreement and return to the Anaphor-Agreement Effect, claimed to be one of the strongest empirical arguments in favor of φ -features in binding. I will show that not only is the empirical scope of this phenomenon more limited than originally thought, but also that a portion of its alleged evasion strategies can actually

be accounted for in terms of [ID]-licensing. Overall, the third and last part of this thesis provides cross-linguistic and diverse applications of the theory of reference and context developed in the first two parts, and thus demonstrates that referential [ID]-features are a powerful syntactic tool.

Part III

Extensions and consequences

Chapter 7

Verbal anaphoric agreement cross-linguistically

Anaphoric agreement is not the prerogative of Swahili, and can be found in typologically diverse languages. In this chapter, I will address four languages that have been independently described and discussed in the literature: Southern Tiwa, a Kiowa-Tanoan language spoken in New Mexico and Texas, USA (Baker 2008; Harbour 2009; Rosen 1990); Warlpiri, a Pama-Nyungan language spoken in Australia (Northern Territory) (Hale 1973, 1983; Legate 2002b); Classical Nahuatl, a now extinct Uto-Aztecan language that was spoken in Mexico (Andrews 1975; Launey 1979, 2011; Stiebels 1999); and Nez Perce, a Sahaptian language spoken in Idaho, USA (Deal 2010; Woolford 1999). These languages have in common that they have been reported to have dedicated agreement forms for reflexive objects. This chapter brings these so-far isolated cases together and see whether they can be unified under the umbrella of anaphoric agreement. Furthermore, two of these languages, Southern Tiwa and Warlpiri, have been independently reported to have PCC effects in ditransitives. We will see that they confirm the pattern found in Swahili, where anaphoric agreement behaves like 1st and 2nd person agreement for the PCC. Classical Nahuatl will be demonstrated to plausibly have anaphoric agreement, but no PCC effects with either 1st/2nd person or reflexives. Finally, following Deal (2010), I will argue that Nez Perce verbal reflexives cannot be analyzed as anaphoric agreement, despite initial appearances. The contribution of this chapter is thus first and foremost an empirical one: it provides, from a descriptive perspective, an in-depth cross-linguistic picture of the phenomenon of anaphoric agreement and of PCC effects with reflexives. It brings existing data into a new perspective, highlighting them as part of a novel, unified outlook on restrictions on 1st/2nd person on the one hand and reflexives on the other. By doing so, this chapter also shows the cross-linguistic extent of the generalizations and the analysis proposed in previous chapters, and refines the definition and diagnostic criteria for anaphoric agreement.

7.1 Southern Tiwa

I will start by investigating the case of Southern Tiwa (Kiowa-Tanoan), for which both anaphoric agreement and person effects are relatively well-documented. Southern Tiwa has portmanteau agreement markers with a dedicated paradigm for agreement with reflexive arguments, which can be characterized as anaphoric agreement. Furthermore, restrictions on direct objects in ditransitives have been reported with with 1st and 2nd person but also with reflexive direct objects (Baker 2008; Harbour 2009; Rosen 1990), making Southern Tiwa directly parallel to Swahili and French. Southern Tiwa thus constitutes a further example of anaphoric agreement, which meets the predictions of the analysis proposed above. I will first briefly describe the agreement system of this language, before describing its PCC patterns with reflexives and 1st/2nd person.

7.1.1 Portmanteau agreement and reflexives

Southern Tiwa has prefixal portmanteau agreement morphemes which can index the person and number of up to three arguments of the verb. In intransitive verbs, the agreement marker encodes agreement with the subject, as in (1) with a 1st person singular subject. In transitives, both the subject and the object are indexed by the portmanteau morpheme, as in (2). In ditransitives, all three arguments are encoded on the verb, and glossed in the order SBJ:IO:DO, as in (3). Finally, Southern Tiwa has unaccusative verbs that take an additional dative argument, i.e. verbs with two internal arguments and no external argument. These so-called intransitive with dative verbs (as they are analyzed as unaccusatives with an extra dative) are illustrated in (4), where only the arguments underlyingly corresponding to the IO and DO are indexed by the agreement morpheme. In this example, the 1st person dative, corresponding to a directional argument, is dropped but indexed in the portmanteau morpheme.

(1) *Intransitive*

Te- mĩ- ban (eskwela-’ay).
1S- go- PST school-to

‘I went (to school).’

(2) *Transitive*

Bi- musa- mū- ban.
1S:3I- cat- see- PST

‘I saw the cats.’

(3) *Ditransitive*

’Uide **tam-** musa- wia- ban.
child 1S:3S:3I- cat- give- PST

‘I gave the cats to the child.’

(4) *Intransitive with dative*

In- musa- wan- ban.
Ø:1S:3S- cat- come- PST

‘The cat came to me.’

(Rosen 1990: 670-73)

The noun class system of Southern Tiwa deserves further attention. The language counts three noun classes, designated as SI, SP and IP (Harbour 2009). The labels for these noun classes come from the type of agreement triggered by members of the class: S (singular), P (inanimate plural) or I (inverse).¹ For instance, the noun *kuchin* ‘pig’ belongs to the noun class SI: it triggers the S form of agreement in the singular and the I form of agreement in the plural. SI may be characterized as the class of animate nouns.

- (5) a. **Ka**-kuchi-tã-ban
1S:2S:**3S**-pig-find-PST
‘I found your pig.’
b. **Kam**-kuchi-tã-ban
1S:2S:**3I**-pig-find-PST
‘I found your pigs.’ (Allen, Gardiner, and Frantz 1984: 307 in Harbour 2009)

The noun *kahun* ‘box’ belongs to the IP noun class: it triggers the I form in the singular and the P form in the plural.

- (6) a. **Kam**-kahun-tã-ban
1S:2S:**3I**-box-find-PST
‘I found your box.’
b. **Kow**-kahun-tã-ban
1S:2S:**3P**-box-find-PST
‘I found your boxes.’ (Allen et al. 1984: 307 in Harbour 2009)

Finally, the noun *shut* ‘shirt’ belongs to the noun class SP: it triggers the S form of agreement in the singular and the P form in the plural.

- (7) a. **Ka**-shut-k’euwe-me
Ø:2S:**3S**-shirt-old-PRS
‘Your shirt is old.’
b. **Kow**-shut-k’euwe-me
Ø:2S:**3P**-shirt-old-PRS
‘Your shirts are old.’ (Allen et al. 1984: 307 in Harbour 2009)

These noun classes are summarized in table 7.1.

This number notation is paralleled for 1st and 2nd person, whose plurals consistently trigger the inverse (I) agreement (like animate nouns from class SI). 1st/2nd person plural are thus notated 1I or 2I. Finally, Southern Tiwa has a dual number (D), which only appears for nouns of the SI class and with 1st and 2nd person. Southern Tiwa thus has a very rich agreement system. The full agreement paradigm is given in table 7.2 below. The

¹As explained by Harbour (2009): “The inverse is a number suffix that attaches to some nouns to form the singular, others to form the plural, and others to form both.” It is to be distinguished from the use of *inverse* in direct-inverse systems, which constitutes a type of person effect.

Table 7.1: Southern Tiwa noun class paradigm for 3rd person

Class	SI	SP	IP
SG	S	S	I
PL	I	P	P

first tier of the table provides the paradigm for intransitive (first column) and transitive predicates, the second tier for ditransitives and the third one for intransitives with datives.

As this table indicates, the language has a special form of agreement for reflexives in transitive predicates, noted REFL and reported in the last column. This is illustrated by the examples below, showing verbs with reflexive direct objects, indexed by the agreement morphology.

- (8) a. **Te-** mũ- ban.
 1S:REFL- see- PST
 ‘I saw myself.’ (Rosen 1990: 691)
- b. ’Uide **be-** khoy- ban.
 child 3S:REFL- bite- PST
 ‘The child bit himself.’ (Rosen 1990: 691)
- c. Khwian-nin **in-** khoy- ban.
 dog-PL 3D:REFL- bite- PST
 ‘The (two) dogs bit themselves.’ (Frantz 1995: 82)

Note that Southern Tiwa does not seem to have overt pronominal anaphors, and reflexivity is only marked on the agreement morphology. The reflexive agreement morphemes occur in the same preverbal slot as non-reflexive prefixes. A close look at the agreement paradigm reported by Rosen (1990) reveals that although the reflexive agreement paradigm coincides in part with the intransitive paradigm (as is the case of the morphemes in (8a) and (8c)), it crucially also has many idiosyncratic forms, such as illustrated in (8b). In this example, the 3S:REFL agreement morpheme *be-* does not look like any other transitive agreement morpheme. It is not possible to morphologically decompose these portmanteau agreement morphemes in order to establish if reflexive agreement is φ -covariant, since portmanteau morphemes fuse together the features of different agreement controllers, in this case those of the subject and the object. However, the following observations can be made. First, the form of reflexive agreement is not coopted from another paradigm (as is the case in the neighbouring language Kiowa, cf Adger and Harbour 2007), which could be evidence for either regular φ -agreement with a covert reflexive object, or for default agreement. Second, the form of anaphoric agreement is also not the form assumed in the absence of an object, ruling out the possibility that anaphoric agreement would simply be a form of intransitive marking. Southern Tiwa can thus reasonably be

Table 7.2: Southern Tiwa agreement prefixes (adapted from Harbour 2009 and Rosen 1990)

	Ø	3S	3P	3I	REFL
1S:	te	ti	te	bi	te
1D:	in	in	kin	imim	kin
1I:	i	i	kiw	ibi	kibe
2S:	a	a	ku	i	a
2D:	men	men	men	mimim	men
2I:	ma	ma	mow	bibi	bebe
3S:	Ø	Ø	u	i	be
3D:	in	in	in	imim	in
3I:	i	i	iw	ibi	ibe
3P:	u	—	—	—	—
1:2S:	i	ka	kow	kam	ka*
1:2D:	men	mim	miw	mim	mim?*
1:2I:	ma	mam	mow	mam	mam?*
1S:3S:	—	ta	tow	tam	ta*
1S:3D/I:	—	mim	miw	mim	mim?*
1D/I:3:	—	mim	miw	mim	mim?*
2S:1S	bey	ben	bow	bem	ben?*
2D:1S:	bey	men	mow	mem	men?*
2I:1S:	bey	mim	mow	mim	mim?*
2:1D/I:	?/ku	mim	mow	mim	mim?*
2S:3S:	—	a	o	am	a*
2S:3D/I:	—	mim	miw	mim	mim?*
2D/I:3:	—	mim	miw	mim	mim?*
Ø:1S:	—	in	iw	im	
Ø:1D:	—	ki(m)	kiw	kim	
Ø:1I:	—	ki	kiw	kim	
Ø:2S:	—	ka	kow	kam	
Ø:2D:	—	mam	mow	mam	
Ø:2I:	—	bim	bow	bim	
Ø:3S:	—	a	ow	am	
Ø:3D:	—	im	iw	im	
Ø:3D:	—	im	iw	im(im)	

* plus obligatory incorporation of *be* ‘self’

thought to have a type of anaphoric agreement, i.e. a dedicated paradigm for agreement with reflexive anaphors, only different from Swahili in that it is encoded in portmanteau morphemes along with subject agreement. The analysis proposed for Swahili anaphoric agreement could thus be extended to Southern Tiwa.

Finally, reflexive or anaphoric agreement in Southern Tiwa can be observed in another context, namely inherently reflexive verbs, i.e. verbs with reflexive morphology but which are understood as semantically non-reflexive. This is the case of verbs such as *wini* ‘stop’/‘stand’, *g’oa* ‘lay down’ or *d’awiani* ‘listen’.

- (9) a. Seuan-ide **be-** wini- ban.
man-BAS 3S:REFL- stand- PST
‘The man stood/stopped.’ (Rosen 1990:691)
- b. Seuan-ide **be-** g’oa- ban.
man-BAS 3S:REFL- lay- PST
‘The man lay down.’ (Rosen 1990:691)
- c. Khwian-nin **in-** t’awiani- ban.
dog-PL 3D:REFL- listen- PST
‘The (two) dogs listened.’ (Frantz 1995:82)

The anaphoric agreement paradigm can be observed in these examples, despite the absence of an obvious reflexive object. Note that it is not possible to rule out the presence of a reflexive object in the syntax (with an underlying structure of the type *The man lay himself down* similar to French *L’homme s’allonge*). Nonetheless, even if the absence of a reflexive was demonstrated, this state of affairs would not be unexpected, as in many languages (including French), reflexive morphology surfaces with other, seemingly intransitive, voices (see discussion in 5.3.3).

This subsection has thus shown that the rich agreement paradigm of Southern Tiwa includes a dedicated anaphoric agreement paradigm, lending support to the existence of anaphoric agreement beyond Swahili.

7.1.2 The PCC in Southern Tiwa

Further supporting the conclusion that Southern Tiwa has anaphoric agreement, reflexive direct objects indexed by the reflexive agreement paradigm are subject to PCC effects in the same way as agreeing 1st/2nd person direct objects. Indeed, Rosen (1990), Baker (2008) and Harbour (2009) report that the language exhibits PCC effects with 1st/2nd person direct objects.² Recall that in ditransitives, the agreement portmanteau indexes the features of the subject and both the IO and the DO, as shown again by (10).

²It also has a type of direct-inverse alternation in subject-object interactions, which I leave aside here. See Rosen (1990) and Harbour (2009) for details.

- (10) a. 'Uide **tam-** musa- wia- ban.
 child 1S:3S:3I- cat- give- PST
 'I gave the cats to the child.' IO 3 > DO 3 (Rosen 1990:670)
- b. **Ka-** shut- wia- ban.
 1S:2S:3S- shirt- give- PST
 'I gave you the shirt.' IO 2 > DO 3 (Allen & Frantz 1978:15)

Both examples in (10) have 3rd person DOs. In contrast, it is impossible to replace them by 1st/2nd person DOs. Indeed, agreement morphemes disallow the combination *SBJ > IO > 1st/2nd DO. In other words, when there is an indirect object, the direct object can only be 3rd person. This restriction takes the form of a gap in the agreement paradigm: Allen and Frantz (1986) and Rosen (1990) note the systematic absence of agreement forms indexing SBJ:IO:1/2 (also accordingly absent from the paradigm in 7.2). This is illustrated in the examples below. As opposed to (11a), (11b) has a non 3rd person DO, giving rise to the impossibility to express this argument combination as an agreement morpheme.³

- (11) a. Tow- wia- ban.
 1S:3S:3P- give- PST
 'I gave them to him/her.' IO 3 > DO 3
- b. *...- wia- ban.
 1S:3S:2S- give- PST
 Int: 'I gave you to him/her.' *IO 3 > DO 2 (Rosen 1990:677)

This restriction on 1st and 2nd person direct objects in ditransitives can be analyzed as a PCC-effect, as per the conclusions of Adger and Harbour (2007) about the neighbouring language Kiowa.

Similar effects in the interaction between IOs and DOs can be observed in certain types of intransitives involving a directional argument (so-called intransitive with dative), i.e. verbs with no external argument but with two internal arguments which trigger agreement on the verb, as exemplified again below.

- (12) a. **In-** musa- wan- ban.
 Ø:1S:3S- cat- come- PST
 'The cat came to me.' IO 1 > DO 3 (Rosen 1990:673)
- b. **Ka-** seuan- wan- ban (ĩ).
 Ø:2S:3S- man- come- PST 2S
 'The man came to you.' IO 2 > DO 3 (Allen & Frantz 1986:389)
- c. **Am** -seuan- wan- ban hliawrade.
 Ø:3S:3I- man- come- PST woman
 'The men came to the woman.' IO 3 > DO 3 (Allen & Frantz 1986:390)

³Rosen (1990:678) states that the ban on sentences like (11b) cannot be circumvented, even by resorting to a passive construction like is possible with person effects involving the subject.

Allen and Frantz (1986) and Rosen (1990) show that when the absolutive argument, i.e. the direct object, is 1st/2nd person, the resulting form is ungrammatical. Again, the verbal paradigm does not supply forms allowing the expression of these meanings: there are no forms indexing Ø:IO:1/2 combinations.

- (13) a. *...- wan- ban.
 Ø:1S:2S- come- PST
 Int: 'You came to me.' *IO 1 > DO 2 (Rosen 1990:679)
- b. *...- hliaw- ban.
 Ø:3S:1S- go.down- PST
 Int: 'I went down to him.' *IO 3 > DO 1 (based on Allen and Frantz 1986:400)

The ungrammaticality of these constructions can be circumvented if only one argument, i.e. the absolutive/DO agrees with the verb (using the intransitive agreement paradigm) while the dative/IO is expressed using the postposition *'ay* 'to'. This is reminiscent of the PCC-repair strategies found in French and Swahili, where a prepositional dative construction is used instead of a double object one, thus circumventing dative intervention by using a different structure.

- (14) a. A- wan- ban **na-'ay**.
 2S:Ø- come- PST 1S-to
 'You came to me.' (Rosen 1990:679)
- b. Te- hliaw- ban **'awã-'ay**.
 1S:Ø- go.down- PST 3S-to
 'I went down to him.' (based on Allen and Frantz 1986:400)

The description of the facts given by Rosen (1990:677-679) suggests that 1st/2nd person DOs are ungrammatical in combination with agreeing IOs of *any* person, i.e. that Southern Tiwa obeys the strong PCC. While there is no available data for ditransitives illustrating the fact that both 3rd and 1st/2nd person IOs alike lead to ungrammaticality of 1st/2nd DOs, the sentence in (13a) shows that it seems to be the case at least for intransitive-with-dative constructions. Southern Tiwa thus can be reported as having the strong version of the PCC.

These restrictions on direct objects when combined with indirect objects carry over to reflexive direct objects. Rosen (1990) reports that reflexive or anaphoric agreement may not be used in ditransitives if a benefactive (=IO) is present. In fact, the anaphoric agreement paradigm appears to lack a morpheme encoding a reflexive direct object in the presence of an indirect object or dative argument. This is illustrated by the contrast between (15a) and (15b) below. (15a) shows a transitive verb inflected with reflexive agreement. This verb belongs to the class of so-called inherent reflexives described before; however, as argued, the presence of a (covert) agreeing reflexive cannot be excluded here,

although the English translation would not require any (this is indicated by bracketing the reflexive anaphor in the English translation). In contrast, (15b) shows the same verb to which a dative benefactive has been added: the use of the reflexive agreement paradigm is no longer possible.

- (15) a. \boxed{A} - wini- ban.
 2S:REFL- stand- PST
 ‘You stood/stopped (yourself).’ DO REFL
- b. $*\boxed{\dots}$ - wini- ban seuanide.
 2S:3S:REFL- stand- PST man.
 Int: ‘You stopped (yourself) for the man.’ *IO 3 > DO REFL

This example clearly shows that a reflexive direct object is illicit with a dative (benefactive) argument. This parallels what has been observed with 1st/2nd person direct objects in ditransitives and qualified as a PCC-effect.

In order to express such combinations of arguments, Southern Tiwa has recourse to a repair strategy, the so-called ‘tricky’ reflexive construction. This alternative construction involves an invariant affix *be*, preceded by an agreement prefix from the non-reflexive ditransitive paradigm. There, DO agreement syncretizes with a more generic form of 3rd singular direct object (3S) agreement, which Harbour (2009) describes as ‘resorting to more generic agreement means’.

- (16) \boxed{A} - be- wini- ban seuanide.
 2S:3S:3S- self- stand- PST man.
 ‘You stopped for the man.’ (Rosen 1990: 692)

The existing literature offers some insights on the inner workings of this repair strategy. Rosen (1990) shows that *be* is an incorporated object reflexive, here glossed as ‘self’, which must be a 3rd person S noun. This incorporated reflexive accordingly triggers 3S agreement on the verb, resulting in the construction observed above.⁴ Incorporation of the reflexive thus allows to circumvent the PCC effects. The question arises of why that might be; after all, according to the analysis of PCC effects with reflexives proposed so far, a direct object reflexive does need to be licensed/bound/linked by agreeing with a v_{REFL} and a subject antecedent. Why should this requirement be obviated with an overt incorporated reflexive? Following Harris (1981), Rosen (1990) terms this strategy *Object Camouflage*, and assimilates it to similar constraints in Georgian and Basque, where the reflexive is apparently embedded or protected and triggers 3rd person singular (see also Woolford (1999) on Selayerese, chapter 9 below). If that is the case, embedding of the reflexive within a larger structural shell (e.g. a DP or PP) could allow it to be licensed for [ID] DP-internally, obviating any external intervention effects. Alternatively, the very

⁴A question that is left unanswered is whether 3S is the default form for agreement in Southern Tiwa.

mechanisms behind noun incorporation in Southern Tiwa could be responsible for the fact that the dative no longer intervene (as [Rosen 1990](#) also suggests). I leave this option to further research.

The same restrictions and repair strategy can be observed on another inherently reflexive verb, *d'awiani* 'listen'. Like was the case in (15b) and (15a), while the simple transitive version of the verb can make use of the reflexive paradigm, this becomes impossible once a dative goal is introduced syntactically.

- (17) a. **Be-** t'awiani- we.
 3S:REFL- listen- PRS
 'He is listening.'
 DO REFL ([Frantz 1995:81](#))
- b. ***[...]**- t'awiani- we.
 3S:1S:REFL- listen- PRS
 Int: 'He is listening to me.'
 *IO 1 > DO REFL

Interestingly, two different possible repair strategies seem to arise. The first one is none other than the tricky reflexive construction with incorporation of an overt reflexive.

- (18) *Repair 1: tricky reflexive*
- a. **[Ka]**- **be-** t'awiani- we.
 1S:2S:3S- **self-** listen- PRS
 'I am listening to you.'
 ([Frantz 1995:81](#))
- b. **[Ta]**- **be-** d'awiani- ban 'u-ide.
 1S:3S:3S- **self-** listen- PST child-BAS
 'I listened to the child.'
 ([Rosen 1990:692](#))

A second repair strategy consists in embedding the goal in a postposition, as in the following example. The benefactive is thus no longer an agreeing argument, and the verb agrees as a simple transitive (*be* here is from the transitive reflexive agreement paradigm, which happens to be syncretic with the incorporated reflexive *be* 'self' in the case of 3S:REFL agreement only). In fact, if one assumes the prepositional dative structure assumed for French, the benefactive is no longer an intervener, rendering the expression licit.

- (19) *Repair 2: benefactive in postposition*

'Uide **[be]**- d'awiani- hi **na-'ay**
 child 3S:REFL- listen- FUT 1S-to
 'The child will listen to me.'
 ([Rosen 1990:691](#))

In any case, this example further attests the impossibility of anaphoric agreement to surface to index the direct object of a verb that also has a dative (benefactive, goal, etc.)

argument. This data suggest that Southern Tiwa anaphoric agreement is subject to the PCC, and in fact [Rosen \(1990\)](#) and later [Baker \(2008\)](#) already explicitly links these facts to the person restriction on ditransitives. Just as the language bans SBJ > IO > 1st/2nd DO combinations, it also bans SBJ > IO > REFL DO combinations, as again showed by the impossibility of the examples below and the corresponding gaps in the paradigm.

- (20) a. *... wia- ban.
 1S:3S:2S- give- PST
 ‘I gave you to him/her.’ ([Rosen 1990:677](#))
- b. *... wini- ban seuanide.
 2S:3S:REFL- stand- PST man.
 Int: ‘You stopped (yourself) for the man.’ ([Rosen 1990:692](#))

Southern Tiwa thus does not only provide another case study for anaphoric agreement, but also fulfills the prediction that in languages that have anaphoric agreement, it should be subject to similar restrictions to 1st and 2nd person agreement. The patterns found in Southern Tiwa are summarized in the following table.

Table 7.3: PCC effects with reflexives (Southern Tiwa, strong PCC)

IO	DO	
3	3	✓
3	1/2/REFL	✗
1/2/REFL	3	✓
1/2/REFL	1/2/REFL	✗

As a final remark, Southern Tiwa can be compared with the neighbouring language Kiowa, showing that the latter lacks the characteristics that lead to the diagnosis of anaphoric agreement in the former. [Adger and Harbour \(2007\)](#) note that in Kiowa, reflexive agreement is fully identical to animate plural agreement (A-agreement, partially corresponding to Southern Tiwa I-agreement). [Harbour \(2009\)](#) notes that this leads to a systematic ambiguity, where the same sentence can either mean *I killed myself* or *I killed them*.

- (21) **De-** hóltoɔ.
 1S:3A- will.kill
 ‘I will kill them/myself.’

This form is invariable, regardless of the person or noun class of the antecedent, and there does not seem to be a lexical form for reflexive anaphors either. This type of agreement can thus hardly be qualified of anaphoric agreement. For [Adger and Harbour \(2007\)](#), the

ambiguity between the 3rd person animate plural and the reflexive agreement forms is significant of the fact that reflexives are underlied by an [EMPATHY] feature, rather than by a [PARTICIPANT] feature, thus correctly predicting that Kiowa direct object reflexives, like other 3rd person animates, are licit as direct objects of ditransitives, i.e. are not subject to the PCC, unlike 1st and 2nd person. Indeed, the following sentences in Kiowa are both equally acceptable.

- (22) a. **Nén-** hól.
 1s:3s:3A- killed.
 ‘I killed them/myself for him.’ IO 3 > DO 3/REFL (Adger & Harbour 2007: 25)
- b. **Gya-** hóltɔɔ.
 1s:3A:3s- will.kill
 ‘I will kill him for them/myself ’ IO 3/REFL > DO 3 (Harbour 2009)

Kiowa, unlike Southern Tiwa, can thus be concluded to not have true anaphoric agreement in the sense defined in this chapter, and accordingly not to have PCC effects with reflexives.

7.2 Warlpiri

The second language that I turn to is Warlpiri (Pama-Nyungan). As I will show here, based on data from Hale (1973, 1983) and Legate (2002b), Warlpiri also has verbal reflexives that lend themselves to an analysis as anaphoric agreement, and meet the prediction that they should be subject to PCC effects in ditransitives just as 1st/2nd person. While PCC effects with 1st/2nd person are well-known in Warlpiri (Hale 1973; Simpson 1991; Stegovec 2015; Woolford 2006), the observation that reflexives pattern similarly has to my knowledge never been made before, although the data was present in the literature. The description of the patterns of Warlpiri in this section therefore makes an important contribution to the description of PCC effects beyond 1st/2nd person in the language. Like in the previous section, I will start by introducing the agreement and reflexive system of the language, arguing for the presence of anaphoric agreement, before turning to PCC effects with reflexives and 1st/2nd person.

7.2.1 *Nyanu* as anaphoric agreement

Warlpiri is an ergative language with object agreement, which surfaces in a second position auxiliary or clitic cluster along with subject agreement and Tense-Aspect-Mood (TAM) morphemes. The verb agrees in person and number with its object, as shown in the following example.

- (23) Nyuntulu-rlu ka-npa-ju ngaju nya-nyi.
 you-ERG PRS-2SG.SBJ-**1SG.OBJ** me.ABS see-NPST
 ‘You see me.’ (Bittner & Hale 1993: 3)

While the pronominal *vs* agreement nature of these markers is a topic of controversy, similar to Bantu, I follow Baker (1996) and Legate (2002b) is assuming that they are genuine agreement morphemes, which can double an overt or silent object (though see Jelinek 1984 for arguments in favor of the pronominal clitic analysis).

When the object is interpreted as reflexive, the reflexive marker *-nyanu* occupies the position of object agreement in the clitic cluster, as the following examples illustrate.

- (24) Purlka-jarra-rlu ka-pala-**nyanu** nya-nyi
 old.man-DU-ERG PRS.IPFV-3DU.SBJ-**REFL** see-NPST
 ‘The two old men_i are looking at each other_i.’ (Simpson 1991: 163 in Legate 2002b: 57)

A coreferential interpretation of the subject and the object is impossible if the normal object marker is used.

- (25) Purlka-jarra ka-pala-**jana** nya-nyi
 old.man-DU PRS.IPFV-3DU.SBJ-**3DU.OBJ** see-NPST
 ‘They_i (two) are looking at the two old men_{*i/j}.’ (Legate 2002b: 130)

Like the Swahili RFM, *-nyanu* is invariant across antecedents of different person and number, as illustrated with a 1st person plural antecedent in (26) and a 2nd person singular one in (27).⁵

- (26) Kala-ka-rlipa-**nyanu** mata-rra-ma-ni?
 COMP.POT-PRS.IPFV-1PL.INCL.SBJ-**REFL** tired-thither-CAUS-NPST
 ‘But aren’t we_i liable to tire ourselves_i?’ (Simpson 1991: 163 in Legate 2002b: 57)
- (27) Nyangurla-rlu-npa-**nyanu** paka-rnu warlkurru-rlu-ju?
 when-ERG-2SG.SBJ-**REFL** strike-PST axe-ERG-TOP
 ‘When did you_i cut yourself_i with the axe?’ (Warlpiri Dictionary Project 1993 in Legate 2002b: 206)

⁵Hale (1973) notes two exceptions to this: with a 1st person singular antecedent, the form of the reflexive marker is identical to the 1st person singular object agreement clitic, *-ju*.

- (i) Ngajulu-rlu Ø-na-**ju** paju-ngu
 I-ERG 1SG.SBJ-**1SG.OBJ** cut-PST
 ‘I cut myself’ (adapted from Hale 1973: 337)

The second exception is with 2nd person singular in imperatives, arguably an exceptional context, where the 2nd person singular object agreement marker is likewise used.

As seen in these examples, there is no overt reflexive anaphor in the object position. In fact Warlpiri lacks phonologically overt reflexives, and the verbal reflexive may not be doubled by the 3rd person pronoun as an alternative.

- (28) a. Jakamarra-rlu ka-Ø-**nyanu** paka-rni
 Jakamarra-ERG PRS.IPFV-3SG.SBJ-**REFL** hit-NPST
 ‘Jakamarra_i is hitting himself_i.’
 b. *Jakamarra-rlu ka-Ø-**nyanu** nyanungu paka-rni
 Jakamarra-ERG PRS.IPFV-3SG.SBJ-**REFL** 3 hit-NPST
 Int: ‘Jakamarra_i is hitting himself_i.’ (Simpson 1991:170-171 in Legate 2002b:98)

Hale (1983) makes several observations that argue against an intransitive analysis of *nyanu*-reflexives, as reported in Legate (2002b). First of all, the subject of a reflexive sentence receives ergative case (the *-rlu* suffix), indicating a transitive sentence, as can be observed in the examples above. In addition, Warlpiri displays a switch reference system in non-finite clauses that is sensitive to grammatical function. Non-finite complementizers supplete according to the grammatical function of the controller of their PRO subject. The form *-karra* is used for a subject controller, as shown in (29a) and *-kurra* for an object controller, as in (29b).

- (29) a. Japanangka_i-rlu Ø Jakamarra_j nya-ngu [PRO_i
 Japanangka-ERG PFV.3SG.3SG Jakamarra.ABS see-PST
 yuka-nja-**karra**-rlu].
 enter-INF-**SBJ.C**-ERG
 ‘Japanangka_i saw Jakamarra_j when he_i entered/entering.’ (Bittner & Hale 1993:19)
 b. Purda-nya-nyi ka-rna_i-ngku_j [PRO_j wangka-nja-**kurra**]
 aural-perceive-NPST PRS.IPFV-1SG.SBJ-2SG.DO speak-INF-**OBJ.C**
 ‘I hear you speaking.’ (Hale 1983:20)

Legate (2002b) reports that the object switch reference marker *-kurra* may be used when PRO refers to the object of the finite clause marked by reflexive *-nyanu*, indicating the existence of a reflexive controller in object position.

- (30) Kurdu-ngku_i ka-Ø-**nyanu**_i nya-nyi [PRO_i karri-nja-**kurra**]
 child-ERG PRS.IPFV-3SG.SBJ-REFL see-PST stand-INF-**OBJ.C**
 ‘The child_i sees himself_i standing’ (Legate 2002b:130)

An overt body-part noun related to the object may also be present, indicating the existence of an object.

- (31) Wati-ngki-**nyanu** paka-rnu jurru.
 man-ERG-REFL hit-PST head

‘The man_i hit himself_i (on) the head’ (Hale, Laughren, & Simpson 1995)

Finally, reflexive sentences may contain a secondary predicate related to the object, again indicating the presence of an object:

- (32) Puyukuyuku-puru kula-lpa-rlipa-**nyanu** yapa
 fog-while NEG.COMP-PST.IPFV-1PL.INCL.SBJ-REFL person
 nya-ngkarla
 see-IRR
 ‘We_i (incl.) cannot see one another_i (as) person(s) (i.e., our shapes or figures)
 when it is foggy.’ (Hale 1983: 33)

These facts converge towards showing the presence of a null reflexive in the object position (Legate 2002b: 130). So the verbal reflexive marker *-nyanu* surfaces in the object agreement position when the object is interpreted as reflexive, and there is evidence suggesting that these sentences indeed contain a syntactic object and are not intransitive, accrediting the idea that *-nyanu* is a case of verbal anaphoric agreement which could be analyzed like proposed in chapter 6.⁶

7.2.2 The PCC in Warlpiri

Independently, research has shown that Warlpiri exhibits PCC effects in ditransitives (Hale 1973; Simpson 1991; Stegovec 2015; Woolford 2006). As mentioned earlier, Warlpiri has both subject and object agreement. In simple transitives, object agreement can encode agreement with the direct object (33a) or with the indirect object, as in (33b) where there is no absolutive.

- (33) a. Ngalipa-rlu ka-rlipa-**jana** wawirri-patu nya-nyi
 1PL.INCL-ERG PRS.IPFV-1PL.INCL.SBJ-**3PL.DO** kangaroo-PL see-NPST
 ‘We (incl.) see the several kangaroos.’ (Hale 1973: 328)
- b. Ngajulu-rlu ka-na-**rla** karli-ki warri-rni
 I-ERG PRS.IPFV-1SG.SBJ-**3.IO** boomerang-DAT seek-NPST
 ‘I am looking for a boomerang.’ (Hale 1973: 335)

⁶*Nyanu* is described by Bittner and Hale (1993) as encoding *proximate agreement*. Chapter 8 will explore the notion of proximate agreement in the DP domain, showing that it can be analyzed as anaphoric agreement. Additionally, the following example shows *nyanu* affixed to *ngati* ‘mother’, where it seems to be used as a possessive marker on an object, not so much as an object itself.

- (i) Kamina-rlu ka-rla mangarri purra ngati-**nyanu**-ku [nguna-nja-kurra-ku]
 girl-ERG PRS.IPFV-3.IO food cook.NPST mother-self-DAT lie-INF-OBJ.C-DAT
 ‘The girl is cooking food for her mother who is lying down.’ (Simpson 1991: 385)

This is evidence that *nyanu* might also function as a D-level anaphoric agreement, like we find in Inuit.

In ditransitives (true double object constructions), only one object may be marked on the auxiliary, like in Swahili.⁷ The IO being higher than the DO (Legate 2002b), the IO gets agreed with and marked on the verb, while the DO may remain unmarked. In (34a), the IO object agreement marker indexes the 2nd person singular *pro* IO (affected object); the DO is a 3rd person silent *pro*. In (34b), the IO (benefactive) which agrees is 1st person singular, while the DO is the 3rd person absolutive NP *karli* 'boomerang'.

- (34) a. Punta-rni kapi-rna-**ngku**
 take.away-NPST FUT-1SG.SBJ-2SG.OBJ
 'I will take him/her/it away from you.' (Hale 1983: 19)
- b. **Ngaju-ku** ka-Ø-**ju** karli jarnti-rni
 1SG-DAT PRS-3SG.SBJ-1SG.OBJ boomerang.ABS trim-NPST
 'He's making me a boomerang.' (Simpson 1991: 150)

Agreement with 3rd person singular objects is a null morpheme, so would not be expected to show up overtly in the examples in (34). However, DO agreement is also dropped in ditransitives when it would otherwise be overt, as with a 3rd person dual object, whose overt object agreement form would be *palangu*.

- (35) Ngajulu-rlu kapi-rna-**ngku** karli-jarra punta-rni **nyutu-ku**
 1SG-ERG FUT-1SG.SBJ-2SG.OBJ boomerang-DU take.away-NPST you-DAT
 'I will take the boomerangs away from you.' (Hale 1973: 333)

When the direct object is 1st or 2nd person, it is in contrast ungrammatical to drop DO agreement. In the following example, only the 1st person IO is agreed with and the 2nd person *pro* DO is not coindexed by agreement on the verb, resulting in ungrammaticality.

- (36) *Ngarrka-ngku kapi-Ø-**ji** punta-rni **ngaju-ku**.
 man-ERG FUT-3SG.SBJ-1SG.OBJ away-NPST 1SG-DAT
 Int: 'The man will take you away from me.' (Hale 1973: 334)

On the other hand, the auxiliary may not agree with both the IO and the DO, and the following agreement marker combinations, indexing both the IO and a 1st/2nd person DO, are ungrammatical.

- (37) a. *Ngarrka-ngku kapi-Ø-**ji-rla** punta-rni.
 man-ERG FUT-3SG.SBJ-1SG.OBJ-3.IO away-NPST
 Int: 'The man will take me away from him.' (Simpson 1991: 339)
- b. *Wati-ngki ka-Ø-**ju-ngku** punta-rni.
 man-ERG PRS-3SG.SBJ-1SG.OBJ-2SG.OBJ take.away-NPST
 Int: 'He is taking you/me away from me/you.' (Simpson 1991: 149)

⁷With the one exception of the 3rd person non-animate dative clitic *-rla*, (Hale 1973: 335).

The state of affairs is thus the following: 1st and 2nd person DOs must obligatory φ -Agree with the verb, but are unable to do so, given that the language has only one agreement slot which is targeted by the higher IO. I assume, as argued for Swahili, that obligatory φ -agreement of 1st/2nd person is nothing else than the reflex of obligatory agreement of indexicals with *v* for context-linking, agreement for [ID]-features. Since the conditions for Agree between *v* and the DO are the same for both φ -agreement and [ID]-agreement, the presence of covarying φ -agreement signals the successful establishment of Agree relations between *v* and the argument to be licensed, while its absence signals that failure of this relation. So like in Swahili, the IO intervenes for person licensing/context-linking of the DO via [ID]-agreement with *v*_{SA} in Warlpiri, yielding a PCC effect. As shown by (34) or (35), this restriction only affects 1st and 2nd person DOs, since 3rd person DOs need not be agreed with, since they are not [ID]-deficient. Furthermore, this restriction is also voided in configurations where the 1st/2nd person is the IO and the DO 3rd person, as in (34a), since no intervener arises between *v* and the IO. As summarized by Stegovec (2015), in the above data, in DOCs, DOs cannot be 1st or 2nd person. This includes cases where the IO is 3rd person, as in (37a), and cases where the IO is 1st or 2nd person, as in (37b). Warlpiri therefore exhibits the strong PCC, as it prohibits *IO > DO 1st/2nd combinations in DOCs.

In order to circumvent this restriction and express 1st/2nd person DOs of ditransitives, Warlpiri uses a by-now familiar strategy, whereby the IO is expressed as a prepositional argument which is not agreed with, similarly to French or Swahili. In the following example, the IO is expressed with an allative post-position, which Legate (2002b) equates with the English prepositional dative construction. The IO no longer intervenes for agreement and licensing of the 1st person DO.

- (38) Yu-ngu-ju-lu Jakamarra-kurra.
 give-PST-1SG.OBJ-3PL.SBJ Jakamarra-ALL
 ‘They gave me to Jakamarra.’ (Legate 2002b: 173)

Like with Swahili and Southern Tiwa, the prediction is that the anaphoric agreement morpheme *nyanu* should be subject to similar restrictions. Indeed, if *nyanu* is anaphoric agreement, its occurrence is conditioned by agreement of *v*_{REFL} with both the subject and the reflexive anaphor, an Agree relation that would be jeopardized if an intervener stands between the anaphor and *v*_{REFL}. Data from Legate (2002b) shows that this prediction is borne out in Warlpiri. In the presence of an IO indexed by agreement, a reflexive DO marked by *nyanu* is ungrammatical, yielding the following ungrammatical *IO > DO REFL combination.

- (39) *Yu-ngu-lu-nyanu-rla yurrkunyū-ku.
 give-PST-3PL.SBJ-REFL-3.IO police-DAT

Int: ‘They_i gave themselves_i to the police.’ (Legate 2002b: 173)

Furthermore, the presence of *nyanu* is obligatory to derive a grammatical reflexive sentence. The above example cannot be repaired by leaving *nyanu* out and using an overt pronoun as an anaphor (recall that Warlpiri does not have real lexical anaphors). Like with 1st/2nd person agreement, overt anaphoric agreement is obligatory, in virtue of the *nyanu* is assumed to be the morphological expression of successful agreement of the anaphor with v_{REFL} .

- (40) *Yu-ngu-lu-rla **nyanungu-rra** yurrkunya-ku.
 give-PST-3PL.SBJ-**3.IO** self police-DAT
 Int: ‘They gave themselves to the police.’ (Legate 2002b: 173)

In order to express a reflexive DO of a ditransitive, Warlpiri uses the allative ditransitive construction, like with 1st and 2nd person DOs. The IO is expressed as a postpositional allative which does not trigger agreement and no longer intervenes, allowing the expression of a reflexive DO indexed by anaphoric agreement.

- (41) Yu-ngu-lu-**nyanu** yurrkunya-kurra
 give-PST-3PL.SBJ-**REFL** police-ALL
 ‘They gave themselves up to the police.’ (Legate 2002b: 173)

Warlpiri therefore patterns with Swahili and Southern Tiwa. It has a dedicated anaphoric verbal agreement morpheme *nyanu* which is subject to PCC effects like 1st and 2nd person agreement morphemes in DOCs. Taken together, these three languages confirm the prediction that weak reflexives (often null in these languages) and anaphoric agreement are subject to similar licensing conditions as 1st/2nd person. The unique type of agreement they trigger, distinct from traditional φ -agreement, further supports the hypothesis that this licensing is mediated by a different type of features, i.e. [ID]-features, and with the intervention of a reflexive voice head. Next, I will introduce two languages, Classical Nahuatl and Nez Perce, which deviate from the patterns observed so far, and discuss how they fit in the proposed theory.

7.3 Classical Nahuatl: an interesting suspect

In this section, I will show that the extinct Uto-Aztecan language Classical Nahuatl has at first sight many characteristics that would suggest that it has anaphoric agreement and also PCC effects encompassing 1st/2nd person and reflexives. However, a closer investigation reveals that the initial clues for person restrictions cannot be fully substantiated by existing data, leading me to conclude to the absence of PCC effects in the language. Furthermore, the morphemes that could qualify for anaphoric agreement show some dif-

ferences with those in the languages studied above; nonetheless, they remain potential candidates for an analysis as anaphoric agreement. Classical Nahuatl therefore represents an interesting case which can be minimally contrasted with Swahili, Warlpiri or Southern Tiwa in order to narrow down the characteristics of anaphoric agreement across languages.

7.3.1 A candidate for anaphoric agreement

Classical Nahuatl has a rich agreement system: the verb agrees with the subject and up to three objects, which are all marked as prefixes of the verb. As can be seen in the examples below, these agreement markers inflect for person and number. Object prefixes, in bold, appear to the right of the subject prefix, which is italicized.⁸

- (42) a. *ni*-**ki**-te:moa (šo:čitli)
1SG.SBJ-3SG.OBJ-**seek** flower
'I seek (a flower).' (Stiebels 1999: 790)
- b. *ti*-**neč**-itta
2SG.SBJ-1SG.OBJ-**see**
'You see me.' (Launey 2011: 90)
- c. *ni*-**kin**-tlazōtla
1SG.SBJ-3PL.OBJ-**love**
'I love them.' (Launey 2011: 93)
- d. *ni*-**mits-im**-maca in huēhuēxōlō
1SG.SBJ-2SG.OBJ-PL.OBJ-**give** DET turkeys
'I'm giving you the tom turkeys.' (Launey 2011: 492)

Agreement is obligatory: it must be marked at all times, including in the presence of an overt argument or a dropped pronominal, as illustrated by the ungrammaticality of (43) in which the object agreement marker is omitted.

- (43) **ni*-te:moa (šo:čitli)
1SG.SBJ-**seek** flower
'I seek (a flower).' (Stiebels 1999: 790)

The paradigm of object agreement is reported below, including its notational variants. Classical Nahuatl has two series of object prefixes: the ones under consideration here are the so-called specific object prefixes, which are analyzed as true object agreement. I leave aside the case of non-specific affixes here, which only encode (non)-humanness of an object, attach to a different site and are optional.

When the object is interpreted as a reflexive anaphor, the object agreement prefix is replaced by a special reflexive affix. As illustrated in (44), the regular 1st person singular

⁸The orthography of Classical Nahuatl differs among authors. For lack of expertise in this matter, I have chosen not to uniformize it here. For the reader's convenience I indicate the different orthographies for agreement markers in table 7.4 and whenever is relevant for a better understanding.

Table 7.4: (Specific) object agreement affixes in Classical Nahuatl

1SG	<i>ne:č</i> (also <i>nech</i>)
2SG	<i>mits</i> (also <i>mitz</i>)
3SG	<i>ki</i> (also <i>qui</i> or <i>c</i>)
1PL	<i>te:č</i> (also <i>tech</i>)
2PL	<i>ame:č</i>
3PL	<i>kim</i> (also <i>quim</i> or <i>im</i>)

object agreement marker *neč* cannot be used with a 1st person reflexive object, but is replaced by a dedicated reflexive marker *no*. More examples of reflexive sentences are given in (45), and the reflexive marker paradigm is represented below, where one can observe that the verbal reflexive markers of Classical Nahuatl are partially φ -covariant.

- (44) a. ni-**no**-tta
 1SG.SBJ-1SG.REFL-see
 ‘I see myself.’ (Launey 2011:171)
- b. *ni-**neč**-itta
 1SG.SBJ-1SG.OBJ-see
 Int: ‘I see myself.’ (Launey 2011:91)
- (45) a. ni-**no**-tla:tia
 1SG.SBJ-1SG.REFL-see
 ‘I hide myself.’
- b. Ø-**mo**-tla:ti
 3PL.SBJ-3.REFL-see
 ‘They hide themselves.’ (Launey 2011:164)

Table 7.5: Classical Nahuatl reflexive agreement affixes

1SG	<i>no</i>
2SG	<i>mo</i>
3SG	<i>mo</i>
1PL	<i>to</i>
2PL	<i>mo</i>
3PL	<i>mo</i>

While Classical Nahuatl verbal reflexive markers could be good candidates for anaphoric agreement. First, they replace and cannot co-occur with a regular object prefix *which would coindex the same object*, suggesting that they are mutually exclusive and thus

share the same function. Furthermore, unlike anaphoric agreement markers in Swahili and Warlpiri (Southern Tiwa does not offer a clear-cut case due to the portmanteau nature of the morphemes), reflexive agreement in Classical Nahuatl is partially φ -covariant. However, nothing would in theory preclude φ -agreement to cohabit with [ID]-agreement on a single head and be realized as a single morpheme. In fact, precisely such as scenario will be discussed in chapter 8 with the case of Inuit anaphoric possessor agreement. φ -invariance is simply used as one-in-many diagnostics for the presence of anaphoric agreement, as it allows for the morphological isolation of [ID]-features. So the partial φ -covariance of Nahuatl's reflexive agreement affixes does not necessarily rule them out as anaphoric agreement. Not only is this not an argument against the presence of [ID]-agreement, as discussed above, but it in fact also suggests an agreement component for these markers (i.e. they can not be pure detransitivizing morphology since they coindex φ -features).

Finally, there is evidence for the role of a v_{REFL} in connection with the realization of verbal reflexive markers, namely the subject-orientation of reflexives in their presence. This can be illustrated with data from causatives, which shows that if the reflexive argument does not corefer with the subject, the specific reflexive marker cannot be used, and one must resort to the non-specific marker (which as stated previously, does not count as genuine agreement). This is shown in (46a), where the reflexive theme is coreferent with the causee. In contrast, in (46b) the (specific) reflexive agreement marker surfaces if the reflexive theme corefers with the subject.

- (46) a. ni- kin- **ne-** tla'so'tla- ltia
 1SG.SBJ- 3PL.OBJ- NS.REFL- love- CAUS
 'I_i cause them_j to love one another_j.' (Launey 1979: 186 in Stiebels 1999: 820)
- b. Ni- c- **no-** tti- tia
 1SG.SBJ- 3SG.OBJ- 1SG.REFL- see- CAUS
 'I_i show myself_i to him/her_j.' (or 'I make him/her see me'.) (Launey 2011: 531)

The (specific) reflexive agreement marker is thus subject-oriented, exactly like in Swahili, suggesting that it may be located on a reflexive voice head, again pointing towards an analysis as anaphoric agreement.

In order to gain more insight into Nahuatl's reflexive markers and determine whether this language displays PCC effects with reflexives, which would confirm an analysis as anaphoric agreement, the next section looks closely at ditransitives.

7.3.2 A close look at Classical Nahuatl's ditransitives

In ditransitives, Nahuatl generally allows only one argument to be marked by object agreement on the verb.⁹ The same affixes are used to mark agreement with DOs and IOs. As shown in (47), the 3rd person object marker *ki* (alternatively notated *c* or *qui*), denoting the DO, cannot be marked on the verb if the 2nd person IO is also marked. This is true regardless of the order in which the object agreement markers are arranged.

- (47) a. Ni-(***c**)-mits-maca.
 1SG.SBJ-(3SG.OBJ)-2SG.OBJ-give
 'I give it to you.'
- b. Ni-mits-(***qui**)-maca.
 1SG.SBJ-2SG.OBJ-(3SG.OBJ)-give
 'I give it to you.' (Launey 2011: 489)

This constraint is not specific to combinations involving a 1st or 2nd person IO, which would suggest a preference for 1st/2nd over 3rd person. This is shown by the ungrammaticality of the combination of two 3rd person singular object markers.

- (48) Ni-c-(***qui**)-maca.
 1SG.SBJ-3SG.OBJ-(3SG.OBJ)-give
 'I give it to him.' (Launey 2011: 489)

Launey (2011) notes that the agreeing object always is the beneficiary, i.e. the indirect object, which is analyzed by Stiebels (1999) as the result of the interplay of several hierarchies, but which would also straightforwardly correspond to the relative structural height of the IO.

There is however one exception to the rule that only one object must be marked, and that is in the case where one of the objects is 3rd person plural. In this case, the 3rd person plural object agreement marker *kim*, reduced to *im*, can cohabit with another object agreement marker.

- (49) Ni-mits-im-maca in huēhuèxōlō
 1SG.SBJ-2SG.OBJ-PL.OBJ-give DET turkeys
 'I'm giving you the tom turkeys.' (Launey 2011: 492)

The reduced form *im* is argued, for instance by Baker (2008), to be the number component of object agreement, while the 3rd person component *k*, also found in the 3rd person singular agreement marker, is left out.

So far the data above does not say anything about the fate of 1st/2nd person or reflexive DOs. Starting with 1st/2nd person, Baker (2008) classifies Nahuatl as a language with the

⁹Again, I am only considering specific object markers, as non-specific markers are not treated as proper agreement.

PCC, as Nahuatl allegedly does not have forms to express meanings such as *He gave you to me*, where the DO would be 1st/2nd person. In the following examples, the 1st or 2nd object prefixes always seem to be interpreted as IOs.

- (50) a. Xi-**ñech-im**-maca huēhuèxōlō.
 2SG.SBJ.IMP-1SG.OBJ-PL-give turkeys
 ‘Give me some turkeys.’ (Not: ‘Give me to some turkeys.’) 1 IO > 3 DO
 (Launey 1979: 174 in Baker 2008: 95)
- b. An-**tech-im**-maca.
 2PL.SBJ-1PL.OBJ-PL-give
 ‘You all give them to us.’ 1 IO > 3 DO
 (Launey 1979: 391 in Baker 2008: 99)
- c. Ni-**mits**-maca.
 1SG.SBJ-2SG.OBJ-give
 ‘I give you X.’ 2 IO > 3 DO
 (Launey 1979: 172 in Stiebels 1999: 793)

In particular, Baker (2008: 95) writes about the sentence in (50a): "This form can only be interpreted as having a first person singular goal and an animate plural theme. [...] This constitutes a fairly standard PCC effect". However, one piece of data from Andrews (1975) and reported in Stiebels (1999) suggests that when two object markers can cohabit, such as a 3rd person plural and a 2nd person singular, the interpretation of the sentence can be ambiguous. In the following example, the 2nd person singular can be interpreted as either the IO or the DO, as shown below.

- (51) o:-ni-**mits-im**-maka-k
 ANT-1SG.SBJ-2SG.OBJ-PL.OBJ-give
 ‘I gave them to you.’
 OR ‘I gave you to them.’ (Andrews 1975: 45)

Indeed, while Sullivan (1988: 35) states that "the two object prefixes are usually to be interpreted as indirect object first, direct object second", Stiebels (1999: 791) explicitly writes that "the object affixes may index any internal argument of the verb. Which argument they may be linked to is not determined by the position of the object affixes". So nothing seems to preclude the 2nd person object prefix to be interpreted as the DO. This example suggests that the PCC does not hold of 1st/2nd person items in Nahuatl.

One missing piece of data is what happens when one of the two objects is not 3rd person plural, i.e. must be left unexpressed. Examples in (47), or again example (52) below, have shown that a 3rd person DO can stay unagreed with.

- (52) Ni-**mits**-maca in šo:čitl.
 1SG.SBJ-2SG.OBJ-give DET flower

‘I give you the flower.’ (Launey 2011: 489)

The question arises whether a 1st or 2nd person direct object could stay unagreed with and still be interpreted as the DO. I have found no data that answers this question in any of the existing language descriptions cited above.

Moving on to reflexives, it seems that in ditransitives, reflexive verbal markers can be freely combined with any other object agreement markers.

- (53) a. ti-**c-to**-macâ šo:čitli
1PL.SBJ-3SG.OBJ-1PL.REFL-give flower
‘We give ourselves/each other a flower.’ IO REFL > DO 3SG
(Launey 2011: 493)
- b. ka:mpa ni-**k-no**-k^wi:-li:-s in no-tlak^wal
where 1SG.SBJ-3SG.OBJ-1SG.REFL-take-APPL-FUT the 1SG.POSS-food
‘Where will I procure food for myself?’ IO REFL > DO 3SG
(Launey 1979: 196 in Stiebels 1999: 802)
- c. ni-**mitz-no**-tla-’to’catia
1SG.SBJ-2SG.OBJ-1SG.REFL-NS.NHUM-regard
‘I regard you as ruler.’ IO REFL > DO 2SG
(Sullivan 1988: 35)

This first observation might suggest that reflexive markers are different from other object markers, with which they are not in complementary distribution. However this observation is nuanced by the fact that 3rd person plural object markers are also not in complementary distribution with other object markers (cf (49)). This characteristic of reflexive markers thus does not allow us to draw any definite conclusions as to their status as object agreement markers.

Regarding their behavior in PCC contexts, while in the examples above the reflexive markers coindex IOs, data suggest that they may also coindex DOs and still cohabit with an IO marker.

- (54) a. ni-**mits-no**-k^witlawia
1SG.SBJ-2SG.OBJ-1SG.REFL-take.care.of
‘I take care of you’ IO 2SG > DO REFL
(Launey 1979: 176 in Stiebels 1999: 821)
- b. ni-**no**-te-nexti-lia
1SG.SBJ-1SG.REFL-NS.HUM-reveal-APPL
‘I discover someone for myself.’ IO REFL > DO 3SG
OR ‘I reveal myself to someone.’ IO 3SG > DO REFL
(Andrews 1975: 108)
- c. Ni-**c-no**-tti-tia
1SG.SBJ-3SG.OBJ-1SG.REFL-see-CAUS
‘I show myself to him/her.’/‘I make him/her see me’. IO 3SG > DO REFL

(Launey 2011: 531)

Example (54a) seems to be an inherently reflexive verb, which can be analyzed as having an underlying reflexive DO and an IO who is the beneficiary of the caring action (on the model of French *s'occuper de quelqu'un* 'to concern oneself with someone'). Assuming that this analysis is correct, this example therefore shows an reflexive DO cohabiting with a 2nd person IO. Example (54b) shows an applicative verb with only a reflexive marker, and what is termed a non-specific marker that classifies the unmarked object as human. Andrews (1975: 108) writes about this sentence that it "may mean unexpectedly *I reveal myself to someone* [...] or expectedly *I discover someone for myself* [...]", explicitly stating the possibility of a reflexive DO in the presence of an IO introduced by an applicative.¹⁰ Finally, the last example in (54c) shows the causativized version of the verb 'to see', which takes two objects (a causee and a theme). Judging from this data, it is perfectly acceptable for the reflexive theme to appear together with a 3rd person causee, a construction that should be ruled out as per the PCC. All these examples suggest that Classical Nahuatl's reflexive DOs do not obey the PCC any more than 1st and 2nd person DOs do.

Although Classical Nahuatl does appear to have a morpheme that could count as anaphoric agreement, this section has shown that despite appearances, neither reflexive anaphors nor 1st/2nd person items seem to obey the PCC. These findings have several possible theoretical explanations. First, regarding the absence of PCC effects with 1st/2nd person, one might conclude that Nahuatl might simply not have a v-level representation of the speech act context (Alexiadou & Anagnostopoulou 2006; Kalin 2018). In other words, no licensing effects arise because there is simply no licenser there (see 4.3.3). However, an analysis of Nahuatl's verbal reflexives as anaphoric agreement as suggested by the facts presented in the previous section would predict that *v_{REFL}* is always a licenser for reflexive objects, since it obligatorily mediates binding by the subject. In a scenario where anaphoric agreement is the expression of matching [ID]-features of the anaphor and the subject on *v_{REFL}*, the expected outcome would therefore be (as per the decision tree in (41), section 4.3.3): no PCC effects with 1st/2nd person but PCC effects with reflexives. This is however not consistent with the data presented above. A promising avenue to account for the absence of PCC effects with both 1st/2nd person and reflexives is that in this language IOs and DOs are not hierarchically differentiated, i.e. the former does not intervene for operations involving the latter. In other words, Nahuatl would be a language with symmetric ditransitives. While this should be demonstrated by means of independent tests (see 6.1.2.4 for some of these diagnostics applied to Swahili), this possibility constitutes an explanation for the behavior of reflexives in Nahuatl ditransitives.

¹⁰This example contradicts the generalization reported by Stiebels (1999: fn.21) that in applicatives, the reflexive is confined to the applied argument, and that when introduced as the theme or direct object, one must resort to the non-specific reflexive marker in order to express the target meaning.

Finally, a close investigation of Classical Nahuatl's verbal reflexive markers in ditransitives also uncovered two facts about their distribution that might challenge an analysis as anaphoric agreement parallel to that of Swahili, Southern Tiwa or Warlpiri. First, verbal reflexive markers can be combined with other object markers (coindexing different objects), in a way most object markers may not be, suggesting they occupy a different slot. This observation, as we saw, is however weakened by the similar behavior of 3rd person plural object markers. Another potential argument against the analysis of reflexive markers as anaphoric agreement is their position with respect to other object prefixes. The order of prefixes seems to follow the following template, based on the observations of Stiebels (1999: 792) and Launey (2011: 165).

(55) *Order of prefixes in Nahuatl*

1st/2nd OM < other OM < directional < REFL < non-specific markers < verb stem

It thus seems that reflexive markers do not target the same spot as other (so-called specific) object markers. However, this does not necessarily preclude reflexive markers from being anaphoric agreement. First, one could imagine that the order of affixes is determined post-syntactically and is not based on the order of heads in syntax. This assumption would however need to hold for the other languages as well, significantly weakening the numerous morphological arguments regarding affix ordering put forth in this chapter. Alternatively, one could maintain that object markers and reflexive markers do target different heads, but that both are equipped with agreement probes, albeit for different features. For instance, one could assume that *v* and *v*_{REFL} are not bundled in Nahuatl. *v* bears a φ -probe, while *v*_{REFL} bears a φ -probe and an [ID]-probe. The result is that object agreement and anaphoric agreement are not in complementary distribution and can co-occur, with the latter also indexing the φ -features of the reflexive object next to its [ID]-features.

In conclusion, the verbal reflexive marker in Nahuatl cannot be ruled out as an instance of anaphoric agreement. Regardless of whether one treats it as such however, it does not seem to obey PCC anymore than 1st/2nd person object agreement markers do, potentially providing an interesting example of a language with anaphoric agreement and no PCC effects at all, which is in fact predicted as a possibility in our model. In contrast, the next and final language of this section, Nez Perce, will show positive evidence against an analysis of verbal reflexives as anaphoric agreement.

7.4 Nez Perce: a false friend

The last language surveyed in this chapter is Nez Perce (Sahaptian), which Woolford (1999) reports as having a dedicated anaphoric agreement form. Like Southern Tiwa,

Nez Perce has portmanteau subject and object agreement, prefixed to the verb stem, as illustrated in (56). The verbal agreement system only overtly marks 3rd person and plural number.

- (56) a. Háama-nm **pée**-’wi-ye wewúkiye-ne.
 man-ERG 3SBJ.3OBJ-shoot-PFV elk-OBJ
 ‘The man shot an elk.’ (Rude 1988: 30 in Woolford 1999: 267)
- b. Háama-nm **pée**-’wi-ye (’ip-né).
 man-ERG 3SBJ.3OBJ-shoot-PFV him-OBJ
 ‘The man shot him.’(not himself) (Rude 1985: 205 in Woolford 1999: 267)
- (57) ’Imée-m **hi-pe**-cewcew-núu-m-Ø-e *pro*_{1SG}.
 3PL-ERG 3SBJ-SBJ.PL-call-APPL-CISLOC-PFV-RPST
 ‘They called me.’ (Deal 2016: 6)

The normal object agreement paradigm as in (56) cannot be used when the object is a reflexive. Instead, a special form of agreement must be used, as illustrated in (58).

- (58) Háama **’ipnée**-’wi-ye (’ipinníx).
 man.NOM **3SG.REFL**-shoot-PFV 3SG.INTENS
 ‘The man shot himself.’ (Rude 1985: 205 in Woolford 1999: 267)

An overt anaphor *’ipinníx* in the object position is only optional. Interestingly, unlike Swahili or Warlpiri, but similar to Classical Nahuatl, the Nez Perce anaphoric marker seems to vary according to person and number, as shown by the paradigm in table 7.6.

Table 7.6: Nez Perce reflexive prefix series (Rude 1985: 40)

	SG	PL
1	’inée-	nemée-
2	’imée-	’imemée-
3	’ipnée-	’imemée-

At first sight, Nez Perce verbal reflexive morphology therefore looks a good candidate for an analysis as anaphoric agreement. However, Deal (2010: 115sq) argues, against Woolford (1999), that reflexive morphology in Nez Perce is derivational, rather than inflectional: it is a valence-reducing morpheme, and thus cannot be construed as anaphoric agreement. I will briefly present Deal’s arguments showing that Nez Perce verbal reflexives do not fall in the same category than those of Swahili, Warlpiri, Southern Tiwa or Classical Nahuatl.

First, Nez Perce is an ergative language, in which subjects of transitives are accordingly ergative, as in (56), while subjects of intransitives are nominative/absolute.

- (59) 'Ipí / Kátie hi-kúu-se-Ø.
 3SG.NOM Katie.NOM 3SBJ-go-IPFV-PRS
 'She/Katie is going.' (Deal 2016: 2)

In contrast to (56), the subject of the reflexive sentence in (58) is nominative, suggesting that reflexive constructions might not be transitive. Additionally, unlike object agreement for person and number, reflexive prefixes are found in nominalizations. This diagnostic is also used by Déchaine and Wiltschko (2012, 2017) as a characteristic feature of detransitivizing reflexive markers or by Sikuku (2012) to show that Lubukusu RFMs are not object agreement markers (see footnote 13, chapter 7).¹¹

- (60) a. 'inaa-tamapayk-t
 1SG.REFL-report.on-PART
 'testimony (of myself)'
 b. 'ipnée-ku-t'es
 3SG.REFL-get.water-PART
 'cup, mug'
 c. 'ipnée-wle-ke'yk-e'í
 3SG.REFL-run-go-NMLZ
 'car' (Deal 2010: 116)

Reflexive morphology can also be used to change the argument structure, i.e. valency of a verb, without giving it a reflexive meaning. Such an example concerns the verb *kuu* 'get water'. This verb is only intransitive (unergative). However, the reflexive morphology can combine with the bare verb to give the meaning 'drink', which is arguably transitive.

- (61) a. teqe-kúu-se.
 quickly-get.water-IPFV
 'I am going to get water briefly.'
 b. 'inée-kuu-se.
 1SG.REFL-ROOT-IPFV
 'I am drinking.' (Deal 2010: 116)

As argued by Deal (2010), if the reflexive prefix was a special form of agreement marking an anaphoric object, one would need to posit a transitive verb root *kuu* with which the reflexive combines and of which the anaphor is the object. Yet this transitive verb root is apparently not attested. Deal suggests that the non-compositional meaning can only be explained by assuming fusion of the derivational reflexive morpheme with the verb stem to a point where compositional analysis is no longer possible.

Finally, the central argument of Deal's paper is that Nez Perce has so-called extended reflexives constructions of the form (62a), where the possessor of the object is coreferen-

¹¹This diagnostic may not apply to all languages. In particular, Classical Nahuatl has the particularity to allow both object agreement morphology and reflexive morphology in nominalizations (Stiebels 1999).

tial with the subject (i.e. a reflexive possessor). Deal shows that the structure of these constructions is such that the object possessor, a silent anaphor, is externalized and participates in verbal agreement instead of the overall object nominal ('her cat'). Comparing (62a) with the non-possessive (62b), one can observe that in the former, the agreement morphology only indexes the features of the subject, contra those of the subject and object in the latter.

- (62) a. pit'íin **hi**-'yáax-na pícpic.
 girl 3SBJ-find-PFV cat
 'The girl_i found her_i cat.'
 b. pit'íin-im **páa**-'yax-na picpíc-ne.
 girl-ERG 3/3-find-PFV cat-OBJ
 'The girl found the cat.'
(Deal 2010: 83)

Deal argues that in extended reflexives, the possessor is a silent reflexive anaphor devoid of φ -features. Since it is the anaphor that is targeted by agreement, this results in agreement failure, indeed a type of Anaphor-Agreement Effect. Since it is the anaphor that is targeted by agreement in such cases, one would expect this special anaphoric agreement to show up on the verb in extended reflexive constructions – as (62a) shows, that is not the case. Deal's conclusion is thus that the reflexive marker found in regular reflexive constructions is not anaphoric agreement, but rather detransitivizing morphology that is derivational in nature. One question that remains is how the apparent φ -covariance of this derivational reflexive morpheme can be accounted for. A possible hypothesis, albeit purely speculative at this point, would be that the reflexive morphology originates in the pronominal paradigm, which marks such person and number distinction, and has thus be evolved into derivational morphology. Further research would be needed to provide evidence for the validity of this hypothesis.

Although initially appealing, the hypothesis that Nez Perce would be a further case of anaphoric agreement cannot be substantiated. As a final remark, although Nez Perce has person effects in the form of person-based split-ergativity (Deal 2016) and restrictions in complementizer agreement (Deal 2015), it is not known to show PCC effects for 1st/2nd person or reflexives.

7.5 Conclusion

This chapter has closely looked at agreement, reflexives and 1st/2nd person in four unrelated languages, namely Southern Tiwa, Warlpiri, Classical Nahuatl and Nez Perce, in order to show if and under which circumstances the phenomenon of anaphoric agreement observed in Swahili and its consequences in terms of PCC effects carried over in other languages. Two languages, Southern Tiwa and Warlpiri, have verbal reflexive markers

that can be analyzed as anaphoric agreement. These languages are independently known for showing PCC effects with 1st and 2nd person. I have shown that in accordance with the predictions made by the analysis of anaphoric agreement as [ID]-features on v_{REFL} in Swahili, anaphoric agreement in Southern Tiwa and Warlpiri also obeys the PCC, supporting the main claim of this thesis that reflexives and 1st/2nd person form a natural class for [ID]-licensing. I then turned to Classical Nahuatl, a language whose agreement and binding characteristics made an interesting suspect. I have shown that reflexive verbal markers in Nahuatl could be analyzed as anaphoric agreement. However, the language does not display any PCC effects, neither with 1st/2nd nor with reflexives. This conclusion is fully compatible with the predictions of the model (see figure (41) in chapter 4), and diversifies the cross-linguistic picture of anaphoric agreement. Finally, I examined the case of Nez Perce, claimed by Woolford (1999) to be another case of anaphoric agreement. Based on the observations of Deal (2010), I demonstrated that this is in fact not the case. Overall, this chapter has provided a variety of cases showing the extent and the limits of anaphoric agreement cross-linguistically. By doing so, it provided an array of possible diagnostics for anaphoric agreement and related licensing effects. In particular, the discussion in this chapter allows us to list a number of diagnostic criteria for anaphoric agreement, gathered in table 7.7. This list comes with an important caveat, namely that no single diagnostic criterion can by itself decide for or against the presence of anaphoric agreement, but rather a cluster of positive answers should be taken to point towards it. Some of the particular tests for each category might be language specific and should be completed by existing diagnostics from language-specific literature.

Table 7.7: Diagnostic criteria for anaphoric agreement

Are there signs that a reflexive voice is involved?	yes
-the reflexive is subject-oriented -the reflexive cannot be combined with other voices	
Is the verbal reflexive marker in a position corresponding to other object markers?	yes
-this position is distinct from the position corresponding to derivational morphology such as passive voice, causative voice, etc. -if there is only one slot for object agreement, the reflexive marker is in complementary distribution with other object markers	
Does the reflexive marker share the syntactic distribution of other object agreement markers?	yes
-it is restricted in DOCs, suggesting intervention for an Agree operation, i.e. it shows PCC effects -the reflexive marker is disallowed in nominalizations	
Does the verbal reflexive marker successfully pass the tests for agreementhood?	yes
-it lacks positional flexibility -it is obligatory -it can co-occur with an overt object in-situ -it cannot occur in passives	
Are there additional signs of transitivity?	yes
-the case of the arguments matches those of a transitive predicate -the (overt or covert) anaphoric object can control switch reference object morphology -there can be a secondary predicate or an overt-body part noun related to the object	
Is the paradigm of the reflexive marker different than the general object φ -agreement paradigm and can it be established not to be default agreement?	yes
-anaphoric agreement might be φ -covarying, but its distinguishing feature is that it is morphologically different from the regular φ -agreement paradigm	

Chapter 8

Anaphoric agreement across domains

The previous two chapters have shown that the case for [ID]-features in anaphoric binding relations is strengthened by the patterns observed in Swahili, Southern Tiwa and Warlpiri, where verbal functional heads, identified as v_{REFL} , encode coreference of two coarguments by means of a dedicated anaphoric agreement morpheme. Anaphoric agreement on v , I have argued, is to be analyzed as the morphological expression of [ID]-features on functional head mediating binding, and more precisely of multiple agreement and feature sharing with two coindexed arguments, a configuration that obtains if the lower argument is anaphoric.

In this chapter, I show that morphosyntactic encoding of coreference is not limited to local anaphors and to the verbal level and that the system that I proposed to derive anaphoric agreement on v can be applied to domains beyond the verbal domain, namely in the cross-clausal domain with C agreement and in the nominal domain with D agreement. Specifically, I argue that anaphoric agreement can be extended to two reference-tracking mechanisms known in the literature as respectively switch reference marking and reflexive or 4th person possessor agreement. This is an advantage of the proposed system: given the syntactic definition of anaphoric agreement, it predicts that it should theoretically be able to occur on other functional heads, if they mediate binding between an anaphor and its antecedent. This chapter shows that this prediction is fulfilled. Building on recent accounts of switch reference (Arregi & Hanink 2018, 2019; Baker & Souza 2019; Clem 2019), I start by discussing the extension of anaphoric agreement in the CP domain, i.e. the phenomenon of switch reference in section 8.1. I will then turn to anaphoric agreement in the DP domain, i.e. reflexive possessor agreement in section 8.2.

8.1 Anaphoric agreement on C: switch reference

8.1.1 Switch reference systems

Various languages have a morphosyntactic mechanism to encode argument coreference at the cross-clausal level, known as switch reference. According to [Jacobsen \(1967: 240\)](#), switch reference "consists simply in the fact that a switch in subject or agent [...] is obligatorily indicated in certain situations by a morpheme". Switch reference can be broadly defined as an inflectional category encoding whether or not the subject of a subordinate adjoined clause is identical with the subject of the main clause (although in some rare cases the cross-referenced arguments are not limited to subjects). Switch reference thus indicates referential identity of arguments and tracks reference between clauses. Such a system is for instance found in Amahuaca (Panoan, [Clem 2019](#)) and illustrated below.

(1) *Amahuaca*

- a. $[_{CP} \text{ jaa}=\text{x}_i \quad \text{vua}=\boxed{\text{kin}}=\text{mun} \text{ xano}=\text{n}_i \quad \text{xuki} \text{ jova}=\text{xo}=\text{nu}$
 3SG=NOM sing=SS.SIM=C woman=ERG corn cook=3.PST=DECL
 ‘While she_i sings, the woman_i cooks corn.’
- b. $[_{CP} \text{ joni}_i \text{ vua}=\boxed{\text{hain}}=\text{mun} \text{ xano}=\text{n}_j \quad \text{xuki} \text{ jova}=\text{xo}=\text{nu}$
 man sing=DS.SIM=C woman=ERG corn cook=3.PST=DECL
 ‘While the man_i sings, the woman_j cooks corn.’ ([Clem 2019: 36](#))

In Amahuaca, switch reference morphemes occur at the edge of the adjoined CP, immediately to the left of the complementizer *mun*. When the subject of the main clause and that of the subordinate adjunct CP have the same reference, as in (1a), the switch reference morpheme *kin* surfaces, indicating same subject (glossed SS). In contrast, in (1b), the main subject and the subordinate subject are disjoint in reference: the complementizer is inflected with the morpheme *hain*, indicating disjoint subjects (DS). Coreference or disjoint reference of subjects across clauses is thus encoded by morphemes at the edge of the clause.

Another example of switch reference is Washo (Isolate, Lake Tahoe; [Hanink and Bochnak 2017](#), [Arregi and Hanink 2018, 2019](#)).

(2) *Washo*

- a. $\text{da?mó?mo?}_i \text{ } [_{CP} \text{ k'ák'a?}_j \text{ dá: } \text{gé:gel-i } \boxed{-\text{š}} \text{ -ge } \text{yá:ma?}$
 woman heron there 3.sit-IND -DS -NMLZ 3.speak-DEP
 ‘The woman_i spoke to a heron_j (who was) sitting there.’
- b. $\text{Adele}_i \text{ } [_{CP} \text{ dalá?ak } \text{?}_i\text{-ígi-yi } \boxed{-\text{Ø}} \text{ -ge } \text{hámup'áy-e:s-i}$
 Adele mountain 3-see-IND -SS -NMLZ 3.forget-NEG-INDEP
 ‘Adele_i remembers that she_i saw the mountain.’ ([Arregi & Hanink 2018](#))

Similar to Amahuaca, the switch reference marker is different according to the identity or non-identity of the main clause and subordinate subjects. In case the subject of the main clause and that of the embedded clause are disjoint in reference, the complementizer assumes the form *-š*, as illustrated in (2a). When the subject of the main clause and that of the embedded have the same reference, the complementizer is null, as in (2b).

What can be observed from the above languages is that (non-)identity of arguments across clausal boundaries is morphologically encoded, not by the form of the arguments themselves (i.e. an anaphoric form) but on a separate functional head, located at the clause junction. In this respect, they fulfill a similar function as verbal reflexive markers of the type we observed in Swahili, Warlpiri or Southern Tiwa, although their scope spans over a larger domain, i.e. that of two clauses. As I will show next, this parallelism is supported by several properties of switch-reference markers cross-linguistically.

Let us start with some basic facts about the locus of SR and its distribution. SR is typically marked on a subset of embedded adjoined CPs. These may include temporal adjuncts, such as in the Amahuaca examples in (1a) and (1b), embedded clausal nominalizations, such as in the Washo examples above where the embedded CPs bear the nominalizing suffix *-ge*, or more generally control-like non-finite environments, of the type illustrated for Warlpiri below.¹

(3) *Warlpiri*

Japanangka-rlu_i Ø Jakamarra_i nya-ngu [PRO_i
Japanangka-ERG PFV.3SG.3SG Jakamarra.ABS see-PST
yuka-nja-karra-rlu].
enter-INF-SS-ERG

‘Japanangka_i saw Jakamarra_j PRO_i entering.’ (Bittner & Hale 1993: 19)

The locus of SR inflection is argued to be the embedded complementizer (Arregi & Hanink 2018, 2019; Clem 2019; Finer 1985; Watanabe 2000). In Amahuaca for instance, one can see from the above examples that the SR marker appears immediately left of the C head, and is thus affixed to the complementizer. In Washo or Warlpiri, the form of the complementizer itself suppletes according to the (non-)identity of arguments. SR is thus understood as the realization of embedded C.

While some previous accounts of SR have attempted to argue that it is conditioned by semantic or pragmatic factors, SR can in fact been shown to be a syntactic phenomenon in many languages. First, SR is subject to syntactic locality restrictions. To begin with, it is not observed in independent clauses. In the following example from Washo, there is no DS marker (*-š*-) despite the fact that the subjects of the two clauses are distinct.

¹Some cases of SR in coordination structures have been reported, but they are a matter of debate. See for instance Weisser (2012) for arguments that there is no SR in coordinated constructions.

(4) *Washo*

... udi Dresslerville ʔ-išge-gulayg-i lí:uɲil ... / t'éliwhu gí: Dresslerville
 then Dresslerville 3-move-PST-INDEP long.ago husband 3 Dresslerville
 dé-itdeʔ-iʔ k'-éʔ-i
 NMLZ2-country-ATTR 3-COP-INDEP

‘... then she_i moved to Dresslerville, a long time ago ... her husband, he_j lives in Dresslerville.’ (Arregi & Hanink 2018: 3)

More strikingly, in cases of multiple embeddings, SR markers only track the reference of the subject of the immediately c-commanding clause. Consider the following example from Seri (isolate/Hokan, Mexico) (Moser 1978: 116, discussed in Georgi 2012: 6).

(5) *Seri*

taaX iti t-ap ma / yaX kix an i-t-atni ma / ik-attaX
 there on DEP.PST-stand DS / belly ART in 3.OBJ-DEP.PST-hit DS / INF-go
 i-t-k^waa / ta ʔak iti t-ap ma /
 3.OBJ-DEP.PST-NEG.know / there ART in DEP.PST-stand DS /
 k^wʔa-mii-škam
 3.1PL.SBJ-PFV-arrive.PL

‘When it_i stood there, after he hit it_i in the belly, it_i could not move, it_i stood over in that place, we arrived to where it_i was.’

In this example, all *it*’s (corresponding to dropped pronouns in the Seri example) are coreferent (they refer to a horse). However, while the subjects of the first and the third clause are coreferent, they cannot be cross-referenced as such by an SS marker (a null morpheme in Seri) as they are not located in structurally immediately adjacent clauses. Instead, there is DS marking (*ma*) between the first and the second clause – whose subjects *it* and *he* (a man) are not coreferent – and between the second and the third clause, for the same reason. Structurally intervening non-coreferent subjects are thus taken into account by SR markers.

Furthermore, a strong cross-linguistic tendency of SR is that it only tracks coreference of clauses’ subjects, as opposed to identity of objects between them or of a subject and an object. Subject-orientation is taken as a defining characteristic of canonical SR systems, in cross-linguistic surveys (e.g. McKenzie 2015) as well as in review articles (e.g. Georgi 2012) (although there exist some exceptions, see 8.1.3). More particularly, SR is sensitive to the notion of syntactic subject, and tracks the reference of the structurally highest argument that passes subjecthood tests, regardless of its information structural status (e.g. topichood), agentivity or case. In this respect, it parallels v-level anaphoric agreement, a hallmark of which is subject-orientation. The importance of the structural

height of the subject over other factors can be illustrated by Inuktitut (Eskimo-Aleut), an ergative language that morphologically distinguishes A-arguments (external arguments of transitive verbs, often understood as agents) and S-arguments (internal arguments of intransitive verbs, often understood as themes) by means of case. In the following examples from Inuktitut, both A-arguments in the ergative and S-arguments in the absolutive can be cross-referenced by SR markers.

(6) *Inuktitut* (Pittman 2005: 4)

- a. [Alana-up_i uɟagak_j atja-**tlu**-gu] ani-vuk_{i/*j/*k}
 Alana-ERG rock.ABS carry-SS-3SG go.out-INTR.IND.3SG
 ‘While Alana_i was carrying the rock_j, she_{i/*j/*k} went out.’ A to S
- b. [taku-**tlu**-gu] tusa-laut-tagā
 see-SS-3SG hear-RPST.INTR.PTCP.1SG/3SG
 ‘While I_i saw it, I_i heard it.’ (Labrador) A to A
- c. [uumasuq pikin-naviir-**lu**-gu] qilirsur-niqar-pu-q
 animal.ABS kick.about-prevent-SS-3SG tie.up-PASS-INTR.IND-3SG
 ‘The animal_i was tied up preventing it_i from kicking about.’ S to S
 Lit: ‘While the animal_i was kicking about (prevented from), it_i was tied up.’
 (West Greenlandic)

In (6a), the SS marker *tlu* indicates coreference between the A-argument of the subordinate clause and the S-argument of the main clause. In this example, it can also be noted that the object *uɟagak* ‘the rock’ is ignored by the SR marker, i.e. it does not intervene. In (6b), the SS marker cross-references two A-arguments. Finally in (6c), it cross-references the S-argument of the subordinate clause *uumasuq* ‘animal’ and the derived subject of a passive. The case of the subjects – ergative in the case of A-arguments and absolutive for S-arguments – is not relevant, nor is the thematic role of these arguments. Only their subjecthood is a discriminating criterion for SR markers.

The subject-orientation of SR markers in telling in two respects. First, it constitutes a common property with verbal reflexive markers and *v_{REFL}* reflexives in general (cf. French and Swahili), a defining characteristic of which is to be subject-oriented due to structural constraints on Agree. Second, it is indicative of the fact that SR is derived by operations sensitive to syntactic factors such as structural height, supporting the claim that it is a syntactically-determined phenomenon.

A last characteristic of SR markers, also similar to anaphoric agreement on *v*, is that they are typically φ -invariant. Insensitivity to features such as person, gender or number is in fact a defining criterion of SR markers for McKenzie (2015). In analyses that consider SR morphemes as a spell-out of T, it is often stressed that T is deficient and does not inflect for any φ -features (Georgi 2012; Souza 2016). Note that while φ -features of arguments are not cross-referenced on SR markers, there is some variation among lan-

guages as to whether they encode other types of information on the SR marker alongside argument coreference. For instance, some languages encode the case of the superordinate subject on SR markers (e.g. Yawanawa, Amahuaca or Warlpiri), while others encode information about the temporal relationship that holds between the clauses (e.g. Amahuaca, Yawanawa and Seri to a lesser extent). While there is room for variation in the information encoded by SR markers, such information almost never includes φ -features, as attested by the paradigms of all the languages mentioned above and summarized here, ranging from simpler paradigms with only a SS/DS distinction (Washo, Inuktitut) to paradigms encoding tense (Amahuaca, Yawanawa and Seri) or case concord (Yawanawa and Warlpiri). There exist exceptions to this generalization, where SR markers are φ -covariant. These include the Trans-New Guinean languages Amele (Déchaine & Wiltschko 2002; Stirling 1993) and Kobon (Davies 1981; van Gijn 2016), which I will discuss in 8.1.3.

Table 8.1: Washo, Inuktitut and Seri SR paradigms

	SS	DS
Washo (Arregi & Hanink 2018)	\emptyset	<i>š</i>
Inuktitut (Pittman 2005)	<i>llu</i>	<i>ti-llu</i>
Seri (Georgi 2012)	\emptyset	<i>ta</i> (realis) <i>ma</i> (irrealis)

Table 8.2: Yawanawa SS paradigm (after Souza 2016)

	NOM	ERG
PFV	<i>ashe</i>	<i>shũ</i>
PROG	<i>i</i>	<i>kĩ</i>

Table 8.3: Amahuaca sequential SR paradigm (Clem 2019: 102)

		Superordinate		
		S	A	O
Adjoined	S	$=hax$	$=xon$	$=xo$
	A			
	O	$=ha$	$=kun$	

In summary, switch reference morphologically marks the coreference or disjoint reference of two arguments, located in two distinct clauses, on a functional head identified as

C. It is a syntactic phenomenon, subject to locality restrictions: it is only possible between subordinate clauses (as opposed to independent clauses), it only tracks the reference of the subjects of two immediately subordinate clauses in cases of multiple embeddings, suggesting that it is subject to intervention by other clauses, and finally it is sensitive to the syntactic notion of subject, i.e. structural height, rather than other factors like topichood, thematic roles or case. Finally, SR markers are typically φ -invariant: while they may encode, next to (non)-identity of arguments, properties like relative tense or case concord with the superordinate subjects, cross-linguistically they do not reflect the φ -features of the arguments they cross-reference. In a nutshell, switch reference is the φ -featureless morphological expression on a functional head (C) of referential (non)-identity of two arguments, conditioned by syntactic locality. SR markers thus share many similarities with v-level anaphoric agreement markers. In the next section, I show that a more precise parallel between syntactic conditions needed for the derivation of SR and verbal anaphoric agreement offers grounds for an analysis of SR as [ID]-anaphoric agreement.

8.1.2 Switch reference as anaphoric agreement

The properties of switch reference markers outlined above make it an ideal candidate for an analysis in terms of anaphoric agreement. In accordance with many recent accounts, I will first show that SR can be analyzed as complementizer agreement with both the subordinate and the superordinate subject, resulting in a multiple agreement configuration similar to those described for verbal anaphoric agreement. Building on the fact that SR markers are typically φ -invariant and that they encode coreference (or the lack thereof) of two arguments, I will then show that [ID]-features are better suited than φ -features to account for SR. This will allow me to come to the following conclusion.

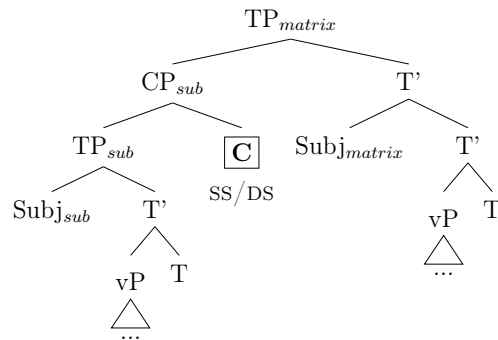
- (7) **Switch reference markers can be analyzed as anaphoric agreement in [ID]-features on C.**

This section will accordingly provide the derivations for anaphoric agreement on C, showing that my analysis can account for many of the properties of SR systems. Note that the parallel between verbal anaphoric agreement and switch reference was recently also drawn by [Baker and Souza \(2019\)](#), who, in a reversed enterprise, attempt to extend their account of SR to Shipibo and Bantu verbal reflexive markers.

Many recent accounts of SR have analyzed it in terms of agreement on C heads. To see this, let us consider the syntax of SR clauses. First, subordinate adjuncts bearing SR marking are taken to be full clauses, i.e. CPs. [Clem \(2019\)](#) for instance demonstrates that Amahuaca SR clauses are quite large: they allow for the overt expression of all arguments, all of them case-marked by their respective case-assigning heads, but also for the possibility of scrambling (both of verbal phrases and arguments) and for the insertion

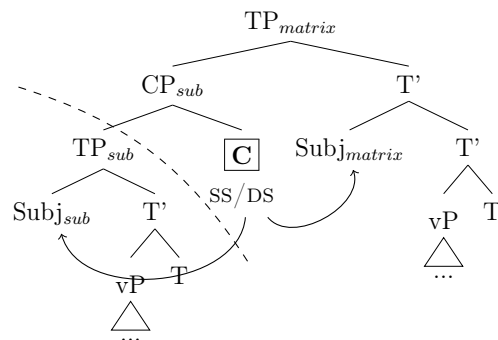
of adjuncts. SR markers themselves are argued to be realizations of C heads, as they cross-linguistically occur as the outermost suffix of the embedded CP (as seen above). In some languages, such as Washo (or possibly Warlpiri), the subordinate adjunct clause may be embedded into a nominalization, corresponding to a DP layer on top of the CP layer. With regard to their external syntax, accounts converge on the fact that SR-marked adjuncts CPs are merged very high in the main clause, in a position higher than the arguments of that clause. SR clauses are thus assumed to be adjoined to T, resulting in the following general configuration (Baker & Souza 2019; Camacho 2010; Clem 2019).

(8)



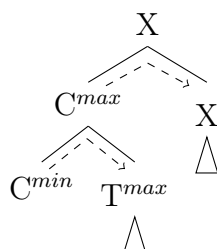
Given this structure, the claim that SR is the result of Agree on a probe located on C can be substantiated. We have seen in the preceding section that SR is subject to syntactic locality in several respects, a property characteristic of Agree operations. In particular, we saw that SR is phase-bound: SR markers may only cross-reference an embedded subject and its immediately superordinate subject, and cannot look beyond intervening clauses. If SR on C is the result of an Agree operation, the restriction to immediately adjacent CPs is straightforwardly explained by the fact that Agree is phase-bound. C, being a phase head, can however not only access the arguments within the clause it heads, but also the immediately higher phase, since it functions as an escape-hatch and remains accessible after spell-out of its complement.

(9)



Another hallmark of Agree is c-command, and in this respect, the above-represented structure calls for an accommodation of the system. Indeed, while C straightforwardly c-commands the embedded subject, c-command does not hold in a strict sense between C and the matrix subject. Clem (2019) proposes that the probe in C undergoes cyclic expansion, in the sense defined by Béjar and Rezac (2009). Their proposal is summarized by the tree below, reproduced from Clem (2019: 92).

(10)



The core idea is that if a probe does not find complete satisfaction in its c-command domain, it may reproject in a second cycle of Agree, expanding its probing domain. For instance in (10), the minimal projection of subordinated C first probes into its c-command domain, containing T^{max} /TP, where it finds the subordinate subject. Yet the probe is not entirely satisfied after this first cycle. When C reprojects to form a maximal projection (i.e. CP), the agreement probe on C reprojects as well, allowing a second cycle of Agree to take place, where the probe is now on C^{max} and now c-commands into X. This cyclic expansion thus allow C in (9) to probe into matrix T and agree with the matrix subject, without sacrificing the c-command requirement.

Finally, the structure in (9) accounts for the strong cross-linguistic tendency towards subject-orientation of SR markers. Indeed, the embedded subject and the main subject are respectively the closest c-commanded arguments for the C head (which so far probes downwards). They thus constitute a priori the closest goals for a probe in C, in the absence of any additional specification of this probe.

Accounts diverge as to the features involved in the Agree relation regulating SR. In an interesting parallel with the debate on the features of binding, some accounts argue that SR is the reflex of a φ -Agree relation (Baker & Souza 2019; Camacho 2010), while others rely on the action of referential features or indices (Arregi & Hanink 2018; Clem 2019). I argue that there is evidence supporting the latter hypothesis, in keeping with the arguments outlined above in favor of [ID]-features in v-level anaphoric agreement.

First, SR morphemes primarily encode coreference, i.e. referential identity, of arguments. I have argued at length in previous chapters that φ -features alone do not suffice to encode referential identity. In SR like in reflexive binding, φ -features only restrict the possible domain of reference, and matching φ -features on two DPs do not entail coreference.

Similarly, it is not clear why an agreeing functional head, agreeing with two matching φ -sets, would not simply reflect their φ -features. As illustrated in the paradigms at the end of the previous section, SR markers are typically φ -invariant, providing no morphological evidence of the involvement of φ -features. Finally, an empirical argument from the domain of SR militates against φ -features. McKenzie (2015) and Arregi & Hanink (2019) consider cases of partial coreference or reference overlap, when the reference of one subject contains that of the other but does not exhaust it. In such cases, a number of languages, including Washo, which is illustrated below, allow the SS marker to arise. In the following examples, the referents of the plural main subject contain that of the singular embedded subject, or vice versa, and the SS and the DS markers are in free alternation.

(11) *Washo*

- a. [Emily_i gé:gel-a [-š/Ø]] {Adele ida Emily}_{i,j} wagayáy-i
 Emily 3.sit-DEP -DS/SS Adele and Emily 3.talk-IND
 ‘Adele and Emily_{i,j} are talking while Emily_i is sitting.’
- b. [{Adele ida Emily}_{i,j} wagayáy-a [-š/Ø]] Emily_i bašʔ-i
 Adele and Emily 3.talk-DEP -DS/SS Emily 3-write-IND
 ‘Emily_i is writing while Adele and Emily_{i,j} are talking.’ (Arregi & Hanink 2019: 35)

A φ -feature approach to SR does not predict SS marking to be able to occur in cases where the φ -features of both subjects do not match, as is the case in the examples above. Indeed, under the postulate that SS is derived by matching φ -features, this approach would predict that φ -mismatch automatically yields DS, as schematized below.

- (12) a. DP₁[3,SG] ... C[] ... DP₂[3,PL] → mismatch → DS
 b. DP₁[3,SG] ... C[] ... DP₂[3,SG] → match → SS

Alternatively, one could assume that SS can arise as the result of partial φ -matching, i.e. that it is enough that a subset of φ -features of one of the DPs matches the features of the other. However, this would considerably overgenerate, allowing SS to surface whenever both subjects are singular or 3rd person, for instance, regardless of their reference.

In contrast, an approach in terms of [ID]-features that takes reference into account by means of indices is able to explain the availability of SS marking, if one assumes that matching of a subset of indices is sufficient.

- (13) a. DP₁[i] ... C[] ... DP₂[j] → mismatch → DS
 b. DP₁[i] ... C[] ... DP₂[i] → match → SS
 c. DP₁[i] ... C[] ... DP₂[i,j] → partial match → SS or DS

These observations make a case against the use of φ -features in SR and in favor of ref-

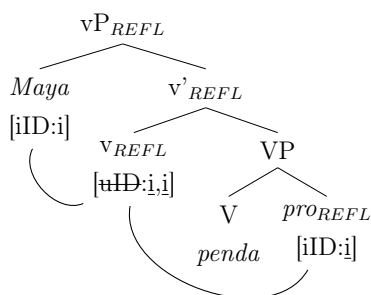
erential [ID]-features. It can thus be concluded that the SR can be analyzed in terms of agreement and specifically of agreement in [ID]-features, providing grounds for the extension of my model of anaphoric agreement to SR contexts. In chapter 6, anaphoric agreement was defined as follows.

- (14) Spell-out anaphoric agreement when a functional head stands in an Agree relation with two interpretable [ID]-features of the same value.

Anaphoric agreement was argued to be the product of two conditions: first, a multiple valuation configuration, in which a functional head with an unvalued [$\text{uID:}___\text{]$ stands in an Agree relation with two arguments, and second, matching [ID]-features. In the case of v-level anaphoric agreement, I argued that these conditions straightforwardly follow from the fact that the lower argument, i.e. the reflexive anaphor, has an unvalued [ID]-feature. This ensured that the [ID]-features of both DPs would match, as the value of one depends on the other, but also that the multiple agreement relations would be established and v's two features would be valued, as the anaphor would be forced to probe upwards for a value, encountering first v and then the antecedent. Finally, I also assumed that the functional heads involved in anaphoric agreement were v_{REFL} heads, accounting for the presence of an [ID]-probe. The derivation of Swahili anaphoric agreement on v is schematized again below.

- (15) *Swahili anaphoric agreement on v*

- a. Maya a- na- **ji-** penda pro_{REFL} .
 Maya SM1- PRS- RFM- love
 'Maya loves herself.'
- b.

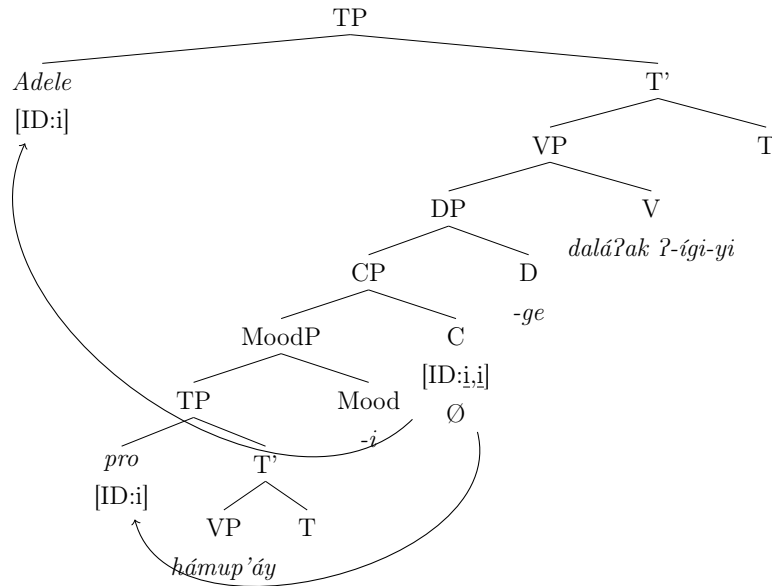


At first sight, SR differs from v-level anaphoric agreement in one important respect, namely that the lower argument is not explicitly a reflexive anaphor. In some SR languages (e.g. Warlpiri), the embedded subject is obligatorily null, leaving open the possibility of an anaphoric *pro* (or PRO). However, in many others (e.g. Yawanawa), an overt subject can be present, taking the form of a pronoun or a noun. To my knowledge, in no language does the subject of an SR-clause assume a reflexive or anaphoric form. For this reason,

other accounts of SR as index-agreement (Arregi & Hanink 2018; Clem 2019) simply assume that both subjects bear valued features and act as goals for a single probe on C. This comes with the assumption that Agree is bidirectional and cyclic in the sense of Béjar and Rezac (2009), namely that C probes first down and then up, thereby agreeing with both subjects. This is exemplified below with the derivation of SS marking in Washo, after Arregi and Hanink (2018).

(16) *SS in Washo: the analysis of Arregi and Hanink (2018)*

- a. Adele_i [_{CP} daláʔak ʔ_i-ígi-yi -Ø] -ge hámpup'áy-e:s-i
 Adele mountain 3-see-IND -SS -NMLZ 3.forget-NEG-INDEP
 'Adele_i remembers that she_i saw the mountain.'
- b.



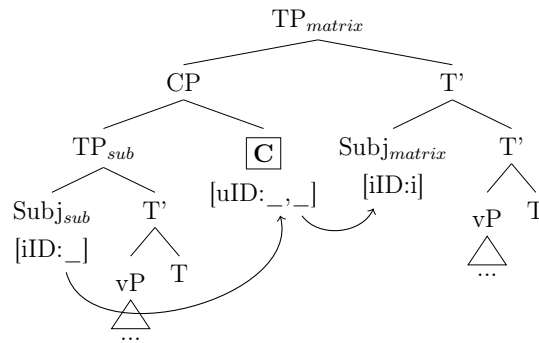
However, I believe that it is possible to maintain a stricter parallel with v-level anaphoric agreement and the assumption, made throughout this thesis, that Agree applies upward and to keep the [ID]-feature of the lower argument inherently unvalued despite its non-anaphoric morphology. Indeed, the discussion of minimalist accounts of binding in chapter 2 introduced the idea that an anaphoric feature specification (i.e. unvaluedness) is not necessarily matched by an anaphoric morphological form. For instance, many languages lacking dedicated anaphoric forms use the pronominal paradigm (e.g. West Flemish, Rooryck and Vanden Wyngaerd 2011) in local binding contexts. Some languages even allow what looks like Principle C violations, allowing coreferring proper nouns to be locally bound (e.g. Khmer or Thai, see Heinat 2008). This state of affairs may carry over to long-distance binding contexts; in fact, many languages do not have specific long-distance anaphors, but revert to pronominal forms in cross-clausal contexts. The

use of a pronominal form does not prejudge its bound or unbound status – for instance, Charnavel and Mateu (2015) show that French pronouns may be bound across clauses. Therefore, the assumption can reasonably be made that in SR languages allowing an overt nominal or pronominal subject in SR-clauses, that subject nonetheless has an unvalued $[iID: _]$ feature, requiring binding by a higher antecedent. Since binding is mediated by C, it obeys locality restrictions imposed on binding, as each step of the Agree relation is strictly phase-bound.

Thus, C-level anaphoric agreement can be derived using the exact same set of assumptions as for v-level anaphoric agreement, namely strict Upward Agree for $[iID]$ -features, a one goal-two probes configuration and feature sharing. This results in the following derivation.

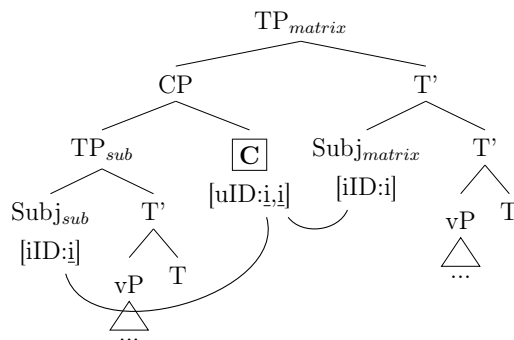
The unvalued $[iID]$ -feature of the subordinate subject probes up, and encounters the matching but unvalued $[iID]$ -feature of the C head. Upon merger of the embedded C with the matrix clause, the feature of the C head continues to probe up (through cyclic expansion) and matches with the valued $[iID]$ -feature of the matrix subject.

(17) *Initial state*



This triggers valuation, by means of feature sharing, of both the C head and the lower subject, resulting in the configuration yielding anaphoric agreement. C stands in an Agree relation with two DPs with matching $[iID]$ -feature values.

(18) *Outcome*



SS markers are thus nothing other than anaphoric agreement on C. This is a welcome conclusion, which allows for a unified treatment of two phenomena that are usually discussed and analyzed separately.

In the proposed system, DS markers are simply derived by absence of multiple agreement. When the reference of the embedded subject is inherently specified, there is no upward probing on the part of that subject, and it establishes no relation with C. I leave open the possibility that C always bears an [ID]-probe, in which case it would only probe up and agree with the matrix subject. This, however, would not result in the configuration yielding anaphoric agreement.² The C head is then spelled out as a default form, possibly the bare, non-inflected form of the complementizer (Baker & Souza 2019; Souza 2016).

A consequence of this proposal is that DS markers are in fact not derived through the same mechanisms as SS. They are therefore not predicted to be morphologically related. The empirical picture is split on this aspect: while in some languages, DS and SS markers are morphologically related (e.g. in Hopi (van Gijn 2016) or in Amele (Déchaine & Wiltschko 2002)), in some others they are clearly not and even significantly differ. For instance in Yawanawa (Souza 2016) and Warlpiri (Legate 2002b), DS markers do not vary according to the case of the superordinate subject, unlike SS, suggesting that the former might not stand in the same agreement relations with that subject. Similarly in Shipibo (Baker & Souza 2019), DS clauses bear the normal aspect markers in T, as opposed to SS clauses which fuse T with C, resulting in a rich SS paradigm.

More promising support comes from the distribution of DS vs SS markers: indeed, if DS marking is the default, it is expected to surface in a broad range of situations, while SS would not. This prediction seems to be borne out. Baker and Souza (2019) cite evidence from Shipibo and Yawanawa, showing that these languages have gaps in their SS paradigms, preventing the expression of subject coreference in the imperfective aspect. In such cases, the languages revert to DS markers despite the presence of coreferent subjects, suggesting that DS is indeed a default form. This hypothesis is also supported by cross-linguistic evidence on the availability of SS and DS markers in cases of partial coreference. McKenzie (2015) establishes from his large survey of SR in North-American languages that all languages allow DS marking with partial coreference, and many of them require it. While some languages allow SS marking with partial coreference (like we saw for Washo), no language requires it, and it always remains an optional alternative to DS marking. This suggests that while DS is always available as a default option, SS is much more restricted and only surfaces in given conditions. Finally, a last argument in favor

²Note that economy reasons would then require the assumption that, if an embedded subject has an inherently specified index, that index is obligatorily disjoint from that of the main subject. If a pronominal form has the ability to be bound (which it can through the mediation of an [ID]-bearing C probe), then there is no necessity for it to be assigned an inherent index, as it can inherit it derivationally.

of the claim that DS is the default marking is a theoretical one that aligns with current views of Principle B. Indeed, as highlighted by Baker and Souza (2019), modern binding theories only syntactically constrain the distribution of anaphors (coreferential forms), while regular pronouns are simply blocked by a pragmatic mechanism and/or economy principle from occurring in the same position for the same interpretation (Rooryck & Vandenberg Wyngaerd 2011). In other words, there is no non-coreference condition in minimalist binding theories; if one commits to the parallel between anaphoric binding and switch reference, there is thus no reason why there should be such a non-coreference condition there either.

It should however be noted that an opposite view is defended by Arregi and Hanink (2018, 2019), who argue that the C head always agrees with multiple goals, regardless of their indices. The form of the complementizer, DS or SS, is determined by the specification of indices. Matching indices on C will yield SS marking, while a mismatch will derive DS marking. Their account has the advantage of accounting for a cross-linguistic tendency of SR markers, namely that SS markers are often less marked (for instance often have a null exponent, cf Washo or Seri) compared to DS markers. Languages would thus morphologically reflect the most marked scenario, i.e. a switch in subjects. However, relying on the arguments cited in the previous paragraph, I adopt the view that DS correspond to the absence of multiple agreement and to a default form, which Arregi and Hanink's analysis cannot account for.

This section has shown that given the proposed structure of SR clauses (adjunction to matrix T), their syntactic properties (phase-boundedness and c-command under cyclic expansion), and the morphological and interpretative characteristics of SR markers (φ -invariance, referential sensitivity and availability of SS markers in partial coreference contexts), SR should be analyzed as an instance of anaphoric agreement on C, i.e. multiple agreement in [ID]-features. While this proposal should be developed with more precision for individual languages, this represents a promising extension for the system proposed in part II of this thesis, and evidence for the role of [ID]-features in syntax. The next section addresses remaining cross-linguistic issues and shows how they can be accommodated within a theory of SR as anaphoric agreement.

8.1.3 Remaining issues and cross-linguistic variation

The theory proposed in the previous section can also account for cross-linguistic variation in the domain of SR, building on the insights from previous accounts. Although it is beyond the scope of this thesis to provide a detailed language-by-language account of SR, I will nonetheless comment on four areas of cross-linguistic variation that can be accommodated within the present theory: case concord, relative tense marking, non-subject-oriented SR, and φ -covariant SR markers.

Case on SR markers It was mentioned above that in certain languages, for instance Panoan languages or Warlpiri, SR markers show a form of case concord with the case of the superordinate subject. This is illustrated for Yawanawa below, where the form the SR marker changes in function of the case of the superordinate subject.

(19) *Yawanawa*

- a. [*pro* yuma pi-**ashe**/***shũ**] Shukuvena maikiri ka.
 fish eat.SS.NOM/SS.ERG Shukuvena.NOM down.river go.PFV
 ‘After eating fish, Shukuvena went down river.’
- b. [*pro* yuma pi-**shũ**/***ashe**] Shukuvenã ea kena.
 fish eat.SS.ERG/SS.NOM Shukuvena.ERG 1SG.ACC call.PFV
 ‘After eating fish, Shukuvena called me.’ (Souza 2016: 8)

Both SR markers in these examples encode coreference of subjects, yet they have two different forms. In (19a), the main verb is intransitive and selects a nominative subject, while in (19b), it is transitive and takes an ergative subject, Yawanawa being an ergative language. The grammatical function of the coindexed argument does not change – switch reference in Yawanawa only takes into account coreference between subjects – but its case does. The switch reference marker therefore reflects the case of the superordinate subject, nominative in (19a) and ergative in (19b), alongside its (non-)identity with the embedded subject.

Several alternatives can be proposed to deal with case-sensitivity and case-concord of SR markers. Baker and Souza (2019) simply propose that case and SR are separate morphemes, which originate in separate probes on separate heads (and can either be morphologically fused in a single affix or kept separate). SR agreement takes place in C, while case agreement is due to a separate case probe on a higher head H. Their account thus basically treat case concord as a phenomenon fully orthogonal to SR, by simply postulating a higher case probe responsible for case agreement. Clem (2019) integrates case as part of the same Agree operation that yields SR, by proposing that while the probe in C does not probe for case, case features present on the superordinate subject automatically interact with the C probe, as they are part of the feature set of that subject and are articulated with its φ -features (either in a hierarchial feature geometry or as multiple disjoint sets of features). Her key idea is that while the probe is not valued with case features, it interacts with them, resulting in different morphemes. Finally, Arregi and Hanink (2018) argue that C in Washo is case-discriminating in the sense of Bobaljik (2008), to account for the fact that SR may only target nominative arguments (hence subjects) in this language. Although SR in Washo does not have case-concord properties, one could imagine that if C heads are specified to discriminate between certain cases (e.g. by a case feature or diacritic of some sort), they would be able to access and copy the case of the argument they agree with. There thus exist several technical possibilities that

allows the case feature of the superordinate subject to interact or be shared with the C head.

Temporal information on SR markers Similarly, the integration of tense information is accounted for in several papers in ways that are compatible with the present account. One possibility is to include tense features in the agreement relationship, for instance by making the Agree operation transit via matrix T or have the locus of SR be in matrix T (as proposed for instance by Baker and Souza 2019; Déchaine and Wiltschko 2002). Assuming SR on C, the tense feature of the matrix would thus be transmitted to embedded C via matrix T and the subject, and interact with the tense feature of embedded T. Tense values of both clauses would thus be compared and yield different match or mismatch conditions, resulting in different morphemes and different interpretation. This line of analysis is comparable to that proposed by Kauf and Zeijlstra (2018) for sequence-of-tense phenomena. Another avenue to account for the presence of relative tense information on SR markers would be to consider that in some languages, [ID]-features and indices not only contain information about the discourse participants, but also about the discourse time and location. In the same way that indices would be evaluated against a syntactic representation of participants (SAP), time indices could be evaluated against a representation of utterance time. [ID]-features would thus integrate other context parameters in syntax. This conception of things taps into ideas developed by works such as Gruber (2013), Bliss and Gruber (2015) or Ritter and Wiltschko (2009, 2014) who argue that anchoring categories (which they define as DP and IP, the latter corresponding for me to SAPs), but also personal pronouns, can reflect information about either time, location or participants of the utterance.³ Given the role given to [ID]-features to overtake similar functions, it is only natural to imagine that their values could also fix and transmit information about the utterance time, with morphosyntactic reflexes as a result. The details of this hypothesis are left to future research, but might constitute a way – although not the only possible one – to integrate tense information on SR markers within the present proposal.

The previous sections have left aside two important domains of cross-linguistic variation, which despite being rarer, could nevertheless constitute challenges for the analysis proposed here, namely (i) the existence of SR markers that cross-references not only subjects but also objects, and (ii) the existence of SR markers that show person, number and/or gender inflection. I will show that while the latter case can actually comfortably be accommodated within the theory proposed above, the former remains problematic for most accounts of SR as Agree.

³This also fits with the idea, going back to Partee (1973, 1984), that tenses are pronominal and hence can be anaphoric or disjoint in reference.

φ -covarying SR markers One of the arguments in arguing that [ID]-features, and not φ , are responsible for SR marking was that in most languages, SR markers are φ -invariant, i.e. do not reflect the φ -features of any of the arguments involved. However, this observation, although cross-linguistically dominant, is not universal. In some languages, SR markers exhibit the full range of φ -distinctions. This is illustrated in the following examples from Kobon (Trans-New Guinea), in which coreferent subjects of different persons trigger different forms of SS markers, encoding the person and number information of the coindexed arguments.

(20) *Kobon*

- a. Yad bi anöbu nöŋ-**em** (nipe) wiñal-**em** manö hag-pin
 1SG man that perceive-SS.1SG 3SG shout-SS.1SG talk say-PFV.1SG
 ‘I saw the man, called him and spoke with him.’ (Davies 1981: 84)
- b. Ne bi milep li-**mön** au-ag-an
 2SG man old put-SS.2SG come-NEG-PST.2SG
 ‘You are an old man and so you did not come.’ (Davies 1981: 79)
- c. Pi ranu me ke kankan g-**öm** ñip-öb
 offspring that 3SG REFL soup do-SS.3SG eat-PFV.3SG
 ‘He made soup of his own child and ate it.’ (Davies 1981: 82)

The paradigms of SR markers of Kobon and Amele, two Trans-New Guinean languages, are reported below.

Table 8.4: Kobon switch-reference markers (van Gijn 2016: 8)

	SINGULAR		DUAL		PLURAL	
	SS	DS	SS	DS	SS	DS
1	-em	-nö	-ul	-lo	-un	-no
2	-(m)ön	-ö	-mil	-lö	-mim	-be/-pe
3	-öm	-ö	-mil	-lö	-öm	-lö

Table 8.5: Amele switch-reference markers (Déchaine & Wiltschko 2002: 435)

	SINGULAR		DUAL		PLURAL	
	SS	DS	SS	DS	SS	DS
1	-ig	-igin	-u/Ø	wan	-b	-qon
2	-g	-gan	-si	si-n	-ig	-gin
3	-g	-n	-si	si-n	-ig	-gin

The existence of such systems, while calling for an explanation, is in no way fatal for an account in terms of [ID]-features. In the same way that it was possible for v-level anaphoric agreement markers to be φ -covariant (e.g. the potential case of Classical Nahuatl), there is no reason why φ -agreement should not be allowed to take place next to [ID]-agreement. Complementizer φ -agreement is common across the world's languages, including in languages without switch reference (e.g. West Flemish, Lubukusu). I suggest that in languages that have φ -covarying SR markers, C bears a φ -probe next to its [ID]-probe (and potentially also a case-probe, as discussed above). The different features of the C head are then spelled out as a single morpheme, or, one can imagine, separate morphemes, as we have observed of case. Crucially, the encoding of reference on these morphemes, i.e. SR proper, remains the result of [ID]-agreement. Alternatively, one could also hypothesize that the φ -probe is located on a different head, such as T, and that both heads are spelled-out as a unique morpheme.⁴ While such systems arguably introduce a certain amount of redundancy, they remain cross-linguistically rare, and may constitute, as proposed by Comrie (1983), an intermediate stage between diachronically well-established SR systems and pre-SR-systems making use of logophoric pronouns only.

Non-subject-oriented SR Finally, I have so far only introduced exclusively subject-oriented SR systems. However, some (statistically much rarer) languages allow SR markers to encode coreference of a subject and an object, or even of two objects (Amahuaca, Clem 2019). Warlpiri (Pama-Nyungan) is an example of the former pattern.

(21) Warlpiri (Bittner & Hale 1993: 19)

- a. Japanangka-rlu Ø Jakamarra nya-ngu
 Japanangka-ERG PFV.3SG.3SG Jakamarra.ABS see-PST
 [yuka-nja-**karra**-rlu].
 enter-INF-**SS**-ERG
 'Japanangka_i saw Jakamarra_j when he_i entered.'
- b. Japanangka-rlu Ø Jakamarra nya-ngu [yuka-nja-**kurra**].
 Japanangka-ERG PFV.3SG.3SG Jakamarra.ABS see-PST enter-INF-**SO**
 'Japanangka_i saw Jakamarra_j when he_j entered.'

In (21a), the *pro* subject of the subordinate temporal adverbial is coindexed with the

⁴van Gijn (2016: 8) suggests in these systems, SR markers should be treated as pronominal rather than inflectional, as they are according to him the result of the fusion of coreferentiality with the bound pronominal system. Relatedly, Stirling (1993: 39) notes of Amele that "switch-reference is marked partly by invariant SS and DS morphemes, partly by reduplication, and partly by choice of subject agreement paradigms from a subset of paradigms which occur only on switch reference marked verbs", seemingly corroborating the claim the φ -covariant parts of the paradigm would in fact be subject agreement rather than SR markers. The consequences of these claims should be evaluated by further research, but if substantiated, would remove languages like Kobon and Amele from the list of SR systems. See also discussion of these facts in Baker and Souza (2019).

subject of the main clause *Japanangka*, and the infinitive verb surfaces with the marker *karra*. In contrast, in (21b), where the embedded subject is coreferent with the object of the main clause *Jakamarra*, the verb is inflected with the form *kurra*. *Karra* thus indicates coreference of subjects, while *kurra* indicates coreference of the embedded subject with the superordinate object. Finally, when the subject of an embedded adverbial clause is overt or is not coreferent with any argument of the main clause, then the inflection takes the default form *rlarni* (often glossed obviative).

- (22) Kurdu-lpa manyu-karri-ja, [ngati-nyanu-rlu karla-nja-**rlarni**].
 child-PST.IPFV play-stand-PST mother-POSS-ERG dig-INF-**DS**
 ‘The child_i was playing, while his mother_j was digging (for something).’ (Laughren 1987 in Legate 2002b: 140)

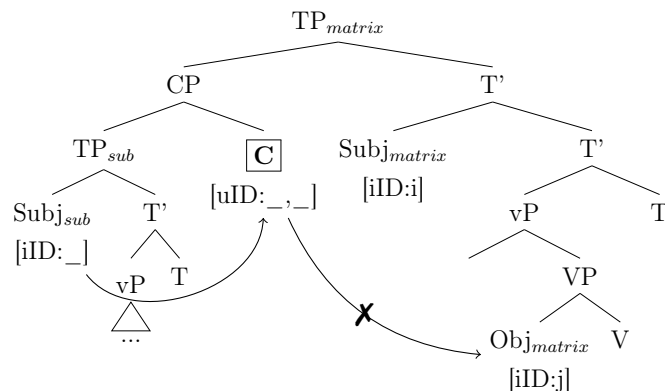
Additionally, Warlpiri SR markers inflect for case, yielding the following paradigm.

Table 8.6: Warlpiri SR paradigm (after Legate 2002b)

	SS	SO	DS
ERG	<i>karra-rlu</i>	—	
ABS	<i>karra</i>	<i>kurra</i>	<i>rlarni</i>
DAT	—	<i>kurra-ku</i>	

These patterns appear problematic for the account of SR as anaphoric agreement that I propose. Given the structure given above, if SR is agreement on C, we do not expect agreement with matrix objects to be able to occur, given that matrix subjects structurally intervene.

(23)



One way to circumvent this subject intervention would be to postulate movement of the object (or of an element linked with the object, e.g. *v*) to a position above the subject. For instance, Baker and Souza (2019) suggest that object-oriented switch reference is possible

due to head movement of *v* to a position adjoined to C. In their system, heads like T and *v* act as pointers to the pivot arguments, and SR is derived by head movement of the pointer to C, where it is able to establish a link with the subject. If *v* moves, the link that it has previously established with the object remains, allowing to derive Same Object marking. By their own admission, this solution is a marked one as it involves a type of unusual movement. A hypothetical solution along the same lines would be to assume that objects acting as pivots for SR themselves move to a position c-commanding the subject, thereby circumventing intervention. Alternatively, Clem (2019) demonstrates that in Amahuaca, in which all types of coreference relations can be encoded by SR (including object-object coreference), objects must shift to the specifier of vP (in what would be akin to object shift, Holmberg 1986). One could assume that in this position, both the subject and the object are equidistant from C (Chomsky 1995b; Ura 1996) and therefore both are appropriate goals for C. This solution, however, raises several questions about the timing of operations (e.g. would the subject not have already raised to TP by the time C probes?). Note that Clem's account relies on C being an insatiable probe (probing over and over). This assumption is not easily accommodated in my account, where the probing is initiated by the anaphor, not by C, making it difficult to argue that anaphors are insatiable probes. Finally, a last possible path to explore would be that embedded CPs whose subjects are matrix object-coreferent merge lower than T, e.g. adjoin to vP or VP, in a position where only objects are c-commanded. This proposal however would need to be corroborated by empirical evidence.

Cases of non-subject-oriented SR are therefore not straightforwardly accounted for. Although several possible solutions have been put forth, some of them from existing accounts, they all require additional stipulations, whose empirical correlates should be thoroughly checked. How to account for non-subject-oriented SR remains an open question.

8.1.4 Conclusion

This section has explored the similarities between verbal reflexive markers of the type observed in previous chapters and the phenomenon of switch reference, showing that the many parallels warrant an extension of the analysis of anaphoric agreement to switch reference. The proposal developed in chapter 6 was thus applied to the cross-clausal domain, showing that SR markers are the morphological expression of anaphoric agreement on C heads. The proposal made in this section shares many insights with recent accounts of SR, in particular Arregi and Hanink (2018, 2019); Baker and Souza (2019); Clem (2019). It is very close from the [ID]-based analysis proposed by Arregi and Hanink (2018, 2019), on which it builds and from which it differs essentially in one core assumption, namely that probing is initiated by an anaphor and not by C. It differs more substantially from

the proposal of Baker and Souza (2019), who rely on Agree for φ -features, albeit not in a traditional sense. They assume two different operations, Agree-Link and Agree-Copy, and propose that SR is the result of an Agree-Link relation between C and two arguments, without the actual copying of φ -features, thus accounting for the φ -invariance of SR markers. My account shares with theirs the insight that SR is the product of a multiple agreement relation resulting in a link between three parties, instantiated for them by Agree-Link and for me by feature sharing. Additionally, it is to my knowledge the only other account making the connection between switch reference and verbal reflexive markers. However, besides the non-canonical assumption that Agree is split into two different types of operations, it is unclear how their proposal fares with respect to issues like SS-marking with partial subject coreference, which is one of the strengths of an [ID]-based approach. In the next section, I further extend the analysis of anaphoric agreement to DP-internal reflexive possessor agreement.

8.2 Anaphoric agreement on D: reflexive possessor agreement

Anaphoric agreement is also found at the level of nominal phrases, more precisely at the DP level. Many languages have special reflexive possessor agreement markers on possessed nouns, which encode coreferentiality between the possessor of an NP and the subject of the clause. This type of agreement is also known under the name 4th person agreement or proximate agreement. Given the similarities of this type of agreement with other reference tracking morphemes on functional heads such as v or C, I will show here that the analysis proposed for anaphoric agreement can also be extended to the DP level, as captured by the following statement.

- (24) **4th person or proximate possessor agreement markers can be analyzed as anaphoric agreement in [ID]-features on D.**

This section is structured as the previous one. In 8.2.1, I first introduce the phenomenon of reflexive possessor agreement (focussing on the Inuit and Emerillon languages) and show that it shares many of the characteristics of anaphoric agreement. In 8.2.2, I detail the syntactic derivation of reflexive possessor agreement as anaphoric agreement, following the template established for v and C agreement. Finally, in 8.2.3, I discuss an issue raised by the empirical patterns of anaphoric possessives, namely a cross-linguistic correlation, established by Reuland (2011) and Despić (2015), between the existence of anaphoric possessors and the presence/absence of a D head.

8.2.1 Reflexive possessor agreement

While certain languages encode possession using possessive determiners, such as English in (25), others do so using agreement markers which surface as affixes on possessed nouns. An example is given in Tundra Nenets in (26), in which free-standing pronominal possessors are optional, but the person and number of possessor must be marked in the form of an inflected suffix on the possessum.

(25) *English*

- a. **his** wife
3SG.POSS wife
- b. **our** dogs
1PL.POSS dog.PL

(26) *Tundra Nenets* (Nikolaeva 2014: 143)

- a. (pida) puxaća-**da**
3SG wife-3SG
'his wife'
- b. (məñih) weñaku-**ñih**
1DU dog.PL-1DU
'our dogs'

Inuit (Eskimo-Aleut) is another such language.⁵ Inuit has a system of possessor agreement marked on the possessum. Inflectional portmanteau suffixes on the possessum encode the person and number features of the possessor, but also the number of the possessum. This is illustrated in the examples below, where it can be observed that the form of the suffix changes depending on both the number feature of the possessor and that of the possessum (the dog(s)).

(27) qimmi-**ra**
dog-1SG.SG
'my dog'

(29) qimmi-**kka**
dog-1SG.PL
'my dogs'

(28) qimmi-**vut**
dog-1PL.SG
'our dog'

(30) qimmi-**vut**
dog-1PL.PL
'our dogs'

[South Baffin Inuktitut] (Yuan 2015: 168)

The suffix also varies with the person of the possessor. In the example in (31), the suffix reflects the 3rd person singular feature of the owner of the pencils as well as the

⁵Inuit is a dialect continuum, comprising several varieties such as Inuktitut and West Greenlandic (Kalaallisut). I make use of examples from several dialects here, whose names are indicated in square brackets in the examples.

plural feature of the pencils themselves – contrast with the 1st person markers in the above examples.

- (31) Jaani surak-si-juq titirauti-**ngin**-nit
 John.ABS break-AP-INTR-3SG pencil-3SG.PL-OBL
 ‘John broke his/her pencils.’ [South Baffin Inuktitut] (Yuan 2015: 161)

In addition to its ‘regular’ number and person possessor agreement paradigm, Inuktitut also has special reflexive agreement morphology that can be found as possessor agreement (Bittner 1994; Johns 1987, 1996), illustrated in the examples below.

- (32) a. Anguti-p irni-**a** taku-j-a-a.
 man-ERG son-3SG.SG.ABS see-PTCP-TR-3SG.3SG
 ‘The man_i sees his_{*i/j} son.’
 b. Anguti-p irni-**ni** taku-j-a-a.
 man-ERG son-3SGREFL.SG.ABS see-PTCP-TR-3SG.3SG
 ‘The man_i sees his_{i/*j} son.’ [Qairnirmiut] (Johns 1996: 123)

In these examples, the possessed NP *irni*- ‘son’ in the absolutive bears a possessive agreement marker. When the reference of the possessor is disjoint from the higher argument, then it bears the 3rd singular marker *-a*. When the possessor has the same reference than the higher argument, then it bears a different possessive agreement morpheme *-ni*, i.e. a reflexive agreement morpheme, glossed 3SGREFL agreement.

This special anaphoric agreement is restricted to 3rd person antecedents. When the antecedent is 1st or 2nd person, regular person agreement surfaces on the possessum.

- (33) qimmi-up kii-qqau-ja-nga irni-**ra**
 dog-ERG bite-PST-TR-3SG.3SG son-1SG.SG.ABS.
 ‘The dog bit my son.’ [South Baffin Inuktitut] (Yuan 2015: 162)

Such reflexive possessive agreement has been labelled 4th person agreement in the Inuit literature. For instance, Sadock (2003: 6) remarks in his descriptive sketch of West Greenlandic that the category of person has four values: 1st, 2nd, 3rd and what he calls 3rd reflexive. The same characterisation is made in Fortescue’s (1984: 205) grammar of West Greenlandic. Bittner (1994) uses the name *proximate* agreement, which she classifies as reflexive elements, as opposed to obviative agreement (Bittner 1994: 145). It is also mentioned in Baker (2008: 151) as anaphoric agreement. The paradigm of West Greenlandic possessor agreement markers is summed below.

Although better known from the Eskimo-Aleut language family, including Inuit varieties, but also Central Yup’ik, illustrated below in (34), reflexive possessor agreement is also reported in other language families, such as the Tupian languages, as for instance Káro (Ramarama), Emerillon (endonymically Teko) or Tapirapé (both Tupi-Guarani).

Table 8.7: West Greenlandic possessive markers (partial paradigm, after Sadock 2003: 66)

	SG POSSESSUM		PL POSSESSUM	
POSSESSOR	ABS	ERG	ABS	ERG
1SG	-Ga	+ma	-kka	-ma
2SG	-t	+(r)pit	-t	-vit
3SG	-a	-ata	-a	-ata
3REFL.SG	+ni	+mi	+ni	+mi
1PL	+(r)put	-tta	-vut	-tta
2PL	+(r)si	-ssi	-si	-ssi
3PL	-i	-isa	-at/-i	-isa
3REFL.PL	+(r)tik	+(r)mik	-tik	-mik

- (34) *Central Yup'ik* (Eskimo-Aleut) (Payne 1980: 80 in van Gijn 2016: 11)

Yero-q angya-**mi**-ni qavq-llru-u-q
 Yero-ABS boat-3SGREFL-LOC sleep-PST-INTR-3SG

‘Yero_i fell asleep in his_i boat.’

- (35) *Káro* (Tupian, Ramarama) (Gabas 1994: 137)

- a. naʔto **to**-wirap ʔo-t
 tapir 3SGREFL-food eat-ASP
 ‘The tapir_i ate its_i own food.’
- b. naʔto **aʔ**-wirap ʔo-t
 tapir 3SG-food eat-ASP
 ‘The tapir_i ate [someone else’s]_j food.’

- (36) *Emerillon* (Tupi-Guarani) (Rose 2003: 586)

- a. bokal-ape **o**-akaŋo-mõde
 jar-a-in 3SGREFL-head 3-put
 ‘He_i put his_i head in the jar.’
- b. **i**-dʒakaŋ-ʔal zawal o-wul
 3SG-head-a-on dog 3-climb
 ‘The dog_i climbed on its_j head.’

- (37) *Tapirapé* (Tupi-Guarani) (Jensen 1999: 150)

- a. ã-ma-pén **we**-pá
 1SG-CAUS-break 1SGREFL-hand
 ‘I_i broke my_i hand.’
- b. ere-ma-pén **xe**-pá
 2SG-CAUS-break 1SG-hand

‘You_i broke my_j hand.’

As these examples illustrate, in all of these languages a different possessor agreement prefix surfaces on the possessed noun depending on whether the possessor is coreferential with another argument of the clause (in these cases the subject). In Káro (example (35)), the morpheme *to-* encodes coreferentiality of the 3rd person possessor and the subject, while *aʔ-* is used when no such coreference exists (but the possessor is still 3rd person). Similarly in Emerillon in (36), *o-* indicates coreference for the 3rd person, while *i-* marks disjoint reference. Finally in (37) from Tapirapé, if both the subject of the clause and the possessor are 1st person (and thus are coreferent), the prefix *we-* attaches to the possessum. If the subject is a different person, i.e. has a disjoint reference, the morpheme occurs as *xe-*.

While specific reflexive possessor agreement morphemes occur only for 3rd person in Inuit or in Emerillon (see paradigms above and below), in Tapirapé, all persons and numbers have a reflexive or coreferential equivalent in the paradigm (see below).

Table 8.8: Emerillon possessive markers (after [Rose 2003: 33](#))

	SG	PL	
		INCL	EXCL
1	<i>e-</i>	<i>nõde-</i>	<i>ole-</i> (<i>olone-</i>)
2	<i>de-</i>	<i>pe-</i> (<i>pene-</i>)	
3		<i>i-</i> (<i>Ø-</i> ; <i>t-</i>)	
3refl		<i>o-</i>	

Table 8.9: Tapirapé possessive markers (after [Praça 2007: 26](#))

	NON-COREF	COREF
1SG	<i>xe</i>	<i>we-</i> / <i>wex-</i>
1PL.INCL	<i>xane</i>	<i>xere-</i> / <i>xerex-</i>
1PL.EXCL	<i>are</i>	<i>ara-</i> / <i>arax-</i>
2SG	<i>ne</i>	<i>e-</i> / <i>ex-</i>
2PL	<i>pe</i>	<i>pexe-</i> / <i>pexex-</i>
3	<i>i-</i> / <i>Ø-</i> / <i>t-</i> / <i>h-</i>	<i>a-</i> / <i>w-</i>

So similarly to what we observed with switch reference morphemes, reflexive possessor agreement morphemes encode (non-)identity of nominal constituents on a functional head in the nominal complex, presumably D (see further for discussion of the internal

structure of possessed noun phrases). Once again, coreferentiality is encoded not by the form of the arguments themselves, but as a bound, agreement-like morpheme. Reflexive possessor agreement thus appears to fulfill the same function that anaphoric agreement on *v*, reflecting coreference between two co-arguments, or switch reference markers on *C*, reflecting coreference between subjects of two adjacent clauses: nominal anaphoric agreement encodes coreference between the possessor of a noun and the subject of the clause. This parallelism is supported by several properties of reflexive possessor agreement.

First, possessor agreement markers are bound morphemes that occur in agreement-like positions, justifying their consideration as agreement morphemes. In the languages discussed here, they occur immediately affixed to the possessed noun, suggesting they instantiate an inflectional head in the immediately periphery of NP, for instance a D head or a Poss head. At least for Inuit, there is convincing evidence that possessor agreement markers ought to be treated as genuine agreement markers, although this remains, like in the case of Bantu object marking, a matter of ongoing controversy. Evidence that Inuit possessive markers are indeed agreement markers and not pronominal clitics is provided by Compton (2017). For instance, it can be observed that possessive markers are obligatory (a property that we saw with Swahili is characteristic of agreement, cf section 6.1.2), even in the presence of an overt possessor.

- (38) **Jaani-up** ataata-*(ŋa) taku-lauq-tu-q **Alana-up**
 Jaani-ERG father-3SG.SG.ABS see-RPST-DECL.INTR-3SG Alana-ERG
 ani-*(ŋa)-nit.
 brother.3SG.SG-OBL.
 ‘John’s father saw Alana’s brother.’ [Baffin Inuktitut] (Compton 2017:9)

In this example, possessors *Jaani* and *Alana* are overt within the possessive DPs, yet the possessive marker on the possessum remains obligatorily, exactly as in (31) above, where the possessor was covert. Local doubling by a co-indexed argument is characteristic of agreement.

Second, Compton points out that possessive markers are internal to overt case marking on nouns. The oblique case morpheme of the whole DP ‘Alana’s brother’, *-nit*, is suffixed to the possessum/possessor-marking complex. Inuit has a complex and rigid word-internal syntax, where the position of a morpheme in a word corresponds to its position in the syntax (Compton & Pittman 2010; Johns 2007; Yuan 2015). This suggests that the structural position of the possessor marker is internal to the DP itself and not the result of later cliticization.

Finally, Compton (2017) also presents evidence from a regular phonological change in South Baffin Inuktitut which provides a diagnostic in favor of the agreement status of possessive markers, by showing that 1st and 2nd person possessor agreement in this variety have reverted to a default 3rd person form. As seen in chapter 6, ability to revert to a

default form is a characteristic of agreement but not of clitics, whose complete absence is expected in case of agreement failure (Preminger 2009, 2014). The fact that South Baffin Inuktitut is able to resort to default possessor agreement as a repair strategy suggests that possessor marking is in fact agreement (though see Yuan (2015, 2018) and Johns and Kučerová (2017) for opposite views).

To my knowledge, the issue of the agreement vs pronominal clitic of the possessive prefixes has not been taken up for Emerillon or other Tupian languages, and could only be determined by a thorough survey of the languages in question, which is beyond the purpose of this chapter.

Furthermore, as was the case for switch reference, reflexive possessive marking can be shown to be a syntactic phenomenon showing sensitivity to structural properties, and not a purely semantic or pragmatic discourse phenomenon. To begin with, it cannot be used to mark coreference between arguments of two different sentences, as illustrated by the following example from Emerillon, in which the non-reflexive possessor marker *i-* is used in the subject of the second sentence, despite the possessor being coreferent with the subject of the first sentence (which triggers reflexive possessive agreement *o-* in that sentence).

(39) *Emerillon*

- a. [o]-sisig-a-l-ehe o-zebalad₃ pia pia. / [i]-sisig o-pa(g)-katu
 3REFL-sister-*a*-RELN-with 3-play night night 3-sister 3-wake.up-good
 aʔe kōʔem-i-l-ehe...
 DEM tomorrow-*i*-RELN-POSTP
 ‘He_i sleeps with his_i sister every night./The next day, his_i sister wakes up...’
 (Rose 2003: 592)

In Emerillon, the coreference relation is furthermore restricted to the clause. For instance, in the following example, the possessive marker on *tʃam* ‘bed’ can only mark coreference with the subject of the embedded clause (a 3rd person *pro* referring to a little boy in the context), not that of the matrix clause (*eiba* ‘animal’).

- (40) [_{CP} pia o-kel-o [o]-tʃam-a-ʔal-a-nawe], eiba õ-hem bokal-a-wi
 night 3-sleep-CONT 3REFL-bed-*a*-on-*a*-when animal 3-go.out jar-*a*-ABL
 o-ho
 3-go
 ‘At night when he_i sleeps in his_i bed, the animal_j goes out of the jar and leaves.’
 (Rose 2003: 589)

In Inuit, reflexive possessive marking is not strictly local and might span across clausal boundaries within the same sentence (as do reflexives in general in this language). This is illustrated by the following example, where possessor agreement can surface on *nuna*

‘country’ in the embedded clause and can have either the embedded subject (*pro*, referring to Piitaq) or the matrix subject *Hansi* has its antecedent.

(41) *Inuit* [West Greenlandic]

Hansi_i-p uqaatig-aa Piitaq_j [_{CP} *pro*_j
 Hansi-ERG say.about-IND.3SG.3SG Piitaq.ABS
 nuna-**mi**_{i/j}-nut aallar-tuq]
 country.3SGREFL.SG-DAT leave-PART.3SG

‘Hansi_i said about Piitaq_j that he_j was leaving for his_{i/j} country.’ (Bok-Bennema 1991: 157)

However, syntactic constraints still hold. For instance, anaphoric agreement is required to be in the domain of its antecedent, as illustrated by the ungrammaticality of (42b) where the possessor marking occurs on the subject, referring to a c-commanded object antecedent.

- (42) a. **Aalu-p** nulia-**ni** taku-aa
 Aalut-ERG wife-3REFLSG.SG.ABS see-IND.3SG.3SG
 ‘Aalut_i saw his_i wife.’
 b. *nulia-**mi** **Aalut** taku-aa
 wife-3REFLSG.SG.ERG Aalut.ABS see-IND.3SG.3SG
 ‘His_i wife saw Aalut_i.’ [West Greenlandic] (Bok-Bennema 1991: 159)

Another parallel with other types of anaphoric agreement is that reflexive possessor marking also seems to be subject-oriented, at least in the languages under scrutiny here. Rose (2003: 587) notes that the Emerillon reflexive marker *o-* is only used in case of coreference of a possessor with the subject. If a possessor is coreferential with another argument in the sentence, e.g. the object, the non-reflexive marker *i-* is used. In the following example, the non-reflexive *i-* prefix surfaces on the possessed DP *mebil* ‘the young’, despite its possessor being coreferent with the object *pulelukom* ‘the toads’.

(43) *Emerillon*

awak^wəl-a-l-aʔil o-ikiidʒ **pulelukom**-a-wi **i**-mebil elaho kiʔi
 man-a-RELN-son 3-take toad-PL-a-ABL 3-son carry then

‘The little boy takes their_i young from the toads_i and leaves with it.’ (Rose 2003: 587)

Subject-orientation is also a well-known feature of Inuit’s anaphoric possessor agreement. As shown by the contrast between the two following examples, the reflexive marker *-nin* in (44a) is only used in case of coreference of the possessor with the subject, while

its non-reflexive counterpart *-a* is used when the possessor corefers either with the object, or with a DP outside the sentence.

(44) *Inuit* [West Greenlandic]

- a. **Kaali-p** Juuna miiqqa-**nin**-nik uqaluttuup-p-a-a
 Kaali-ERG Juuna.ABS child-3SGREFL.PL-INS tell-IND-TR-3SG.3SG
 ‘Kaali_i told Juuna_j about his_i children.’ (Bittner 1994: 173)
- b. **Hansi** angalanir-**a**-nik apir-aat.
 Hansi.ABS journey-3SG.SG-OBL ask-3PL.SG
 ‘They_i asked Hansi_j about his_{j/k} journey.’ (Bok-Bennema 1991: 159)

In other words, the reference tracking device that is reflexive possessor marking only seems to be sensitive to anaphoricity of the possessor with the subject, but is blind to coreference with other arguments. As argued above for switch-reference, subject orientation is indicative of the fact that anaphoric possessor agreement is sensitive to syntactic factors such as structural height or subjecthood, suggesting that this phenomenon is ruled by syntactic principles. Additionally, it constitutes a common point with *v* and *C* level anaphoric agreement, which are both overwhelmingly subject-oriented reference tracking markers (modulo a few cases of switch reference, namely Yawanawa, Amahuaca or Shipibo).

Another key property of anaphoric agreement, as seen in previous cases, is the morphological φ -invariance of its markers. That is however not a feature of reflexive possessor agreement paradigms, which, as we have seen above, not only consistently fuse information about coreferentiality with person and number φ -features (at least in the sample of languages presented here), but even sometimes rely in part on the regular φ -agreement paradigm, the distinctively anaphoric form being restricted to 3rd person (e.g. in Inuit or Emerillon). The possibility of morphological fusion of anaphoric agreement with φ -agreement should not come as a surprise at this point: as seen in 8.1.3, it is also attested in the domain of switch reference, and is not unexpected given the orthogonality of the φ and [ID]-agreement.⁶

Despite the morphological expression of φ -features on reflexive possessor agreement

⁶One could advance a functional explanation for the reasons behind the particular split in syncretism that sets apart 1st/2nd person from 3rd person. Since a 1st person form always denotes the speaker of the utterance, the use of a 1st person possessive pronominal or agreement marker, regardless of whether it is anaphoric or not, will unambiguously make reference to the speaker: there is only one speaker and thus no need to disambiguate which speaker a given noun belongs to. In contrast, a 3rd person agreement marker or pronominal is to some extent referentially underspecified (there can be several 3rd persons or non-participant entities in an utterance), and it is useful to grammatically indicate whether the possessor is that non-participant that was just mentioned (the subject antecedent) or another non-participant. It can thus reasonably be hypothesized that the particular syncretism split observed in Inuit and Emerillon anaphoric agreement, but also in the Romance pronominal and reflexive paradigms, stems from such economy considerations.

markers, empirical evidence in the form φ -mismatches in cases of partial coreference militates against the hypothesis that φ -features alone can derive such agreement. As was the case with switch reference, anaphoric possessor agreement can surface when the reference of the subject of the clause and the possessor only partially overlap. This is illustrated for Emerillon in (45), where the reference of the subject contains that of the possessor, and for Inuit in (46), where the reference of the subject is contained within that of the possessor.

- (45) o-ho o-iba o-ekal-onj
 3-go 3REFL-animal 3-search-PL.SBJ
 ‘They_{i+j} go look for his_i frog.’ (Rose 2003: 590)
- (46) Hansi-p illo-rtik ilisari=nngila-a
 Hansi-ERG house-3PLREFL.ABS recognize-NEG.IND.TR-3SG.3SG
 ‘Hans_i did not recognize their_{i+j} house.’ [West Greenlandic] (Sadock 2003: 41)

In both cases, it is perfectly licit for the reflexive version of possessor agreement to surface. Once again, a φ -feature approach to such types of agreement does not predict reflexive agreement to be able to occur in cases where the φ -features of both referents do not match: a reflexive argument could neither be bound without φ -matching, nor could anaphoric agreement be derived without φ -matching of such the two agreeing elements, as schematized in (47). In contrast, [ID]-features, which specifically target the reference of nominals, capture such patterns without difficulty, as shown in (48).

- (47) *Predictions of a φ -based approach*
- a. DP₁[3,SG] ... X_[] ... DP₂[3,PL] → mismatch → non-anaphoric marker
 - b. DP₁[3,SG] ... X_[] ... DP₂[3,SG] → match → anaphoric marker
- (48) *Predictions of an [ID]-based approach*
- a. DP₁[i] ... X_[] ... DP₂[j] → mismatch → non-anaphoric marker
 - b. DP₁[i] ... X_[] ... DP₂[i] → match → anaphoric-marker
 - c. DP₁[i] ... X_[] ... DP₂[i,j] → partial match → anaphoric or non-anaphoric marker

In summary, reflexive possessor agreement morphologically marks the (non-)identity of two nominals, the possessor of a noun phrase and the subject of the clause (or of a c-commanding clause in the case of Inuit), on a functional head in the nominal domain. While the exact nature of this head remains to be determined, the possessor morpheme has been shown to be located immediately adjacent to NP, and at least for Inuit to meet the criteria for an analysis as an agreement marker. Possessive anaphoric agreement has been also shown to be a syntactic phenomenon, subject to locality restrictions: it is only licensed within a given clause (Emerillon) or between subordinate clauses (Inuit),

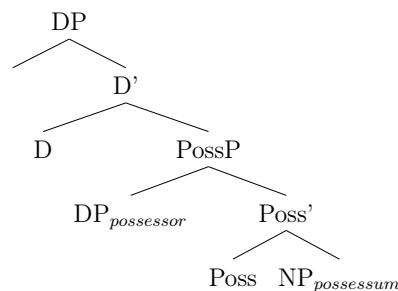
but not in independent clauses, and is sensitive to the syntactic notion of subjecthood, as shown by its strict subject-orientation. Finally, reflexive possessor agreement in the languages introduced here differs from other types of anaphoric agreement in that it is neither morphologically φ -invariant nor fully separate from the φ -paradigm, a property that has been accounted for in SR markers in 8.1.3 and will be discussed further below. In the next section, I show how the analysis developed for v and C level anaphoric agreement can be applied to reflexive possessor agreement.

8.2.2 Reflexive possessor agreement as anaphoric agreement

The previous section has established that there are reasons to think of reflexive possessor marking as agreement, which encodes anaphoricity next to other φ -features but cannot be derived via φ -Agree only, three elements that are the hallmarks of anaphoric agreement as described in previous chapters. In this section, I will show how reflexive possessor agreement can be analyzed using the model that I developed for anaphoric agreement.

I make the following assumptions regarding the internal structure of possessed DPs. First, although, like in the case of switch reference, possessive expressions in the above languages typically do not include an overt possessor next to the agreement marker, I assume that such a possessor exists in the form of a *pro*, and that this little *pro* is a reflexive anaphor. Second, I assume the following structure for DPs (following Alexiadou, Haegeman, and Stavrou 2007; Delsing 1993; Despić 2015; Szabolcsi 1983) in which the possessor DP is generated in the specifier of a Possessor or Possessive phrase (PossP), instead of directly merging in the higher Spec, DP.

(49)



Finally, I take the agreeing head to be D, given the location of possessor agreement morphemes at the periphery of the nominal complex (the only morpheme that seems to occur right of possessor agreement in Inuit is the case suffix of the entire DP, meaning that only a K head could take the DP as its complement). Additionally, in Inuit the agreeing head also reflects the number features of the possessum. If one standardly assumes that D is the head of the nominal phrase (Abney 1987), it is expected that it bears the features of the head noun, via feature percolation of the features of the possessed

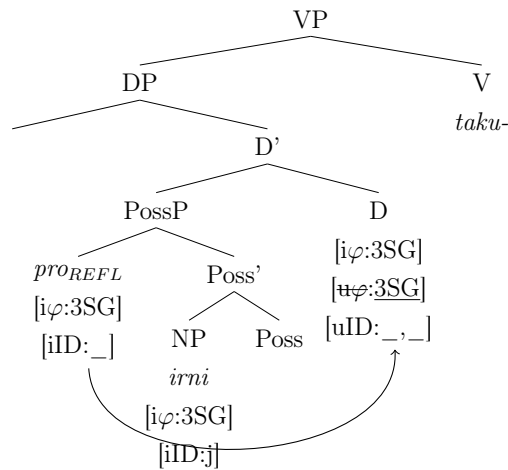
NP to D (these features will be indicated as a set of valued φ -features on D).

Given these assumptions, anaphoric possessor agreement in a structure like (50) below can be derived following the same steps that v and C level anaphoric agreement.

- (50) Anguti-p irni-**ni** taku-j-a-a.
 man-ERG son-3SGREFL.SG.ABS see-PART-TR-3SG.3SG
 ‘The man_i sees his_{i/*j} son.’ (Johns 1996:123)

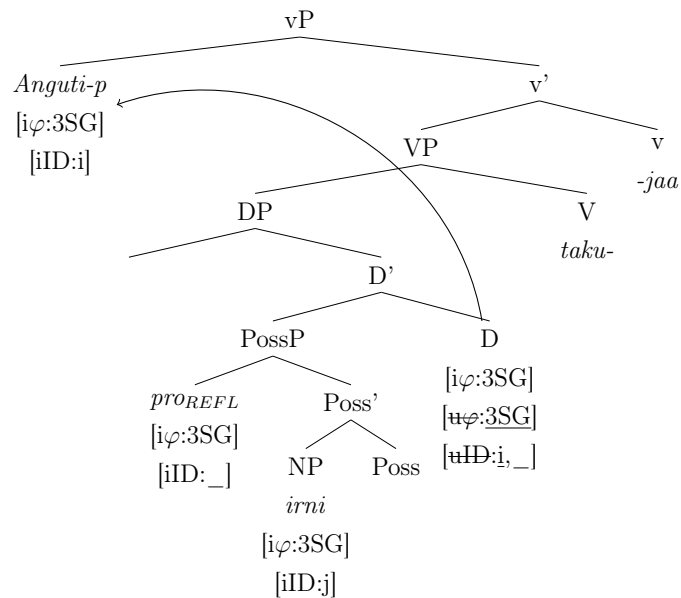
In a first step, the [ID]-feature on the anaphoric possessor probes up and establishes an Agree relation with one of the [ID]-features located on D. Valuation is impossible at that stage, given that D also has unvalued [uID].

- (51) Step 1

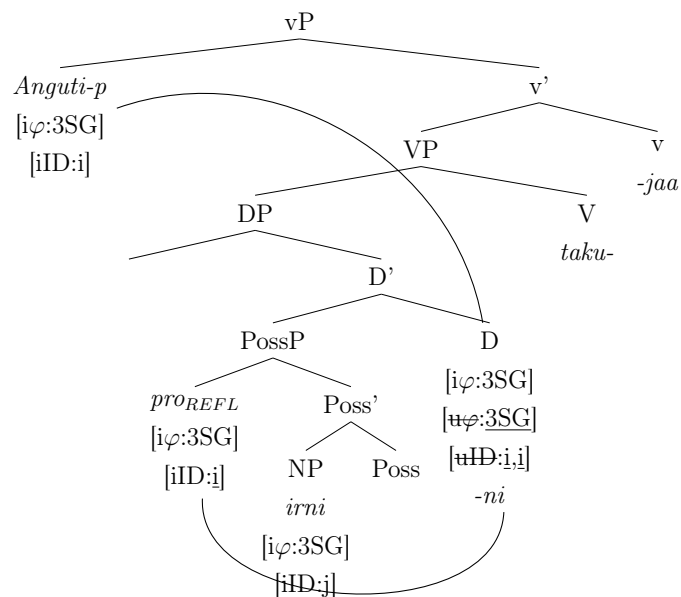


Since in Inuit, information about coreference is φ -covarying (see discussion below), I also represent a φ -probe on D, which gets checked and valued by agreement with the possessor.

In a second step, the subject, bearing a valued [ID]-feature, merges in the specifier of v. D keeps probing upwards for an [ID]-value and agrees with the subject, which checks it [uID] and values one of its slots.

(52) *Step 2*

This results in valuation via feature sharing of all instances of [ID]part of the agreeing chain (i.e. both on D and on the anaphor) and in the following outcome.

(53) *Step 3*

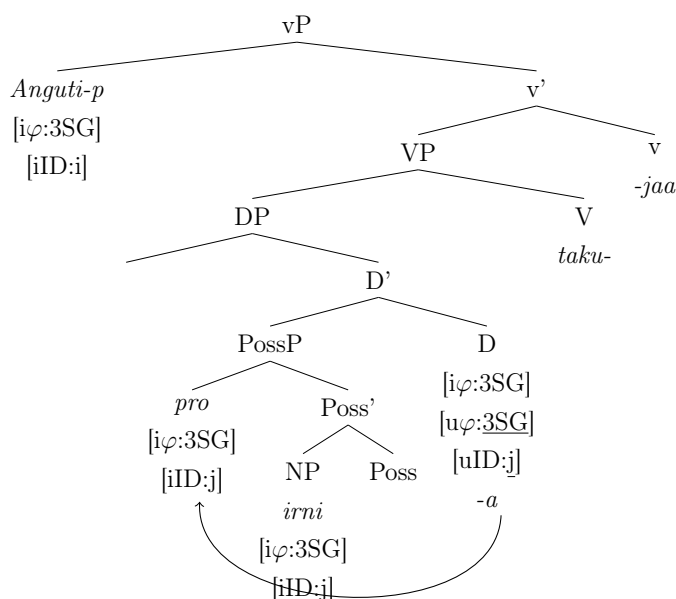
The resulting configuration is the same as what yielded anaphoric agreement on v and on C: a functional head, this time D, mediates the binding relation between the anaphor and its antecedent, and as a result stands in an Agree relation with two interpretable [ID]-feature of matching values.

When the possessor is non-reflexive, it is inherently valued with an index, and therefore no [ID]-agreement with another argument is needed. Only one Agree relationship is estab-

lished, namely between D and the possessor, which Agree (downwards) for φ -features. As stated before in the case of verbal anaphoric agreement or switch reference, even if one assumes that the functional head always bears unvalued [ID]-features (an open possibility), it can simply be valued by the possessor's inherent [ID]-value upon φ -agreement.

(54) *Non-reflexive possessor*

- a. Anguti-p irni-a taku-j-a-a.
 man-ERG son-3SG.SG.ABS see-PART-TR-3SG.3SG
 'The man_i sees his_{*i/j} son.'
 (Johns 1996:123)
- b.



The derivation of possessive anaphoric agreement on D thus parallel that of v and C level anaphoric agreement.

8.2.3 Remaining issue: D as a phase head and the Reuland/Despić generalization

A challenging point raised by the derivations above is the availability of anaphoric binding between a subject antecedent and an anaphor that is syntactically embedded within a larger DP. Recall that binding is conceived as an Agree operation and that Agree is phase-bound. If one construes D as a phase head (as proposed by Adger 2003; Bošković 2005, 2008; Hinzen 2006, 2012; Hinzen and Sheehan 2013; Svenonius 2004 among others), the contents of its complement, including potential anaphoric possessors in PossP, should not be accessible to higher antecedents. This prediction is connected by Reuland (2011) and Despić (2015) to a significant cross-linguistic empirical generalization: dedicated anaphoric forms for possessors are only available in languages that do not employ definite

articles, suggesting that D heads really do create a boundary for binding relations, which can be freely established in their absence. For instance, a language like Italian, which has definite articles (or English, whose possessive marker 's occupies the D position), does not have anaphoric possessors, whereas a language like Hindi, which does not have definite articles, has dedicated anaphoric possessors.

- (55) Giovanni_i legge [il **suo**_{i/j} libro].
 Giovanni reads DET 3SG.POSS book
 Giovanni_i reads his_{i/j} book. *Italian*

- (56) *Hindi*
- a. ram_i-ne [**us-kii**_{*i/j} kitaab] parh-ii
 Ram-ERG 3SG-GEN read-PFV
 'Ram_i read his_{*i/j} book.'
 - b. ram_i-ne [**apnii**_{i/*j} kitaab] parh-ii
 Ram-ERG REFL.GEN book read-PFV
 'Ram_i read his_{i/*j} book.'
- (Bhatia & Poole 2016: 63)

Despić (2015) adds to this a third type of case, namely languages that can encode definiteness postnominally by a suffix on the noun, such as Danish. Following Delsing (1993), Despić (2015) demonstrates that in such languages, despite the presence of a D, anaphoric possessors raise to the edge of the DP, in a position in which they are accessible for antecedents outside the DP (either in Spec,DP, or as adjoined to DP).

- (57) *Danish*
- a. hest-**en**
 horse-DEF
 'the horse'
 - b. John_i læste [**sin**_i/*hans_i artikel].
 John read selfs/his article
 'John_i read his_i article.'
- (Vikner 1985: 23)

If this generalization is correct, there are two ways in which an anaphoric possessor can surface: either there is no D, or there is a D but there is movement of the possessor to the phase edge. The account that I proposed crucially involves a D head, not for definiteness marking purposes in particular, but as the host for possessive inflection. One way to account for the availability of (covert) anaphoric possessors in languages with possessor anaphoric agreement would be to postulate with Despić (2015) movement of the anaphor from Spec,PossP to the DP edge. However, I believe that such an assumption is not necessary, and that an explanation is in fact provided by the function of D as a mediator. Indeed, in the analysis that I propose, binding of anaphoric possessors occurs in two steps: first Agree between the anaphor and D and second Agree between D and the

antecedent. D being the phase head, it functions as a pivot or link between the interior and the exterior of the phase, circumventing phase-locality restrictions on the ban on reflexive possessors. My account therefore adds a third condition to the Reuland/Despić typological generalization on the occurrence of reflexive possessors.

- (58) Dedicated reflexive possessors are available:
- a. in languages that do not employ definite articles (absence of D)
 - b. in languages that employ postnominal definiteness markers (movement of the anaphor to the DP edge)
 - c. in languages that have anaphoric possessor agreement (mediation of the D head in the binding process)

8.3 Final remarks

This chapter has shown that anaphoric agreement is not limited to the predicate or verbal level, where it indexes coreference between an subject and an object, but is also found in two other contexts, namely at the cross-clausal level, where anaphoric agreement is marked on C heads (switch reference) to indicate coreference of the matrix and the embedded subjects, and at the DP-internal level, where it is marked on D heads (reflexive possessor agreement) to indicate coreference of a possessor with the subject of the clause. These phenomena enlarge the empirical scope of anaphoric agreement and offer support for the role of [ID]-features and mediating functional heads in binding. My analysis therefore allows to unify these phenomena which are otherwise seldom, if ever, discussed together. To conclude this chapter, I will address two central questions raised by the extension of the scope of anaphoric agreement, namely the privileged status of phase heads as hosts of anaphoric agreement, and the potential existence of person effects at the C and D levels.

Phase heads as privileged hosts The functional heads that are able to host anaphoric agreement, namely C, v and D correspond to what has been argued to be phase heads. As defined in chapter 2, a phase corresponds to a syntactic domain delimiting cycles of the syntactic derivation. Phase heads such as C, v and D constitute boundaries within a syntactic derivation: when a phase is completed, its complement is assumed to become inaccessible for further operations such as Merge and Agree. Only the head of the phase and its specifier, which acts as an escape hatch, remain accessible for operations into the next phase (under the classic PIC, Chomsky 2001). The pivotal status of phase heads thus makes them privileged candidates to be the loci of a grammatical reference tracking tool such as anaphoric agreement. Concretely, phase heads can ‘stock’ information about the reference of nominals within their phasal domain and make it visible for higher phases. The presence of anaphoric agreement on such heads reflects this linking function. This

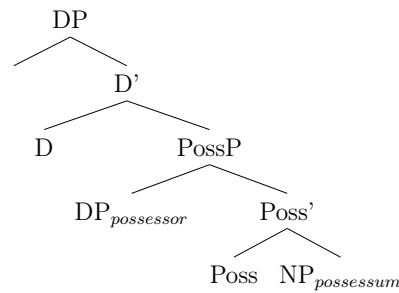
referential function of phase heads and edges is in keeping with ideas that have been proposed in works such as Diercks, van Koppen, and Putnam (2020); Hinzen (2006, 2012); Hinzen and Sheehan (2013); Sheehan and Hinzen (2011), which propose that phase edges are crucial in enabling reference: the richer a phase-edge is, the more referential the phase becomes. Although the status of vPs and DPs as phases has been controversial (Chomsky 2001; Citko 2014; Keine 2017; Van Urk 2015), this chapter at the very least provides support to the idea that C, v and D play a privileged role in mediating referential information between different units of the derivation. This role is particularly meaningful in the case of C and D, whose mediating function allows to circumvent locality restrictions that would otherwise prevent the establishment of a binding relation (respectively binding across a clausal boundary and binding of a DP-internal anaphor). This might be linked with the observation that C and D are, unlike v, the highest nodes of their respective extended projections.

Person effects at the D and C level The second question raised by the existence of C and D level anaphoric agreement is whether intervention effects for reflexive binding or person licensing arise in these domains. Indeed, v heads were argued to act both as mediators for binding relations (hence anaphoric agreement), and as speech act centers, justifying the existence of intervention effects in both person and anaphoric licensing. This chapter has shown that C and D mediate anaphoric binding, thus predicting that any DP intervening between the functional head and the anaphor would intervene for binding. Furthermore, in chapter 4, I also showed that C heads (or their left periphery) had long been argued to be the locus of a speech act center (Speas & Tenny 2003) and discussed, following Gruber (2013), that the same may hold of D heads, since 1st/2nd person strong pronouns, i.e. D-headed pronouns, are self-licensed, suggesting that D hosts a speech act [ID]-feature. This would also predict that a DP intervening between D or C and a 1st/2nd person possessor or embedded subject respectively would create syntactic intervention for person licensing, namely a D or C level person effect.

Starting with the case of potential D-level intervention for person licensing and binding intervention, such effects are in fact not expected to arise given the structure proposed for possessive DPs, repeated below. Indeed, no nominal argument is expected to be able to occur between the agreeing D head and the specifier of PossP which modifies the head/possessed noun. Accordingly, to the best of my knowledge there exist no DP internal person effects.⁷

⁷Although theoretically a possessor in the specifier of PossP could intervene for licensing of a 1st or 2nd person possessee, this situation in fact never arises since 1st and 2nd person cannot be possessed, as this would correspond to something like **John's me*, which is unattested cross-linguistically as far as I know.

(59)



Cases of person effects at the C (or C/T) level on the other hand are well-attested, as discussed already in 4.3.3. While typical PCC effects concern the interaction of two objects in ditransitives, applicatives or causatives, similar interactions arise between objects and subjects in a number of languages, suggesting that the head responsible for licensing is higher than *v*. This is the case in languages with direct-inverse alternations (e.g. in Algonquian languages [Alexiadou and Anagnostopoulou 2006](#); [Béjar and Rezac 2009](#); [Bruening 2001, 2005](#)) or with person-based ergative splits (e.g. Punjabi, [Kaur 2016](#); [Kaur and Raynaud 2019](#) or Lummi, [Alexiadou and Anagnostopoulou 2006](#)). In the accounts mentioned here, the licensing head is identified as T or as a C/T complex. The existence of intervention effects strengthens the claim that C is indeed a person licensing head with a context linking function (as also shown by its ability to license allocutive agreement).

Intervention effects for reflexive licensing via C are a less straightforward question. As already explored in 8.1.3, the model predicts that anaphoric agreement on C cannot surface if an argument intervenes between the anaphor and C – accordingly, the anaphor should always be in the embedded subject position, as an object anaphor would face intervention by the subject. Although this prediction proves true in most languages (recall that SR cross-linguistically tends to be subject-oriented), it is not without exception. Amahuaca, Yawanawa and Shipibo switch-reference markers can track coreference of an embedded object with a matrix subject ([Baker & Souza 2019](#); [Clem 2019](#)); such cases are a challenge for the analysis laid out here.

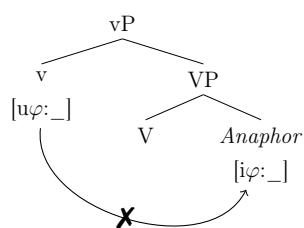
This chapter closes the topic of anaphoric agreement. The next and final chapter comes back to a phenomena that was mentioned in chapter 2 as the strongest argument in favor of φ -based approaches to binding, namely the Anaphor-Agreement Effect, and demonstrates, through a careful examination of the facts, how it is in fact not that problematic for an approach in terms of [ID]-features.

Chapter 9

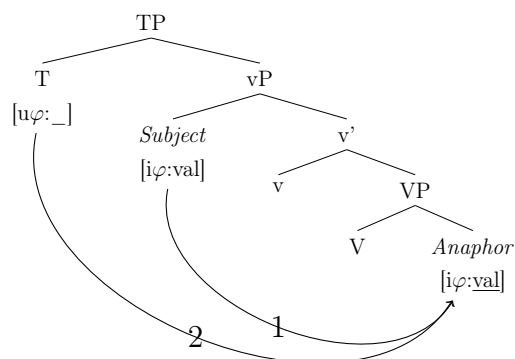
Coming back to the AAE

In chapter 2, I introduced the Anaphor-Agreement Effect (AAE) as the generalization that anaphors seem to avoid positions targeted by φ -feature agreement and that, when they occur in such positions, they do not trigger covarying φ -agreement. Theoretical accounts of the AAE have argued that anaphors are born φ -deficient and have not yet been valued by their antecedent by the time they are targeted by an agreement probe, resulting in failure to control φ -agreement. This holds in languages where the φ -probe, e.g. v , is merged before the antecedent (the subject), as in (1). In contrast, languages in which the anaphor can be valued by its antecedent before being targeted by the φ -probe (e.g. in cases where a high φ -probe like T is merged after the subject) are predicted to violate the AAE, since the anaphor will be able to trigger φ -covarying agreement, as in (2). This view will be referred to as the timing-based analysis (Murugesan 2019; Tucker 2011).

(1)



(2)



Such facts constitute an important piece of evidence for a view of binding as φ -agreement, and do not seem to follow straightforwardly in the account of anaphoricity in terms of referential [ID]-features that I propose. This chapter addresses this question by

closely reexamining the empirical observations at the root of the AAE and reevaluating its scope as a counter-argument for an [ID]-approach.

An overview of the various manifestations of the AAE and the so-called evasion or repair strategies put in place by languages in order to circumvent the restriction was provided in chapter 2 (2.3.1.1). These are summarized in table 9.1 below, which lists all the strategies and languages that have been noted in the literature.¹

Table 9.1: ‘Evasion’ strategies for the AAE

No nominative anaphors	Italian Icelandic	Rizzi (1990a) Rizzi (1990a)
Default agreement	Albanian Georgian Shona	Woolford (1999) Woolford (1999) Murugesan (2019); Storoshenko (2016)
Agreement switch	Kutchi-Gujarati Tamil	Patel-Grosz (2014); Murugesan and Raynaud (to appear) Sundaresan (2014)
Anaphoric agreement	Swahili	Woolford (1999)
Oblique case marking	Inuktitut Hindi Punjabi	Yuan (2018) Murugesan (2019)
Detransitivization	Nez Perce	Deal (2010); Tucker (2011)
Complex possessed anaphors	Greek Selayereese Hungarian Basque	Woolford (1999) Woolford (1999) Räkosi (2019) Preminger (2019a)

This chapter shows that not all the patterns cited as manifestations of the AAE can actually be taken as evidence for this phenomenon and that some others are better accounted for by other mechanisms, drastically reducing the empirical support in favor of the AAE, and hence its weight as evidence for φ -approaches of binding. In particular, I show that the strategies listed in this table are to be split in four main groups. First, in 9.1, I argue that three of the alleged AAE-repair strategies are in fact none other than natural consequences of the nature of the reflexivization strategy existing in the language, namely detransitivization, complex possessed anaphors and agreement switch

¹I abstract away from the putative manifestation of a DP-internal AAE described in Haegeman (2004) regarding the behavior of possessive anaphors in West Flemish, given (i) that the empirical findings of Haegeman are only partially conclusive (ii) the fact that it focusses on reciprocal anaphors and DP-internal effects, two elements that lie on the margins of what is currently known about the AAE.

in cases of perspectival binding. Second, in 9.2, I show that a close examination of the three languages reported to have default agreement by Woolford (1999) (Georgian and Albanian) and Murugesan (2019) (Shona) in fact leads to their reclassification into other strategies, obviating default agreement as an AAE-repair strategy. Having already reduced the empirical scope of the AAE, in 9.3 I argue that at least one type of repair strategy, left unaccounted for by Murugesan's timing-based approach, can be accounted for by a licensing mechanism based on [ID]-features. In 9.4, I show that while it is tempting to account for the absence of nominative anaphors in Icelandic and Italian in similar terms, the facts actually do not support such an analysis, and I tentatively propose that Maling's (1984) functional explanation for a nominative gap best accounts for these patterns. Finally, in 9.5 I draw the conclusions of these findings for the AAE and φ -deficiency views of binding.

9.1 Independent effects due to the nature of the reflexivization strategies

In this section, I argue that three of the alleged repair strategies listed in table 9.1 above, detransitivization, complex embedded anaphors and agreement switch in cases of perspectival binding (such as found in Tamil), are naturally-occurring types of reflexivization strategies, whose reflexes in terms of agreement are expected effects of their internal syntax and hence fully independent of the AAE. They thus do not constitute evidence for the existence of the AAE nor for φ -based approaches to binding. Anaphors in these types of languages only trivially obey the AAE, but the AAE cannot be construed as the cause or the explanation for their behavior, as the notion of 'repair strategy' would seem to suggest.

9.1.1 Detransitivizing reflexives

The use of a non-active voice corresponding to a syntactically intransitive construction is a common reflexivization strategy in the world's languages. This is for instance the strategy employed in Plains Cree (Algonquian, Déchaine and Wiltschko 2012, 2017), in Nez Perce (discussed in 7.4, Deal 2010), in some varieties of Basque (Ortiz De Urbina 1989) or as I will argue below, in Albanian. This is illustrated with an example of the valency-reducing reflexive suffix *-iso-* in Plains Cree in (3b), contrasting with a corresponding transitive sentence in (3a).

- (3) a. ê-wâpam-a -yâhk -ik
 C-see-TR.DIR -1PL -3PL
 'We see them.'

- b. ê-wâpam-**iso** -yâhk
 C-see-REFL -1PL
 ‘We see ourselves.’ (Déchaine & Wiltschko 2012: 20)

As can be observed from this minimal pair, Déchaine and Wiltschko (2012, 2017) note that a characteristic of such detransitivizing reflexive markers is that they occupy a position distinct from agreement markers, but which parallels that of other valency-affecting markers. In (3b), the suffix *-iso* occupies an immediately post-verbal slot which parallels that of the transitive direct marker *-a* (boldfaced) but is distinct from the φ -agreement slots (italicized). Detransitivizing reflexive markers are also typically φ -invariant, coherently with their non-agreement status, as shown in the following examples:

- (4) *Plains Cree*
- a. ê-wâpam-**iso** -yân
 C-see-REFL -1SG
 ‘I see myself.’
- b. ê-wâpam-**iso** -cik
 C-see-REFL -3PL
 ‘They see themselves.’ (Déchaine & Wiltschko 2012: 21)

As expected of intransitive constructions, in such types of reflexives the agreement surfacing on the verb only indexes the features of one argument, the subject, as seen in (3b), in contrast with transitive sentences like (3a) in which both subject and object are indexed.

In western dialects of Basque, Ortiz De Urbina (1989: 36-39, 188-199) reports that a reflexive meaning can be conveyed by an intransitive construction, which makes use of the intransitive auxiliary (*izan*), which agrees with the only argument, the absolutive 1st person singular *pro* subject.

- (5) *Basque (western varieties)*
- Ispiluan ikusi **naiz**.
 mirror.LOC see AUX.INTR.ABS1SG
 ‘I saw myself in the mirror.’ (Hualde & Ortiz de Urbina 2011: 160)

Languages like Basque differ from Plains Cree or Nez Perce in not having a specific reflexive valency-morpheme, but they simply make use of an existing intransitive form of the language. In Basque, these constructions are homophonous with the passive and the example above can also mean ‘I am seen in the mirror’. Homophony with other non-active voices is a recurrent feature of intransitive reflexives (see also discussion of Albanian below).²

²Although we saw in 5.3.3 that homophony between voices in general is very common, regardless of

Finally, a last hallmark of valency-reducing reflexives according to Deal (2010); Déchaine and Wiltschko (2012, 2017); Reinhart and Siloni (2004) is that they are allowed in nominalizations.

- (6) a. 'ipnée-ku-t'es
3SG.REFL-get.water-PART
'cup, mug' Nez Perce (Deal 2010: 116)
- b. kitimah-iso-win
ruin-REFL-3PL
the act of treating ones self poorly Plains Cree (Déchaine & Wiltschko 2012: 21)

Some of these diagnostics have been used in previous chapters to distinguish anaphoric agreement from intransitive reflexive marking for instance. Like was the case with anaphoric agreement, such diagnostics cannot be used in isolation and only a cluster of properties can help diagnose the nature of the reflexivization strategy (e.g. detransitivizing reflexive marking like anaphoric agreement is typically φ -invariant, but they differ in other respects, such as their morphological slot or the possibility to occur in nominalizations).

Detransitivization is thus a common reflexivization strategy, independently attested and well-diagnosed in the world's languages. Indeed, the semantic mechanisms behind reflexivity make intransitive predicates a natural way to express reflexivity, and arity-reducing semantics are among the most common semantics proposed for reflexives (cf discussion of Romance reflexives in 5.2). Furthermore, Algonquian languages like Plains Cree are usually argued to have a high φ -probe in T (Alexiadou & Anagnostopoulou 2006; Bruening 2001, 2005; Déchaine & Wiltschko 2014). Given the predictions of the timing-based approach, it is unclear why Plains Cree would have to deploy detransitivization as a repair-strategy, as its structure would correspond to (2) above, in which anaphors can be φ -valued by their antecedent in time to trigger φ -agreement on T, yielding absence of any AAE. Given this, detransitivization of reflexive predicates simply appears as a naturally-occurring way to grammaticalize reflexivity, and not as a repair-strategy from a constraint like the AAE. Intransitive reflexives trivially obey the AAE: they contain no anaphoric argument, therefore no opportunity to agree with it. Given their internal structure, their behavior is fully expected. Languages with intransitive reflexives thus do not offer empirical support for the AAE.

9.1.2 Complex possessed anaphors

Another alleged evasion mechanism which is in fact independent of the AAE are complex possessed anaphors or body-part anaphors. While some anaphors have the structure of their transitivity status (Schäfer 2017).

a weak pronoun (recall the analysis of French *se* above), others have a more complex structure, as already captured by Reinhart and Reuland's (1993) dichotomy between SE anaphors and SELF anaphors (2.1.3). A cross-linguistically common way to form reflexive anaphors is to use a complex noun phrase, composed of a possessive pronoun and a head noun often meaning 'body', 'head' or another body part. This is for instance the case in Greek (exemplified in 2.3.1.1, Woolford 1999), Selayereze (Woolford 1999), Hungarian (Rákosi 2019), Basque (Preminger 2019a) and as I will add below Georgian (Amiridze 2003).

Basque reflexives, for instance, are formed by combining a personal pronoun in the genitive case with *buru* 'head' and the definite article *-a*. For instance, the equivalent of *myself* is *neure burua*, literally 'my head', as shown in (7).

- (7) Ni-k neure buru-a ikusten n-u-en.
 1SG-ERG 1SG.GEN head-ABS seeing ERG1SG.ABS3SG-AUX-PST
 'I saw myself.' (Béjar & Rezac 2009:37)

Basque has subject and object agreement in person and number, which surfaces on the auxiliary and which can agree with ergative, absolutive or dative arguments. As shown by the examples below, reflexives do occur in object agreement triggering positions, but the agreement triggered by the anaphor on the auxiliary is invariably 3rd singular. In (8a), the verb agrees with the absolutive anaphor for 3rd singular (note the ungrammaticality of 3rd plural). The same happens in (8b) where the verb agrees with the dative inflected reflexive.

- (8) a. Ispiluan ikusi d(*it)u-gu geure buru-a.
 mirror.LOC see ABS3SG(*PL).AUX-ERG1PL 1PL.GEN head-ABS
 'We saw ourselves in the mirror.' (Hualde & Ortiz de Urbina 2011:159)
 b. Gure buru-ari min egiten diogu.
 1PL.GEN head-DAT harm do AUX.ABS3SG.DAT3SG-ERG1PL
 'We hurt ourselves.' (Lit: 'We did harm to ourselves.') (Norantz Proiektua datu-basea 2009)

The same patterns arise in Hungarian, whose anaphor *maga* (deriving from the word for 'body') inflects with the person and number features of the possessors, as in the following examples.

- (9) Hungarian
 a. A gyerek_i látta mag-át_i a tükörben.
 the child.NOM see.3SG.PST.DEF REFL-3SG.POSS.ACC the mirror.in
 'The child saw himself in the mirror.'
 b. pro_i láttam mag-am-at_i a tükörben.
 see.1SG.PST REFL-1SG.POSS-ACC the mirror.in

‘I saw myself in the mirror.’

(Törkenczy 1997: 50)

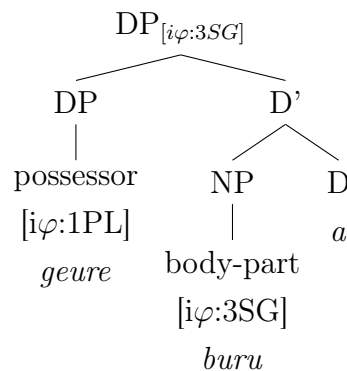
Although no longer etymologically transparent, Rákosi (2019) argues that *maga* is historically a body-part reflexive with a possessive structure that is still grammatically active (see Rákosi 2019:fn.2 for references in that sense). Hungarian *maga* does not trigger φ -covarying possessor agreement on a possessed noun, as illustrated by the following contrast. In (10), a 1st person singular pronominal possessor triggers 1st person singular agreement on the possessum, while in (10), a 1st person plural reflexive anaphor triggers 3rd person singular default agreement.

- (10)
- a. az (én) ágy-**am**
 the 1SG bed-1SG.POSS
 ‘my bed’
- b. a(z) **mag-unk** baj-**a**
 the REFL-1PL.POSS problem-3SG.POSS
 ‘our own problem’

(Rákosi 2019: 603)

While at first sight it seems that anaphors in those languages can only trigger default agreement as a result from the AAE, such effects actually straightforwardly follow from the internal structure of these complex anaphors, whose structure is that of a possessed noun, as schematized below.

- (11)
- a. geure buru-a
 1PL.GEN head-ART
 ‘ourselves’
- b.



The head noun being a 3rd person singular noun, the encapsulating DP is expected to bear 3rd person singular features via percolation. The possessive pronoun or possessed DP sits in the specifier of that DP, and is thus embedded into it: its features are not visible for φ -probes, and therefore are not expected to be agreed with.³

³This structure is that of possessive DPs with internal possessors, and different results could actually be expected in the case of languages with external possessors, such as Inuktitut (chapter 8).

Further evidence for this structure comes from Basque, in some dialects and in diachronic varieties of which a plural *-k* is added to the head of plural reflexives. In this case, the verb agrees and displays 3rd person plural object agreement, showing that agreement covaries with the number features of the head noun (incidentally, an AAE violation).

- (12) pro_i **zeuen** **buru-ak** saldu
 2PL.ERG 2PL.GEN head-PL.ABS sold
 ditu-zue/**du-zue*
 3PL.ABS.AUX-2PL.ERG/**3SG.ABS.AUX-2PL.ERG*
 ‘Y’ all given yourselves away’ (Murugesan 2019: 166)

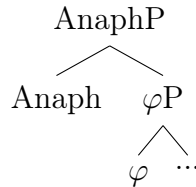
One could wonder whether one should conceive the anaphor as the entire DP or only as the embedded head noun or the possessive pronoun. Several arguments militate against the possessive pronoun itself being the bound anaphor in the cases above. Preminger (2019a) stresses that the form of the possessor is pronominal and not anaphoric. Additionally, assuming that binding is Agree and thus subject to c-command constraints, an antecedent could not c-command the embedded internal possessor and thus not bind it (although see discussion in 8.2.3). If the embedded head noun itself is the anaphor, then it arguably projects its anaphoric properties along with its features at the DP level, as in the tree diagram above.

Regardless of what is the ‘true’ anaphor for the purpose of binding as Agree, the fact remains that given their structure, these anaphors are not expected to share anything but the features of the head noun, i.e. 3rd person singular features (in most cases). It is unrealistic to assume that the very form of these anaphors, and hence their syntactic structure, would arise as repair-strategies that have emerged to protect them from constraints like the AAE. Instead, it is clear that they have come about through the common place grammaticalization of body-part expressions. Being possessed noun phrases, the inherent structure of these anaphors make it so that they can only ever trigger 3rd person agreement, like all other possessed noun phrases. The pattern of complex reflexives can thus not be taken as a manifestation of the AAE, but only stems from the historical development of reflexive anaphors and from independent facts about the structure of complex noun phrases. This conclusion is reinforced by the observation, made by Preminger (2019a), that given the location of the agreeing probe for absolutive arguments in Basque, namely T (Arregi & Nevins 2012), anaphoric absolutive objects would actually not be expected to violate the AAE, as their subject antecedent would merge before φ -Agree with T takes place (on the model of (2)). Therefore there is no reason why these anaphors would even need to deploy a repair strategy.

As a final note, what is argued here relates to Preminger’s (2019a) recent proposal about anaphoric encapsulation, for which he argues primarily on the basis of Basque

data. Preminger (2019a) proposes that all anaphors are encapsulated in an AnaphP layer, shielding them from potential agreement, i.e. from the AAE, and that Basque-like anaphors are a morphologically transparent instantiation of this structure.

(13)



However, my argument here differs from his in important aspects. First, I do not assume an extra anaphoric layer (AnaphP) specific to anaphors, but simply rely on the internal syntax of possessed nouns (although in the case of Basque, Preminger does equate AnaphP with DP). Second, I do not assume that this structure is universal – in fact I explicitly argue the reverse, as spelled out in detail in 4.3.2, namely that some anaphors, of the French or Swahili type, are weak pronouns, i.e. bare φ Ps lacking a DP. If, as I am attempting to argue here, the AAE in languages like Basque is only epiphenomenal, it is vacuous to postulate such a structure whose aim is to protect anaphors for AAE-purposes without an independent motivation.

9.1.3 Perspectival anaphors and indexical shift

Finally, Tamil has been classified as a language obeying the AAE, by not showing direct agreement with anaphor *taan* in long-distance binding contexts, but instead switching to a different agreement target, namely a *pro* antecedent in the left periphery of the embedded clause (Selvanathan & Kim 2008; Sundaresan 2014; Woolford 1999). In this section, I show that there are grounds to think of the Tamil agreement switch as an independent effect resulting from the perspectival nature of the anaphor and the possibility of indexical shift rather than from an obligatory AAE effect.

Tamil is a subject agreement language, and has a long-distance anaphor *taan*, which can occur as the nominative subject of an embedded clause (an agreement triggering position) and have the subject of the main clause as its antecedent. However, in the following example, nominative *taan* does not trigger φ -covarying 3rd person agreement, but instead 1st person singular agreement surfaces on the agreeing embedded verb.

- (14) Murukeesan_i [_{CP} **taan**_{i/*j} var-**een**-nnũ] so-nn-aarũ.
 Murugesan.NOM SELF.NOM come.PRS-1SG-COMP say-PST-3MSG
 ‘Murugesan_i said [that he_{i/*j} would come].’ (Sundaresan 2014: 506)

Sundaresan (2012, 2014) argues that 1st person agreement comes about as a result of an

indexical shift. As already sketched in previous sections, *taan* is a perspectival anaphor, whose perspectival properties are derived by agreement with a *pro* located in PerspP in the left periphery of the embedded clause.

- (15) Subject ... [CP [PerspP *pro*_{[DEP:i],[φ:1MSG]} ... *taan*_{[DEP:],[φ:]} T_[φ:]]]

This *pro* instantiates the attitude holder corresponding to the subject of the matrix speech verb, and thus can bear 1st person features due to a shift in the context of evaluation, triggering a shift of the features of indexicals. By agreeing with *pro*, both *taan* and the φ -probe in T thus inherit its 1st person singular φ -features, resulting in a sentences like (14) above. This data leads Sundaresan (2014) to argue that *taan*, by switching its agreement target, does not violate the AAE since the agreement triggered is not φ -covarying.

However, more can be said about the case of Tamil. First of all, indexical shift (i.e. 1st person agreement with a 3rd person anaphor) is not obligatory in embedded clauses. As noted already by Selvanathan and Kim (2008) and Sundaresan (2014), the verb can also exhibit 3rd person, φ -covarying agreement with nominative *taan*, under both thought-predicates (such as *think* or *believe*, which never license indexical shift in Tamil) and speech-predicates (which can). This was further confirmed by fieldwork conducted in August 2018 on different varieties of Tamil.⁴ On a total of 12 informants, 9 could optionally use either 1st or 3rd person agreement in a case of embedding under a speech-predicate.

- (16) a. Maya_i [CP **taan**_{i/*j} pootti-læ dzejkkapoo-r-aal]-ünnü]
 Maya.NOM SELF.NOM contest-LOC win-PRS-3FSG-COMP
 nam-in-aal].
 believe-PST-3FSG
 ‘Maya_i believed that she_{i/*j} would win the contest.’ (Sundaresan 2012: 209)
- b. [CP **taan**_{i/*j} varugir-aal/*-aan enru] Mala_i conn-aal.
 SELF.NOM come-3FSG/3MSG COMP Mala say-3FSG
 ‘Mala_i said she_{i/*j} is coming.’ (Selvanathan & Kim 2008: 15)

No indexical shift is going on in these sentences, and agreement seems to track the features of *taan*, i.e. the same as those of its antecedent. For Sundaresan (2012, 2014), the mere availability of agreement switch under speech-predicates and more generally the perspectival properties of *taan* are indicative of the fact that it is always bound by a *pro* in Spec,PerspP, and thus that *taan* itself never controls agreement, including in cases where the agreement is 3rd person (i.e. in the absence of indexical shift). If this is true, then Tamil *taan* can be said to trivially obey the AAE.

⁴This fieldwork was conducted on varieties spoken in Vallakondanpura, Pollachi and Thenur (Tamil Nadu, India), together with Sandhya Sundaresan, Gurujegan Murugesan and Thomas McFadden

However, this does not imply that agreement with a perspectival *pro* is a repair strategy: the perspectival nature of *taan* imposes syntactic requirements on its binding, making it so that agreement must come from another source in order to make it perspectival. Under this view then, the effects observed in Tamil only naturally follow from the perspectival nature of its anaphors rather than as a consequence of the AAE. The availability of perspectival binders and indexical shift are incidentally attested in many other languages as independent phenomena, see e.g. Amharic (Schlenker 2003), Zazaki (Anand & Nevins 2004), Uyghur (Shklovsky & Sudo 2013) and recent work by Charnavel (2019).

That being said, one could argue that while Tamil does indeed switch the agreement target when there is visible indexical shift (i.e. 1st person agreement), *taan* is in fact the real agreement goal in cases where 3rd person covarying agreement shows up on the verb. Two observations support this hypothesis. First, *taan* can also function as a local anaphor, where as argued by Murugesan (2019) it triggers co-varying agreement with no possibility of indexical shift. This can be observed in dative-nominative constructions, where the subject bears dative case, which is generally inaccessible for agreement in Tamil. This is illustrated in the following example, with a dative subject and an accusative object, where the verb can only show the default 3rd singular neuter agreement marker, due to the fact that both dative and accusative case are not suitable goals.

- (17) Kohli-ukku Meena.v-ai pidi-t-**atu**/*-aan/*-aal
 Kohli-DAT Meena-ACC like-PST-3SGN/*-3SGM/*-3SGF
 ‘Kohli liked Meena.’ (Murugesan 2019: 19)

Coming back to dative-nominative constructions, the subject is dative, but the verb can agree with the nominative object, as illustrated in (18a) where it agrees with feminine singular *Meena*. In (18b), which has an anaphor *taan* as object, and dative *Meena* as subject, the verb exhibits 3rd person feminine singular agreement. Given that the dative subject is not a suitable agreement goal, the features reflected on the verb unambiguously come from the nominative anaphor.

- (18) a. Kohli_i-ukku **Meena**_j kidai-t-**aal**.
 Kohli-DAT Meena.NOM get-PST-3FSG
 ‘Kohli_i got Meena_j.’
 b. Meena_i-ukku **taan**_{i/*j} kidai-t-**aal**.
 Meena-DAT SELF.NOM get-PST-3FSG
 ‘Meena_i got herself_{i/*j} back again.’ (Murugesan 2019: 79-80)

If *taan* may trigger φ -covarying agreement in local contexts, one can reasonably assume that it can too in long-distance contexts. One objection to this, albeit not a particularly theoretically economic one, could be that there are in fact two different *taans*, a non-perspectival one used in local-contexts and a perspectival one used in logophoric/long-

distance contexts (see [Murugesan 2019](#) for such a treatment).⁵

Perhaps a stronger argument in favor of *taan* being the real agreement controller in some cases is what happens when *taan* bears an oblique case. In the following example, *taan* is in the dative case by virtue of being the subject of a verb taking a quirky dative subject.

- (19) Raman_i [_{CP} **tan**_{i/*j}-**akkū** romba pasi-tt-**ad**/*pasi-ch-**een**
 Raman self-DAT very.much hunger-PST-3NSG/*hunger-PST-1SG
 -ūnnū] namb-in-aan.
 -COMP believe-PST-3MSG
 ‘Raman_i believed that he_{i/*j} was very hungry.’ (adapted from [Sundaresan 2014](#): 508)

As can be observed, the verb shows 3rd person singular neuter agreement, i.e. the default agreement marker that surfaces in cases of agreement with oblique arguments (either because an elsewhere affix is inserted due to agreement failure, or because oblique arguments themselves bear 3rd person neuter features). This suggests that it is *taan* itself which is the goal of φ -agreement, and not a perspectival *pro* antecedent (unless one assumes that the case of perspectival *pro* covaries with that of the embedded subject).

If, as these elements suggest, *taan* is the true controller of agreement in the absence of visible indexical shift, then Tamil would in fact violate the AAE in those cases, definitively cancelling its support in favor of the AAE. Note that [Murugesan](#)’s timing-based approach would not be able to account for subject *taan* controlling the φ -agreement in long-distance contexts, as the probe in T would arguably merge earlier than the antecedent *pro* in Spec,PerspP, predicting failure of agreement or the use of a repair, contrary to facts.

The conclusion about Tamil is then two-fold. First, the agreement shift strategy observed in Tamil does not necessarily come about as a result of the AAE, but rather is a consequence of the fact that the long-distance anaphor *taan* is perspectival and therefore must be bound by an argument located in PerspP, thus optionally triggering indexical shift. Second, in cases where there is no indexical shift, the question arises of whether *taan* might in fact be the real controller of agreement, in which case Tamil would violate the AAE, in a way that is not predicted by [Murugesan](#)’s (2019) theory. Even by making abstraction of this second point, the agreement switch observed in Tamil thus does not constitute unrefutable proof of the AAE, and is independently accounted for.

Summing up, this first section has demonstrated that three types of patterns that have been labelled as AAE repair strategies and used as evidence for its existence are in

⁵Another argument against *taan* as the real trigger of agreement in long-distance contexts is that it is morphologically φ -invariant and hence cannot be taken to bear number or gender features that show up of the verb ([Sundaresan 2014](#)). However, the morphological absence of features does not forejudge of their syntactic presence, and *taan* could simply be taken to be a case of number and gender syncretism.

fact the result of independently motivated reflexivization strategies. Detransitivization was shown to be a common reflexivization strategy, attested outside of AAE contexts, while the structure of complex possessed anaphors was argued to yield 3rd person singular argument as an expected result of its internal syntax. Agreement switch in Tamil was shown to be a consequence of the perspectival nature of its anaphors, occurring only optionally and in certain contexts. I therefore conclude that these three types of strategies should not be seen as evidence for the existence of the AAE and consequently for φ -based approaches to binding (such as that proposed by Murugesan 2019).

9.2 Reclassification of default agreement languages

Continuing the close examination of the patterns that have been cited to form the empirical base of the AAE, this section considers three cases that are recorded as instances of repair default agreement. I first address the case of Albanian reflexives, as considered in Woolford (1999), and show that they are really intransitive constructions. I then consider Georgian (also reported in Woolford 1999) and argue that its anaphors are complex possessed structure of the Basque-type, following Amiridze (2003). The conclusions drawn above regarding the independent nature of these strategies are then taken to apply to these two cases. Finally, I consider the case of Shona, argued by Murugesan (2019) to be an instantiation of a default agreement strategy, based on Storoshenko (2016). Putting the Shona data in light of cross-linguistic and diachronic evidence, I suggest that there are grounds to think of the Shona reflexive marking as anaphoric agreement of the Swahili kind rather than default agreement. These three languages are thus reclassified into other strategies and concluded to not be conclusive evidence for the AAE.

9.2.1 Albanian: intransitives

Woolford (1999), and many after her, cite Albanian as a language displaying default agreement with its anaphors. Yet, a closer investigation of Albanian leads to the conclusion that the examples provided in Woolford (1999) are in fact not instances of default agreement with an object anaphor, but rather non-active, intransitive sentences. Indeed, one of the possible reflexivization strategies in Albanian is the use of a non-active voice, corresponding to the mediopassive form (Massey 2000; Newmark & Prifti 1982).

- (20) Agimi godit-e-t.
 Agim-NOM hit-NACT.PRS-3SG
 ‘Agim is hit (by someone else).’
 OR ‘Agim hits himself’ (Massey 2000: 159)

As shown by this example, such non-active forms are ambiguous between a mediopassive

reading and a reflexive one. The examples cited in Woolford (1999) are in this mediopassive/reflexive voice, as can be seen by the non-active glossing.

- (21) a. Dritës i dhimset vetja.
 Drita.DAT CL.3SG.DAT pity.3SG.PRS.NACT self.NOM
 ‘Drita pities herself.’ (Massey 1990:135 in Woolford 1999: 270)
- b. Vetja më dhimset.
 self.NOM CL.1SG.DAT pity.3SG.PRS.NACT
 ‘I pity myself.’ (Hubbard 1985:91 in Woolford 1999: 271)

These examples only differ from the one above in that the verb selects a dative subject experiencer, instead of a nominative one. It is explicitly noted by Hubbard (1985) that the verb *dhimset* ‘feel sorry for’ has no active counterpart: there is thus no doubt that these are intransitive constructions. In line with the considerations put forth about intransitive reflexive constructions earlier, the anaphor *vetja* is thus not argumental here, but rather functions as an intensifying modifier; it accordingly does not trigger agreement. The 3rd person agreement on the verb is arguably default subject agreement, as datives are not accessible goals for agreement in this language. Albanian thus does not offer an example of default agreement with an anaphor. Note that, next to intransitive reflexives, Albanian does have an active/transitive reflexivization strategy, exemplified in (22).

- (22) Agimi pa veten në pasqyrë
 Agim.NOM see.3SG.PST.ACT self.ACC in mirror
 ‘Agim saw himself in the mirror.’ (Hubbard 1983: 64)

However, as reflexives cannot occur as subjects in active sentences (Hubbard 1983) and Albanian only has subject agreement, no manifestation of the AAE is expected to be observable, and thus Albanian does not provide any evidence for the existence of the AAE.

9.2.2 Georgian: complex possessed anaphors

Another example of alleged default agreement with anaphors given by Woolford (1999) is Georgian. However, the behavior of Georgian anaphors can be shown not to be a case of default agreement. Following Amiridze (2003), I show that Georgian anaphors are better analyzed as instances of embedded or complex anaphors, which explains why they always trigger 3rd person singular agreement (see also Preminger 2019a).

Anaphors in Georgian are built, like other complex anaphors, by the combination of a possessive pronoun, which varies with the features of the antecedent, and the noun *tav* ‘head’. This is illustrated for 3rd person singular below, where the 3rd person possessive pronoun takes a reflexive form.

- (23) is **tavis** **tav-s** akebs.
 he.NOM 3REFL.POSS.DAT head-DAT praise.3SG.3SG
 ‘He praises himself.’ (Amiridze 2003: 7)

Woolford (1999) observes that regardless of the person of the antecedent and the anaphor, object agreement on the verb remains constant: 3rd person singular.

- (24) a. (me) **čem-s** **tav-s** vakeb.
 I.NOM 1SG.POSS-DAT head-DAT praise.1SG.3SG
 ‘I praise myself.’
 b. **šen** **šen-s** **tav-s** akeb.
 you.NOM 2SG.POSS-DAT head-DAT praise.2SG.3SG
 ‘You praise yourself.’ (Harris 1981: 27)

This is straightforwardly explained if one acknowledges the complex morphological structure of the Georgian anaphor, namely a possessed noun phrase headed by the 3rd person singular noun *tav* ‘head’ and modified by a possessive pronoun located in the specifier of DP/PossP. Accordingly, the features that are visible on the DP for agreement are those of the head, namely 3rd person singular.

In support of this, Amiridze (2003) shows that when the noun phrase ‘your head’ is used in a non-reflexive, literal sense, the same 3rd person singular object agreement surfaces on the verb, contrary to what we would expect if 3rd person singular agreement was a repair strategy used with anaphoric objects only. Instead, this fact is consistent with the agreement that a possessed noun phrase headed by the 3rd person singular noun *tav* ‘head’ would trigger.

- (25) (me) sark’e-ši **šen-s** **tav-s** vxedav, t’an-s k’i-vera.
 I.NOM mirror-in 2SG.POSS-DAT head-DAT see.1SG.3SG body-DAT but-cannot
 ‘I see your head in the mirror, but I cannot see the body.’ (Amiridze 2003: 7)

Georgian is thus not an instance of default agreement as a repair strategy for the AAE, but rather a simple case of complex anaphor, falling under the considerations described in the previous section for such anaphors.

9.2.3 Shona: anaphoric agreement?

The last case of reported default agreement is Shona. Shona is a Bantu language that has a verbal reflexive marker *-zvi-*, as the following example illustrates.

- (26) John a-ka-**zvi**-pis-a.
 1John SM1-PST-RFM-burn-FV
 ‘John burned himself.’ (Storoshenko 2016: 147)

Shona reflexives are very similar to Swahili reflexives: the *-zvi-* marker is φ -invariant

and can be shown to be object agreement (Storoshenko 2016). However, *-zvi-* is also homophonous with the class 8 OM marker in the language, which Storoshenko (2016) demonstrates to be the default agreement marker. On this basis, he argues that the RFM *-zvi-* is in fact default agreement with a (covert) φ -deficient anaphor, an argument that Murugesan (2019) builds on to classify Shona as a language obeying the AAE with default agreement as a repair strategy. While the case made by Storoshenko (2016) is at first sight appealing, the cross-linguistic and diachronic picture suggests that there are grounds to doubt that reflexive *-zvi-* is really a case of default agreement, and that the homophony between the class 8 default and the reflexive OMs could in fact be accidental.

First, Shona *-zvi-* can be related to similar reflexive markers in many other Bantu languages, which have verbal reflexives markers that are cognates of the Shona and Swahili ones, as the following examples from Chichewa, Lubukusu, Ndebele, Kinande or Tsonga illustrate.

- (27) a. Ndi-na-**dzi**-khal-its-a *pro_{REFL}* w-a-m-kali
 SM1SG-PST-RFM-become-CAUS-FV 1-ASSOC-1-fierce
 ‘I made myself fierce.’ *Chichewa* (Baker 2008: 151)
- b. Weseka a-a-**i**-siim-a
 Yohana SM1-PST-RFM-like-FV
 ‘Weseka likes himself.’ *Lubukusu* (Sikuku 2012: 1)
- c. Ngi-ya-**zi**-khangela
 SM1-PRS-RFM-look.at
 ‘I look at myself.’ *Ndebele* (Bower & Lotridge 2002: 47)
- d. Etta a-ka-**yi**-sag-is-a-i-a
 Etta SM1-PRS-RFM-scare-CAUS-a-CAUS2-FV
 ‘Etta scares herself.’ *Kinande* (Mutaka 2007: 2)
- e. Xi-ngove xa-mina xi-**ti**-vas-ile tolo.
 7-cat 7.POSS SM7-RFM-hurt-PST yesterday
 ‘My cat hurt itself yesterday.’ *Tsonga* (Matsinhe 1997: 171)

The present day Bantu verbal reflexive markers are all taken to descend from the reconstructed proto-Bantu marker **ĩ*. In contrast, class 8 markers have been reconstructed as **bí* (Schadeberg 2003), suggesting that they originate as two clearly distinct markers. These markers are still distinct in most modern Bantu languages, as the following table 9.2 shows.

Even within Shona’s geographical and historical group, corresponding to Guthrie’s S zone (South-East of Africa, corresponding to today’s Zimbabwe, Mozambique, Botswana, South Africa, Swaziland and Lesotho), the homophony between the reflexive marker and class 8 is not uniform. In this sample, reflexives are only homophonous with class 8 (and 10) in two other languages from the S zone, Zulu and Ndebele. However, despite this homophony, it does not look that class 8 acts as default agreement in those languages.

Table 9.2: Reflexive and class 8 object markers in several Bantu languages

Language	Class.	RFM	Class 8	Other homophone	Source
Proto-Bantu		-* <i>ɿ</i> -	-* <i>bi</i> -	-	Schadeberg (2003)
<i>Shona</i>	S10	<u>-zvi-</u>	<u>-zvi-</u>	-	Storoshenko (2016)
Venda	S20	- <i>di</i> -	- <i>swi</i> -	-	Gowlett (2003)
Sesotho	S33	- <i>i</i> -	- <i>di</i> -	-	Demuth (1992)
<i>Zulu</i>	S42	<u>-zi-</u>	<u>-zi-</u>	Cl.10 - <i>zi</i> -	Buell (2005)
<i>Ndebele</i>	S44	<u>-zi-</u>	<u>-zi-</u>	Cl.10 - <i>zi</i> -	Bowern and Lotridge (2002)
Tsonga	S53	- <i>ti</i> -	- <i>swi</i> -	Cl.10 - <i>ti</i> -	Gowlett (2003)
GiTonga	S62	- <i>dzi</i> -	- <i>si</i> -	Cl.10 - <i>dzi</i>	Gowlett (2003)
Swahili	G42	- <i>ji</i> -	- <i>vi</i> -	-	Vitale (1981)
Sambaa	G23	- <i>ki</i> -	- <i>vi</i> -	Cl.7 - <i>ki</i> -	Riedel (2009)
Kinyarwanda	D61	- <i>ii</i> -	- <i>bi</i> -	-	Mpayimana (2003)
Kinande	D42	- <i>yi</i> -	- <i>bi</i> -	Cl.9 - <i>yi</i> -	Mutaka (2007)
Haya	J22	- <i>ee/ye</i> -	- <i>bi</i> -	-	Byarushengo (1977)
Lubukusu	J30	- <i>i</i> -	- <i>bi</i> -	-	Sikuku (2012)
Chichewa	N31	- <i>dzi</i> -	- <i>zi</i> -	-	Mchombo (2005)
Makhuwa	P30	- <i>i</i> -	no Cl.8	-	Van der Wal (2009)
Zambian Fwe	K402	- <i>ki</i> -	- <i>zi</i> -	-	Gunnink (2018)
Namibian Fwe	K402	- <i>ri</i> -	- <i>zi</i> -	Cl.5 - <i>ri</i> -	Gunnink (2018)

In Zulu, class 15 acts as the agreement morpheme for clausal agreement (Zeller 2004), while in Ndebele no OM seems to fulfill that function (at least based on the grammatical sketch of Bower and Lottridge 2002). In Ndebele, agreement with coordinated DPs of different classes is reportedly resolved by second conjunct agreement; in Zulu, class 17 (-ku-) is used as default with certain conjoined or non-agreeing subjects (Buell 2005). In some other languages (e.g. Tsonga and GiTonga), the reflexive is homophonous with class 10 (Proto-Bantu **ji*). Yet, Matsinhe (1997) reports that it is class 8 -swi- that is used to resolve class conflicts with conjoined DPs and with clausal subjects, not class 10. There is thus no cross-linguistic evidence that the reflexive marker is syncretic with default markers even in Shona's close neighbours.

Furthermore, as stressed by Storoshenko (2016) himself, the use of class 8 as a default is surprising. Indeed class 8 is a plural class (recall that Bantu noun classes come by pairs, class 8 being the plural of class 7), and plural is generally considered as marked: conventional notions of markedness would instead predict a singular default. This fact, although not determining in itself, is a further challenge for the equation of class 8 and reflexive marking with default agreement.

Finally, Shona RFMs show many similarities with Swahili anaphoric agreement. Beyond the morphological parallel, Shona -zvi- is also subject-oriented, in complementary distribution with other OMs and φ -invariant. This at least raises the hypothesis that Shona RFMs could be an instance of anaphoric agreement, to be analyzed like Swahili RFMs. Unfortunately, unlike Swahili, Shona has symmetric objects (i.e. the IO is not structurally higher than the DO), and therefore no intervention effects can be expected in DOCs (and indeed none seem to arise), obviating the prediction for parallel 1st/2nd and reflexives PCC effects.

Albeit only conjectural, the evidence presented above puts into perspective the claim, based on the homophony between default class 8 and RFM in Shona, that the latter is default agreement. Given the cross-linguistic and diachronic evidence, it is plausible that this homophony could be accidental. In fact, while Storoshenko (2016) convincingly argues that the class 8 marker in Shona is the default marker, used whenever the agreeing elements contains a clash of φ -features or inherently bears no φ -features, he does not provide evidence that the homophony with the reflexive marker could not be accidental. Furthermore, the close similarity with Swahili anaphoric agreement provides grounds to analyze Shona -zvi- as a case of anaphoric agreement. Although more research, e.g. into the diachrony of Shona, would be needed to ascertain the status of -zvi-, I contend that these facts at the very least cast doubt on the validity of default agreement as the correct analysis for Shona. This weakens the weight of Shona as a case of AAE, and in turn again reduces the empirical basis of the AAE.

9.2.4 Interim summary

This section has argued that the three cases alleged cases of default agreement with anaphors reported in the AAE literature should be reclassified. First, a more thorough look at Albanian reflexives concluded that those examples cite by Woolford (1999) are in fact intransitive constructions, while no AAE can arise transitive reflexives, since only subjects agree and anaphors cannot be subjects. Second, Georgian anaphors were shown to be complex possessed anaphors (following Amiridze 2003; Preminger 2019a), thus expectedly triggering 3rd person singular agreement as per the argument made in section 9.1. Finally, the case of Shona was challenged by cross-linguistic and diachronic evidence, suggesting that its verbal reflexive markers might not be a case of default agreement, but rather could be analyzed as anaphoric agreement. While the evidence presented does not allow to definitively settle the case of Shona, it nonetheless considerably weakens its status as an AAE-case, and provides sufficient grounds to reclassify Shona as a potential case of anaphoric agreement.

The reclassifications argued for above, turning alleged cases of default agreement with anaphors into expected reflexes of given reflexivization strategies (namely detransitivization for Albanian, complex anaphors for Georgian and anaphoric agreement for Shona), thus further reduce the empirical scope of the AAE: the class of default agreement as a repair disappears altogether. Added to the argument made about detransitivization and complex possessed anaphors in the previous section, they yield the following reclassified table of evasion strategies for the AAE, where the default agreement class has disappeared, and detransitivization, complex anaphors and indexical shift cases are no longer classified as AAE repair strategies but rather as independent effects of the nature of the reflexivization strategy.

Additionally, anaphoric agreement can also be substracted from the class of effects attributed to the AAE. Anaphoric agreement, and in particular the case of Swahili, has been given plenty of attention throughout this thesis. The paradigms for anaphoric agreement are typically completely distinct from the rest of the φ -paradigms, and are often φ -invariant. This has been shown to support the hypothesis that reflexivity is encoded in such languages by [ID]-features, undermining the idea that binding can be reduced to φ -Agree. One could argue that precisely the fact that this type of non- φ agreement is seemingly immune to the AAE offers support to the claim that the AAE is indeed linked to φ -agreement. Yet, anaphoric agreement in fact offers no positive evidence whatsoever for the existence of the AAE nor for the claim that binding involves φ -agreement: the absence of φ -features on a reflexively-marked v head cannot be shown to be a consequence of the AAE, or a repair mechanism. Conversely, anaphoric agreement does provide evidence that binding involves another type of feature altogether, namely [ID]. Whether a language can morphologically express [ID]-features on its voice head or not is an id-

iosyncratic property of the language, and the manifestation of independently-motivated reflexivization strategy. Furthermore, as argued at length in chapter 6, φ -based theories of binding cannot successfully account for anaphoric agreement. For this reason, anaphoric agreement is reclassified as a manifestation of [ID]-licensing, independent of the AAE.

In the next section, I show that two other types of repair strategies can be accounted for by mechanisms not only independent of the AAE but which tie in with the proposal made throughout the thesis about anaphoric and person licensing and the role of [ID]-features.

Table 9.3: Reclassified ‘evasion’ strategies for the AAE (interim summary)

Effects attributed to the AAE		
No nominative anaphors	Italian	Rizzi (1990a)
	Icelandic	Rizzi (1990a)
Agreement switch	Kutchi-Gujarati	Patel-Grosz (2014)
		Murugesan and Raynaud (to appear)
Oblique case marking	Inuktitut	Yuan (2018)
	Hindi	Murugesan (2019)
	Punjabi	
Independent effect due to [ID]-licensing		
Anaphoric agreement	Swahili	Woolford (1999)
	Shona?	Murugesan (2019); Storoshenko (2016)
Independent effect of the nature of the reflexivization strategies		
Detransitivization	Nez Perce	Deal (2010); Tucker (2011)
	Albanian	Woolford (1999)
Complex possessed anaphors	Greek	Woolford (1999)
	Selayereese	Woolford (1999)
	Hungarian	Räkosi (2019)
	Georgian	Amiridze (2003)
	Basque	Preminger (2019a)
Perspectival binding	Tamil	Sundaresan (2014)

9.3 Obligatory DOM in Indo-Aryan and Inuit: an [ID]-licensing mechanism

9.3.1 Obligatorily oblique case marking of anaphors

Another reported evasion strategy for the AAE, first reported by Yuan (2018) in Inuktitut, consists in the obligatory marking of the anaphor with an oblique case, making it an unaccessible φ -goal and thus protecting it from violating the AAE.

Besides anaphoric agreement at the D and C levels (cf previous chapter), Inuktitut also has self-standing anaphors of the form *ingmi*. In a non-reflexive sentence like (28a), the subject bears ergative case and the object absolutive, and both arguments trigger person and number argument on the verb. In contrast, in a reflexive sentence, the anaphor bears obligatory modalis case, an oblique case, in turn bleeding the availability of ergative on the subject which then bears absolutive case (see also Johns 1996). Since modalis case is not an accessible case for agreement, the verb agrees only with the absolutive subject.

(28) *Inuktitut*

- a. Taiviti_i-up **Kiuru**_j nagli-gi-**janga**.
David-ERG Carol.ABS love-TR-3SG.3SG
'David loves Carol.'

- b. Taiviti_i **ingmi**_i-nik nagli-gi-**juq**
David.ABS self-MOD love-TR.3SG
'David loves himself.'

(Yuan 2018: 194)

This patterns have led for instance Woolford (1999) to conclude that reflexives in Inuit languages are intransitive constructions. However, as noted by Yuan (2018), the verb still shows the transitivizing morpheme *-gi*, suggesting it is in fact transitive. Yuan demonstrates that modalis case on anaphors is an instance of lexical case (it is for instance preserved in contexts like complex DPs), and argues that Inuktitut anaphors always have KP/PP layer, leading to failed Agree and thus in line with the AAE.

Similar facts can be observed in the Indo-Aryan languages Hindi and Punjabi, in which anaphors always occur with differential object marking, corresponding to the non-agreeing accusative or dative case. This is illustrated for Punjabi below. Punjabi (like Hindi) has an aspect-based agreement split, in which agreement always obtains with the highest unmarked argument. In the perfective aspect, subjects bear ergative case *-ne* and the verb agrees in number and person with the absolutive object *kuRii* 'girl', as in (29a). In the imperfective (29b), the subject is unmarked (nominative) and the verb agrees with it rather than the object. When both objects are case-marked, as in (29c), where *kuRii* bears the differential object marking postposition *-nuu*, the verb exhibits default 3rd person singular agreement.

(29) *Punjabi*

- a. o-ne **kuRii** vekh-**ii**
 3SG-ERG girl.FSG see-PFV.FSG
 ‘He saw the girl.’ *Perfective*
- b. o kuRii vekh rey-**aa** e
 3SG.NOM girl-FSG see stay.PROG.MSG be.PRS.3SG
 ‘He is seeing the girl.’ *Imperfective* (Kaur 2016: 39)
- c. o-ne kuRii-**nuu** vekhy-**aa**
 3SG-ERG girl.FSG-DOM see-PFV.MSG
 ‘He saw the girl.’ *Perfective+DOM* (G. Kaur p.c.)

Anaphors obligatorily bear the DOM suffix *-nuu*, and as a result never trigger φ -agreement on the verb.

- (30) o_i -ne **apne aap_i-***(nuu) vekhy-**aa**
 3SG-ERG self’s self-DOM see-PFV.MSG
 ‘He saw himself.’ (G. Kaur p.c.)

Similar facts carry over to Hindi (Murugesan 2019).

(31) *Hindi*

- a. *Meena_i-ne **apnaa aap_i** dekh-**ii** **thii**
 Meena(F)-ERG selfs self see.PFV.FSG be.PST.FSG
 ‘Meena had seen herself.’
- b. Meena_i-ne **apnaa aap_i-**ko dekh-**aa** **thaa**
 Meena(F)-ERG selfs self-DOM see.PFV.MSG be.PST.MSG
 ‘Meena had seen herself.’ (Murugesan 2019: 145 from G. Kaur p.c.)

As noted by Murugesan (2019) about Hindi, DOM on anaphors is independent of semantic effects attributed to DOM on other 3rd person nominals (e.g. definiteness, specificity). Furthermore, unlike what seems to be the case in Inuktitut, the anaphor is not specifically tied to the DOM marker *-ko* and can occur with other types of PP/KP marking, such as the postposition *-ne* in the following example.

- (32) Raam **apnee aap-me** nahii hāi
 Ram selfs self-in not be.3SG
 ‘Ram is not himself.’ (Murugesan 2019: 146)

The deduction is thus that *apnaa aap* can simply not occur in an unmarked, agreeing case. However, this state of affairs does not straightforwardly follow from the AAE. In the example below in the imperfective aspect, the anaphor obligatorily bears DOM, even though the subject is in the absolutive and constitutes the highest unmarked argument, hence the privileged goal for T.

- (33) Meena_i **apnaa aap_i-ko** dekh-ii thii
 Meena(F).ABS selfs self-DOM see.PERF.FSG be.PST.FSG
 ‘Meena used to see herself.’ (Murugesan 2019: 145)

As noted by Murugesan (2019: 146), “if [DOM] is indeed a repair strategy, then this repair should not happen in a context where the repair is not required”, contrary to facts. So while this strategy *prima facie* looks like an AAE evasion strategy, there are grounds to consider that this is not the case. In the next section, I show that obligatorily DOM is a feature not only of anaphors, but also of 1st/2nd person in Hindi and Punjabi, for which it has been analyzed as a person licensing strategy, and suggest how oblique case marking on anaphors could be recast as a licensing effect, making use of [ID]-features.

9.3.2 DOM as a licensing strategy

In a wide-range of languages, most famously including Indo-Aryan languages like Punjabi or Hindi, objects are split into two groups, those that get marked with an overt adposition or oblique case marker and those that do not – the former being differentially case marked compared to the latter.⁶ The properties that qualify an object for DOM are cross-linguistically uneven and debated even within single languages. Let us take the example of Hindi. Like Punjabi, Hindi has an aspect-based case and agreement split: in the perfective aspect, subjects bear ergative case (*-ne*), while in the imperfective they are unmarked (nominative). Objects, on the other hand, are by default left unmarked (absolutive) across aspects.

- (34) *Hindi*
- a. Lataa-ji-**ne** kai gaane gaa-ye.
 Latta.F-HON-ERG many song.M.ABS sing-PFV.MPL
 ‘Latta-ji sang several songs.’ *Perfective*
- b. Lataa-ji gaane gaa-tii hĒ.
 Latta.F-HON.NOM song.M.ABS sing-HAB.F be.PRS.PL
 ‘Latta-ji sings/used to sing songs.’ *Imperfective* (Bhatt 2007: 3)

However, as can be seen from the examples below (in the imperfective), some objects are marked with the adposition *-ko*, the DOM marker.

- (35) a. Mina tum*(-**ko**) dekh rahii thii.
 Mina.F.NOM you-DOM see PROG.F be.PST.FSG
 ‘Mina was looking at you.’

⁶Note that DOM can be approached from a wider perspective that includes not only case and adpositions, but obligatory agreement marking or clitic doubling of DOM-objects (Kalin 2018). I only mention case here for expository purposes, but the conclusions of this thesis in fact align with this more inclusive view of DOM.

- b. Mina Tina*(-ko) dekh rahii thii.
 Mina.F.NOM Tina-DOM see PROG.F be.PST.FSG
 ‘Mina was looking at Tina.’ (Bhatt 2007: 2 in Kalin 2018: 113)

The DOM marker *-ko* appears obligatorily on 1st and 2nd person pronouns, as can be seen in example (35a), and on proper nouns, as in (35b). In these sentences, absence of the *-ko* marker leads to ungrammaticality. DOM can additionally optionally appear on other DPs, for instance indicating the specificity of the object. If the object is specific, as in (36a), it will be marked with *-ko*, while it will not if it is non-specific (36b).

- (36) a. Mina ek bacce(-ko) uṭhaa rahii hai.
 Mina.F a child-DOM lift PROG.F be.PRS.3SG
 ‘Mina is picking up a (particular) child.’
 b. Mina ek bacca uṭhaa rahii hai.
 Mina.F a child lift PROG.F be.PRS.3SG
 ‘Mina is picking up a (nonspecific) child.’ (Bhatt 2007: 2 in Kalin 2018: 113)

As these examples evidence, DOM is not reserved to 1st and 2nd person. Instead, it seems to concern a wider class of elements, based on a common semantic property – specificity in the case of Hindi. For this reason, DOM has often been analyzed as a way of identifying certain semantic or pragmatic features of the object (e.g. Dalrymple and Nikolaeva 2011; De Hoop and Malchukov 2008; Næss 2004). In keeping with this, the obligatoriness of DOM with 1st and 2nd person is often justified by the fact that 1st/2nd person pronouns are always specific or always animate. A similar reasoning could be carried over to reflexive anaphors, which are always trivially specific/definite (they are always preceded by their antecedent).

However, a closer look at the obligatoriness of DOM on 1st and 2nd person as well as the role of semantic concepts such as specificity have lead some researchers to rethink the mechanisms behind DOM. First, while the presence of DOM is usually associated with semantic effects, like specificity in Hindi or animacy in Spanish (Ormazabal & Romero 2013), these associations are rarely exceptionless, and take the form of tendencies rather than rules (Kaur 2016; Kidwai 2010). For instance, some specific objects can be unmarked while some objects which are marked can be non-specific. Such evidence questions the relevance of the notions of animacy or specificity for DOM. Furthermore, in contrast with specific or animate objects, the association of 1st and 2nd person (and reflexives) with DOM is exceptionless and non-optional. It also does not yield any particular additional semantic effects. The robustness of DOM with 1st and 2nd person, put in perspective with the other syntactic idiosyncrasies of local persons introduced so far, suggests that DOM could be one of the reflexes of a licensing mechanism, including but not restricted to person licensing.

This observation meets those of Ormazabal and Romero (2013), Kaur (2016) or Kalin

(2018) among others, who pave the way for an alternative analysis of DOM. Ormazabal and Romero (2013) call semantic concepts like specificity or animacy ‘parasitic’ on other syntactic mechanisms such as agreement, while Kaur (2016) and Kalin (2018) analyze DOM as a reflex of the licensing requirement of a certain class of nominals. To elaborate, for these authors DOM is a means of licensing certain nominals, either directly (case as a licensor, Kaur 2016) or indirectly (DOM is a reflex of an agreement relation with a licensing head, Kalin 2018; Ormazabal and Romero 2013). Under this view, it is unsurprising that 1st and 2nd person pronouns, which require licensing (in virtue of the PLC), always require DOM. Obligatory Differential Object Marking of 1st and 2nd person objects therefore seems to belong to the range of phenomena that fall under the Person Licensing Condition, i.e. the requirement that person be specially licensed.

If, like the parallel between 1st and 2nd person and anaphors suggests, obligatory DOM is a reflex of obligatory licensing, then the proposal developed for person and reflexive licensing in terms as [ID]-features can be extended to account for this. Two possibilities arise: first, one could assume that the functional layer added by the adposition (be it a DP, a PP or a KP) is itself a licensor, i.e. 1st/2nd person pronouns and anaphors would be licensed/[ID]-valued within their own projection. This would be consistent with the account proposed for strong pronouns in 4.3.2, according to which the presence of a D head and of more structure in general is sufficient to ensure person licensing. However, assuming such an account for anaphors would amount to say that they are self-licensed, i.e. do not need to be bound to an antecedent, an unwelcome conclusion in languages like Hindi and Punjabi whose anaphors must be bound locally by a c-commanding antecedent, as this example from Hindi below illustrates.

- (37) Karan_i-ko lagaa [ki maya_j-ne apne aap_{j/*i}-ko dekhaa].
 Karan-DAT feel.PFV.MSG that Maya-ERG self’s self-DOM see.PFV.MSG
 ‘Karan_i thinks that Maya_j saw self_{j/*i}. Hindi (G. Kaur p.c.)

The second possibility would be to assume that DOM on an argument arises as the reflex of a licensing relation established with a licensing head like v. 1st/2nd person would then standardly be licensed by [ID]-agreement with the speech act center located on v, while anaphors would agree with their antecedent for [ID] through v (as proposed in previous chapters), resulting in DOM marking on 1st/2nd person and anaphoric items. v-licensed DOM corresponds to proposals put forth by Ormazabal and Romero (2013) or Kalin (2018), and is supported by evidence that DOM objects in Hindi and Punjabi must obligatorily raise to a position above v, suggesting the involvement of the latter in the DOM process (Bhatt & Anagnostopoulou 1996; Kaur 2016; Kidwai 2010). Evidence for this comes from ditransitives, whose base order is normally Subject-IO-DO-verb (Malhotra 2011, 2014), as shown in (38a). When the direct object is DOM, as in (38b), the object is obligatorily shifted to a VP external position above the IO.

- (38) a. Ram-ne [_{VP} Anita-ko **chitthii** bhej-ii]
 Ram-ERG Anita-DAT letter(F) send-PFV.F
 ‘Ram sent the letter to Anita.’
 b. Ram-ne **chitthii-ko** [_{VP} Anita-ko bhej-aa]
 Ram-ERG letter(F)-DOM Anita-DAT send-PFV
 ‘Ram sent the letter to Anita.’ (Bhatt & Anagnostopoulou 1996)

Kaur (2016) demonstrates that the same facts of 1st/2nd person pronouns in Punjabi, which are obligatorily DOM. This thus offers support to the view that DOM is the morphological reflex of licensing by v for 1st/2nd person but also for other DOM objects, including anaphors. If v is obligatorily involved in the binding of anaphors in Hindi/Punjabi, this predicts that anaphors should be subject-oriented, in the same way as in French or Swahili. This prediction is confirmed, lending support for a v-licensing approach to DOM on anaphors. This can be seen in (39a), where the short form of the anaphor *apne* can only refer to the subject, despite the presence of a higher object, or in (39a), where the possessive anaphor *aapni* is also obligatorily subject-oriented (Bhatia & Poole 2016).

- (39) a. Karan_i-ne Maya_j-ko **apne**_{i/*j} baane mein bataayaa.
 Karan-ERG Maya-DAT self about.OBL in tell.PFV.MSG
 ‘Karan_i told Maya_j about self_{i/*j}.’ (G. Kaur p.c.)
 b. raam-ne_i anu-ko_j **apni**_{i/?j/*k} kitaab dii
 Ram-ERG Anu-DAT self.GEN book give.PFV
 ‘Ram_i gave Anu_j his_{i/?j/*k} book.’ (Bhatia & Poole 2016: 63)

With the full form of the anaphor, subject-orientation can be observed in ditransitive constructions, in which *aapne aap* consistently refers to the subject *Karan*, regardless of its role as the IO in (33b) or as the DO in (40b) (note that the right-most item is consistently interpreted as the IO, cf Bhatt and Anagnostopoulou 1996).

- (40) a. Karan_i-ne Maya_j-ko **aapne aap**_{i/*j}-ko bhej-aa.
 Karan-ERG Maya-DOM self’s self-DAT send-PFV.MSG
 ‘Karan_i sent Maya_j to himself_{i/*j}.’
 b. Karan_i-ne **aapne aap**_{i/*j}-ko Maya_j-ko bhej-aa.
 Karan-ERG self’s self-DOM Maya-DAT send-PFV.MSG
 ‘Karan_i sent himself_{i/*j} to Maya_j.’ (G. Kaur p.c.)

Note that unlike what could be expected for [ID]-deficient DOs, no PCC effects arise in Hindi ditransitives. In (40b), the anaphor is the DO and thus is generated lower than the IO, and yet there is no intervention effect of the latter. While this might seem to contradict the predictions of a v-mediated approach to binding, these facts actually find an explanation in more general properties of the languages. Not only dative IOs do not intervene for reflexive binding, but, as shown by Malhotra (2011), they also do not con-

stitute interveners for movement of the DO (cf (38b) and (40b)), for movement of the subject in raising-constructions or for passivization, where contrary to expectations given the DO-IO asymmetry, only themes can be passivized. Building on Kidwai (2000), Malhotra (2011) shows that ditransitives involve applicative heads – the IO being generated in Spec,ApplP –, and argues that before moving above *v* (for object shift), DOs first move to a second specifier of ApplP. In this position, the DO and the IO are equidistant from *v*: multiple specifiers are treated as equidistant from the target of movement (Chomsky 1995b; Ura 1996). Both the IO and the DO can thus be targeted for further movement and agreement operations, including binding by the subject through *v* by means of [ID]-agreement. The absence of dative intervention throughout the language is thus explained independently by the combination of object shift and equidistance.

So despite the lack of intervention effects in ditransitives, obligatory DOM on items like 1st/2nd person and anaphors can be argued to come from their licensing by *v*, as also supported by the subject-orientation of anaphors in Hindi and Punjabi.

As a final remark on Hindi and Punjabi, I would like to comment on the presence of DOM on non-1st/2nd or reflexive items (e.g. proper names or specific objects). I contend that it can be articulated with the above proposals in two possible ways. On the one hand, it could be assumed that depending on the language, [ID]-features and context-linking are extended to other nominals, which amounts to saying that proper names and specific objects need to be context-linked in some way. This proposal is not only unintuitive, but it also weakens the conceptual motivation for 1st/2nd person licensing argued for here. Alternatively, one could argue that DOM on other objects is the morphological reflex on a licensing relation established with a functional head (perhaps *v* but not necessarily so) in some other feature than [ID]. For instance, it has been shown that in some languages, discourse structural features such as feature [TOPIC] forces movement out of the VP and triggers obligatory agreement, basically resulting in the same outcome as context-linking (Dalrymple & Nikolaeva 2011; Mursell 2018; Næss 2004). DOM in Punjabi and Hindi could thus be argued to be the reflex of different agreement relations using different features, explaining the large range of phenomena falling within the class of differentially marked objects. Of course, it remains to be determined what are the features or properties leading to this manifestation.

Can a similar claim, equating obligatory oblique case marking/DOM with [ID]-licensing, be upheld for Inuktitut anaphors? Although no immediate parallel can be established with 1st/2nd person pronouns in the language (they do not bear obligatory modalis case), two different types of person effects in Inuit languages have been reported that might be of interest (Compton 2019; Johns 1996; Johns & Kučerová 2017). The first one concerns the unavailability of 1st/2nd person possessor agreement marking in South Baffin Inuktitut, in which 1st/2nd possessors only must surface as full, oblique marked pronouns. Although initially appealing, these patterns have been shown by Compton (2019) and Yuan (2015)

to be the result of phonological change rather than genuine person effects.⁷ The second type of 1st/2nd vs 3rd person effect is found with transitive verbs in the participial mood in Labrador Inuttut (Johns 1996) and arguably South Baffin Inuktitut (Johns & Kučerová 2017). In the participial mood only, transitive constructions taking an ergative subject and an absolutive object can only encode argument combinations in which the object is 3rd person, while 1st/2nd person absolutive objects appear to be banned.

(41) *Labrador Inuttut* (Johns 1996:132)

- a. taku-jaga
see-TR.PART.1SG.3SG
'I see him.' SBJ 1 > OBJ 3
- b. *taku-jânga
see-TR.PART.3SG.1SG
Int: 'She/he/it sees me.' *SBJ 3 > OBJ 1

In South Baffin Inuktitut, the ban on 1st/2nd person absolutive objects is reported to force the 1st/2nd person object to occur in the modalis case as a rescue strategy.

(42) *South Baffin Inuktitut* (Johns & Kučerová 2017)

- a. mali-langa-si-jara
follow-going.to-INCP-TR.PART.1SG/3SG
'I am going to follow him.' SBJ 1 > OBJ 3.ABS
- b. Jaani **uvan-nit** ikaju-ruma-nngit-tuq
John.ABS 1SG-MOD help-want-NEG-INTR.PART.3SG
'John does not want to help me.' SBJ 3 > OBJ 1.OBL

These patterns suggest that at least in South Baffin Inuktitut, 1st/2nd person cannot occur in the absolutive case but must bear an oblique case, exactly like anaphors. The restriction on 1st/2nd absolutive objects being accounted for by Johns and Kučerová (2017) and Compton (2019) as a person licensing effects at the C/T level, it could follow that obligatory oblique case on anaphors and 1st/2nd person are the result of such a licensing strategy, in the fashion sketched above for Hindi and Punjabi. However, this conclusion remains tentative, as the relevant data should be established to be consistent dialect-internally and to arise in the same conditions (for instance, with modalis 1st/2nd person, the verb is apparently glossed as being intransitive in (42b), while Yuan (2018) shows that with modalis anaphors the verb bears a transitive suffix). Alternatively, the first hypothesis evoked above, i.e. DP-internal anaphor licensing thanks to the presence of a valued [ID]-feature on a D head, could be considered for Inuit languages, given that Inuit

⁷Interestingly, Johns (1996) reports that similar restrictions arise with anaphoric possessor agreement in a different dialect, Labrador Inuttut, although it is not clear how they could be related to restrictions on 1st/2nd person possessors in South Baffin Inuktitut.

anaphors function as long-distance anaphors and arguably need not be bound by a local antecedent. This would amount to saying that Inuit anaphors are inherently valued for [ID], and binding does not happen via Agree in these languages.

This section has shown that obligatory DOM on Hindi and Punjabi anaphors is in fact part of larger patterns of DOM objects in these languages, and thus cannot be considered as specific evidence for the AAE. Furthermore, I have argued that there are grounds to analyze DOM on anaphors and 1st/2nd person as the reflex of [ID]-licensing by v, therefore proposing an [ID]-based explanation to this alleged AAE evasion strategy. Finally, I reviewed some evidence that this proposal could be extended to Inuktitut oblique-marked anaphors, although this proposal remains tentative and should be further substantiated. Next, I examine whether an [ID]-licensing approach could also account for the absence of nominative anaphors in Icelandic and Italian.

9.4 Icelandic and Italian nominative anaphors: a reflex of the PCC?

The ban on nominative anaphors in Icelandic could be related to a class of person effects found in dative-nominative constructions and analyzed as PCC-effects (Anagnostopoulou 2003, 2005; Béjar & Rezac 2003; Boeckx 2000). Icelandic dative-nominative constructions have been known well-known to ban 1st/2nd person nominative objects, as shown by the ungrammaticality of (43b), in contrast with a 3rd person object in (43a).

(43) *Icelandic* (Anagnostopoulou 2005: 6)

- | | | |
|----|---|----------------|
| a. | Henni leiddust þeir
she.DAT was.bored.by.3PL they.NOM
'She was bored by them.' | DAT 3 > NOM 3 |
| b. | *Henni leiddumst við
she.DAT was.bored.by.1PL us.NOM
'She was bored by us.' | *DAT 3 > NOM 1 |

The pattern in (43) has prompted an analysis of this restriction as a PCC effect affecting dative-nominative constructions, argued to involve one agreeing/licensing head (T) and two arguments, one of them being a dative and an intervener, a typical PCC configuration.

The ungrammaticality of nominative anaphors in such constructions, described by Rizzi (1990a) as the AAE and illustrated again below, could at first sight be directly paralleled with the person restriction depicted above.

- (44) *Maríu_i leiðist **sig_i**
Mary.DAT is.bored.by REFL.NOM
'Mary_i is bored by herself_i.' (Everaert 1991: 289)

Given the parallel behavior of reflexive anaphors with 1st/2nd person, it is very tempting to analyze this apparent AAE manifestation as a PCC effect, triggered by the need to value unvalued [ID]-features. However, the picture proves to be more complicated and several pieces of evidence militate against such a simplification.

First of all, while the ungrammaticality of anaphoric nominative objects seems absolute, that of 1st/2nd person items is less constant. In particular, the ungrammaticality of sentences like (43b) above is alleviated if the 1st/2nd person agreement on the verb is syncretic with 3rd person agreement, as in the following example (Sigurðsson 1996).

- (45) Henni leiddist ég/þú.
 her.DAT is.bored.by.1/2/3.SG I.NOM/you.NOM
 ‘She is bored by me/you.’ (Hartmann & Heycock 2016: 69)

This contrast carries over to dative-nominative with infinitive constructions (ECM constructions), in which a 1st person nominative object is grammatical if the verb bears default agreement, while a reflexive object is always ungrammatical.

- (46) a. þeim hefur/*höfum alltaf fundist [við vinna vel]
 them.DAT have.3SG/*1PL always found we.NOM work well
 ‘They have always thought that we work well.’ (Anagnostopoulou 2005: 7)
 b. *Maríu_i fannst [sig_i vera gáfuð].
 Mary.DAT found.3SG REFL.NOM be gifted.F.SG.NOM
 Int: ‘Mary_i found herself_i to be gifted.’ (Taraldsen 1995: 315-316)

The consequences of this asymmetry are two-fold. First, they clearly show that in Icelandic the nature of the restriction on 1st/2nd person on the one side and reflexives on the other is different. Second, the fact that a nominative 1st/2nd person is grammatical, on the condition that covarying φ -agreement does not appear, is not characteristic of a PCC-type effect (failure to license person usually yields ungrammaticality) but rather of a failure to meet the structural conditions needed to trigger φ -agreement, as argued for in 3.4.3 (see also Stegovec (2016) for arguments against an analysis of Icelandic person restrictions as PCC effects).

Additionally, nominative anaphors are banned throughout in Icelandic and not only in dative-nominative constructions where one could postulate a PCC-like intervention effect. Although Icelandic anaphors can be bound long-distance, as seen in (47a), a nominative anaphor is ungrammatical as the subject of an embedded clause as in (47b), despite matrix subject *Jon* being a possible antecedent and there being no potential dative intervener.

- (47) a. Jón_i segir [að María_j elski sig_i].
 Jon says that María_j loves.SBJV self.ACC
 ‘John_i says that Maria likes him_i.’

- b. *Jón_i segir [að sig_i elski María_j].
 Jon says that self.NOM loves.SBJV Maria
 ‘John_i says that he_i likes Maria_j.’ (Rizzi 1990a: 33)

This suggests that the ban on nominative anaphors in Icelandic is not due to a PCC-like intervention effect, but rather seems to result from a general impossibility of nominative anaphors in the language.

Finally, while the ban of nominative anaphors in dative-nominative constructions also surfaces in Italian, motivating the original observations of Rizzi (1990a), no corresponding person effects are found in similar contexts in this language, as illustrated by the grammaticality of an 1st or 2nd person nominative object in the example below (note that the verb even agrees with the nominative object).

- (48) a. *A loro piacciono **se stessi**.
 3PL.DAT like.PRS.3PL REFL.MPL
 Int: ‘They like themselves.’ (Rizzi 1990a: 32)
- b. Gli piaccio **io** / piaci **tu**.
 3MSG.DAT like.PRS.1SG 1SG.NOM / like.PRS.2SG 2SG.NOM
 He likes me/you. (D’Alessandro 2003: 9)

The Italian weak anaphor *si* is furthermore not subject to the PCC, as demonstrated in chapter 5, making it unlikely that its stronger counterpart *se stesso* would be.

Therefore, the PCC or a licensing-based account does not constitute a satisfying explanation for the ungrammaticality of nominative anaphors in Icelandic and Italian. Interestingly, Murugesan’s (2019) timing-based approach to the AAE also fails to derive the restriction on nominative anaphors in dative-nominative constructions. Given that the dative subject (i.e. the antecedent) is merged in the structure before the φ -probe located on T, the anaphor is expected to have valued φ -features by the time T probes, and thus result in covarying φ -agreement (the pattern introduced in (2)), contrary to fact. So neither an [ID]-based approach nor a φ -based one can actually account straightforwardly for those facts at the very root of the AAE generalization.

The question then remains why nominative anaphors are not found in Icelandic and Italian. Maling (1984) proposes a functional explanation for this nominative gap in Icelandic. Based on the fact that Icelandic anaphors were diachronically clause-bound and that nominative objects are comparably rare in the language, the low frequency of nominative anaphors would have led to degraded learnability and to the disappearance of the nominative form of the anaphor from the paradigm, resulting in their overall absence in the language. Rizzi (1990a) argues against such a paradigm gap in Italian, stressing that the Italian anaphoric paradigm is partly based on and syncretic with the pronominal paradigm, where no such gaps are observed, making the emergence of such a gap unlikely. Murugesan (2019), attempting to bundle together the absence of unmarked anaphors in

languages like Hindi and Inuktitut with the Icelandic and Italian facts, concludes that this functional approach cannot be on the right track, on the grounds that it is not generalizable to languages with frequent unmarked objects such as Hindi and Inuktitut, and therefore proposes an alternative mechanism based on a parametrizable case-licensing requirement. However, if one adopts the approach proposed of Hindi and Inuktitut in terms of [ID]-licensing developed in the previous section, one can in fact uphold the functional approach for Icelandic and Italian and dispense with additional stipulations regarding case-licensing. Despite Rizzi's objection, the functional explanation proposed by Maling (1984) thus remains the most plausible to account for the absence of nominative anaphors in Italian and Icelandic.

9.5 Conclusion: what is left of the AAE?

9.5.1 Kutchi-Gujarati: a bona fide case of AAE

Only one language shows effects that remain so far unambiguously attributed to the AAE, namely Kutchi-Gujarati, which is shown by Patel-Grosz (2014) to display agreement switch from object to subject when the object is an anaphor (see also Murugesan and Raynaud (to appear) for an alternative analysis). This pattern is exemplified again below. Kutchi-Gujarati, like other Indo-Aryan languages, has an aspect-based agreement split (not a case split) and has object agreement in the perfective aspect, as in (49).

- (49) John **Mary-ne** ad-y-i
 John.NOM Mary-ACC touch-PFV-F.SG
 ‘John touched Mary.’ (Patel-Grosz 2014: 1)

The anaphor in Kutchi-Gujarati is *ena pothane*, a complex anaphor formed by a possessive pronoun in the genitive and the noun *potha* ‘self’ (or *pot-pothane* in the plural). When the object of a perfective sentence is an anaphor, it seems that the verb no longer agrees with the object, but rather with the subject. This can be observed in two contexts, namely with dative subjects and conjunct subjects. In the first context, the subject bears lexical dative case, which in Kutchi-Gujarati triggers 3rd person neutral singular agreement. In (50a), the verb agrees with the plural non-reflexive object *chokrane* ‘children’, as expected. In contrast, in (50b), the agreement does not seem to be with the features reflexive object, but instead is neutral singular, namely the features that surface upon agreement with a dative, suggesting that the agreement controller is the subject.

- (50) a. Raj-ne **chokra-ne** jo-v-a par-y-a
 Raj-DAT children-ACC see-INF.PL had-PFV-PL
 ‘Raj had to see children.’

- b. **Raj-ne** e-na potha-ne jo-vu par-y-**u**
 Raj-DAT 3SG-GEN self-ACC see-INF.N.SG had-PFV-N.SG
 ‘Raj had to see himself.’ (Patel-Grosz 2014: 5)

A second piece of evidence comes to strengthen this observation. When the object is reflexive and the subject is a coordinated DP, the verb reflects the features of the first conjunct of the subject.

- (51) a. [**Mary** ane John] pot-potha-ne jo-y-i/*a
 Mary.NOM and John.NOM themselves-ACC see-PFV-F.SG/*PL
 ‘Mary and John saw themselves.’
 b. [**John** ane Mary] pot-potha-ne jo-y-o/*a
 John.NOM and Mary.NOM themselves-ACC see-PFV-M.SG/*PL
 ‘John and Mary saw themselves.’ (Patel-Grosz 2014: 7)

This pattern is unexpected in two respects. First, it again signals that the verb has switched its agreement goal to the subject, as agreement with the anaphor would presumably trigger plural agreement, contrary to fact. Second, Kutchi-Gujarati does not exhibit first conjunct agreement outside of reflexive contexts: coordinated subjects and objects normally trigger plural agreement, as shown by the following examples.

- (52) a. [**John** ane **Mary**] Bill-ne jo-th-a t-a
 John.NOM and Mary.NOM Bill-ACC see-IPFV-PL PST-PL
 ‘John and Mary were watching Bill’. *Imperfective - subject agreement*
 b. Bill [**Mary ane John**]-ne jo-y-a
 Bill.NOM Mary and John-ACC see-PFV-PL
 ‘Bill saw Mary and John’. *Perfective - object agreement* (Patel-Grosz 2014: 6)

Kutchi-Gujarati therefore seems to exhibit exceptional agreement patterns in the case of reflexive objects only, apparently evading agreement with reflexive anaphors by switching to a different agreement controller. Nothing in the available data in Patel-Grosz (2014) suggests that these patterns could be due to an independent factor, and unfortunately no further data could be obtained to shed light on the Kutchi-Gujarati pattern and potentially identify independent causes for its behavior. Kutchi-Gujarati thus appears to be a bona fide case of Anaphor-Agreement Effect.

9.5.2 Conclusion

The first half of this chapter showed that some patterns that had been attributed to the AAE had in fact been either incorrectly classified (Albanian, Georgian and potentially Shona, section 9.2), or could actually be explained independently by the nature of the reflexivization strategy used (languages with complex possessed anaphors, detransitivizing

reflexives or perspectival anaphors licensing indexical shift, section 9.1), thus voiding the alleged empirical support of such languages for the AAE.

Building on these findings, sections 9.3 and 9.4 addressed two further classes of patterns described as falling within the scope of the AAE. Section 9.3 demonstrated that the obligatory oblique case marking found in Indo-Aryan languages like Hindi or Punjabi and in Inuktitut could in fact not be straightforwardly accounted for by the AAE. However, the obligatory case marking can be paralleled with the mechanism used for licensing 1st/2nd person at least in Hindi/Punjabi. On this basis, I have argued that obligatory DOM of reflexive anaphors, instead of being an evasion strategy for the AAE, is actually the reflex of person licensing and anaphoric binding through *v*. These languages thus not only do not offer support for the AAE or the φ -based approach to binding, but actually provide evidence strengthening the parallel between 1st/2nd person and reflexives, which can be explained using the referential [ID]-feature approach to licensing developed in previous chapters.

Section 9.4 showed that, despite an apparent parallel between nominative anaphors and 1st/2nd person in dative-nominative constructions in Icelandic, a PCC-like licensing-based account cannot be upheld for such cases. Yet, as admitted by [Murugesan \(2019\)](#), the Icelandic and Italian cases are not predicted by a timing-based and φ -based approach to the AAE either. I conclude that a functional approach to this paradigmatic gap such as that proposed by [Maling \(1984\)](#) is in fact a likely explanation for the data at the very root of the AAE.

Even if Kutchi-Gujarati is a bone fide case of AAE evasion, as outlined in 9.5.1, the drastic reduction of the empirical coverage of the AAE as demonstrated in this chapter considerably weakens its power as an argument in favor of φ -based binding. The debunking of the above phenomena as manifestations of the AAE leads to the conclusion that all but one (Kutchi-Gujarati) of the languages cited in empirical support of the AAE can in fact be attributed to independent factors, such as the nature of the reflexivization strategy used, [ID]-licensing or a paradigmatic gap brought about by diachronic/acquisitional development. These findings are summed up in the following table. In the light of the facts exposed in this chapter, the AAE thus no longer constitutes a strong objection to assuming that binding of reflexive anaphors is achieved by agreement in referential [ID]-features, whose advantages over φ -features have been demonstrated throughout this thesis.

Table 9.4: What is left of the AAE

Effects attributed to the AAE		
Agreement switch	Kutchi-Gujarati	Patel-Grosz (2014) Murugesan and Raynaud (to appear)
Paradigm gap		
No nominative anaphors	Italian	Rizzi (1990a)
	Icelandic	Rizzi (1990a)
Independent effect due to [ID]-licensing		
Anaphoric agreement	Swahili	Woolford (1999)
	Shona?	Murugesan (2019); Storoshenko (2016)
Oblique case marking	Inuktitut	Yuan (2018)
	Hindi	Murugesan (2019)
	Punjabi	
Independent effect of the nature of the reflexivization strategies		
Detransitivization	Nez Perce	Deal (2010); Tucker (2011)
	Albanian	Woolford (1999)
Complex possessed anaphors	Greek	Woolford (1999)
	Selayereese	Woolford (1999)
	Hungarian	Räkosi (2019)
	Georgian	Amiridze (2003)
	Basque	Preminger (2019a)
Perspectival binding	Tamil	Sundaresan (2014)

Chapter 10

Conclusions

The present thesis has been concerned with the features that underlie the syntax of reflexive binding and person licensing, addressing two competing analytical possibilities. One family of analyses argues that binding is powered by agreement in φ -features (Heinat 2008; Kratzer 2009; Murugesan 2019; Reuland 2011; Rooryck & Vanden Wyngaerd 2011), while another proposes that referential or index features are involved in binding relations (Hicks 2009). Going beyond the many morphological, syntactic and semantic considerations that have been put forth to build syntactic theories of reference and referential dependencies, this thesis has addressed a particular empirical challenge. In several languages, reflexive anaphors pattern with 1st/2nd person pronouns in that they are banned as direct objects in double object constructions, obeying what is known as the Person-Case Constraint (Bonet 1991). The aim of this thesis has been to develop a syntactic theory of binding and person licensing that accounts for the common behavior of reflexive anaphors and 1st/2nd person pronouns in double object constructions and beyond, in a way that informs the debate on the featural content of local reflexive anaphors. I will first highlight the empirical and theoretical findings, before discussing some directions for further research.

Empirical findings

Reflexive anaphors have been oft noted to behave like 1st/2nd person pronouns in French. However, the cross-linguistical validity of this pattern had never been thoroughly investigated. This thesis has provided detailed, and in some cases novel data showing that reflexives pattern like 1st/2nd person in DOCs in at least four unrelated languages: French (ch. 5), Swahili (ch. 6), Warlpiri and Southern Tiwa (ch. 7). Furthermore, I have shown that the common patterning of reflexives and 1st/2nd person extends beyond DOCs, to other constructions involving two objects such as causatives (e.g. in French) and applicatives (e.g. Swahili), but also potentially to transitive constructions where 1st/2nd person

and reflexives are obligatorily oblique case marked in Hindi and Punjabi, and possibly in some varieties of Inuit (ch. 9).

A second major empirical contribution of this thesis is the identification and characterization of markers of coreference on functional elements/grammatical categories (i.e. beyond nominal and pronominal anaphors), which I unify under the label anaphoric agreement. I have shown that verbal reflexive markers in Swahili (ch. 6), Southern Tiwa, Warlpiri and potentially Classical Nahuatl (ch. 7) and Shona (ch. 9) can be analyzed as anaphoric agreement on a head in the verbal domain, which I identified as *v*. I have argued that verbal anaphoric agreement should be put on a par with other linguistic phenomena that are usually analyzed in isolation. This includes switch reference marking, which is found on complementizer (C) heads and tracks reference across clauses (based on data from Amahuaca, Amele, Inuktitut, Kobon, Seri, Warlpiri, Washo and Yawanawa), and 4th person/reflexive/proximate possessor agreement in the nominal domain, which is marked on a head identified as *D* and encodes (non-)identity between the possessor of a NP and a higher nominal, based on data from Eskimo-Aleut languages (Inuktitut and West Greenlandic, but also Central Yup'ik) and Tupian languages (Emerillon, Káro and Tapirapé). This thesis has provided a review of these phenomena under a new overarching perspective (ch. 8).

Finally, this thesis has contributed on a last empirical front, namely the Anaphor-Agreement Effect (AAE). Chapter 9 lists, reviews and discusses all the patterns that have been taken as supporting facts for the existence of the AAE (namely patterns from Albanian, Basque, Georgian, Greek, Hindi, Hungarian, Icelandic, Inuktitut, Italian, Kutchi-Gujarati, Nez Perce, Punjabi, Selayereese, Shona, Swahili and Tamil). I show that the empirical evidence behind this generalization is actually not as strong as it is claimed, and that many of these patterns have either been incorrectly analyzed or can at least be accounted for differently, calling into question the reality of this phenomenon.

Theoretical contributions

The main claim of this thesis is that both anaphoric binding and person licensing are based on referential [ID]-features, defined as follows, rather than by φ -features.

(1) The [ID]-feature:

- a. takes indices (integers or letters) as values. These indices encode the relative reference of DPs with regard to one another;
- b. is interpretable at both LF and PF interfaces, i.e. [ID]-features play a role in the interpretation of sentences and may be expressed morpho-phonologically;
- c. is present as an attribute on every nominal;
- d. is valued on referential nominals and functional heads encoding utterance

- context participants;
- e. is unvalued on anaphoric nominals, constituting the syntactic correlate of anaphoricity;
- f. is unvalued on indexicals ($1^{st}/2^{nd}$ person items), constituting the syntactic correlate of utterance context dependency.

I have argued that $1^{st}/2^{nd}$ person and reflexive anaphors form a natural class, defined by an unvalued [ID]-feature, as captured by the Context-Linking Requirement. Specifically, I have proposed that local, weak reflexive anaphors are referentially deficient and need to be bound via [ID]-agreement with a local antecedent through the mediation of a reflexive voice head. $1^{st}/2^{nd}$ person weak pronouns, by virtue of being indexicals, are context-dependent and need to be syntactically linked to a syntactic representation of the utterance context to value their [ID]-feature.

(2) Context Linking Requirement (CLR)

Context-dependent elements, such as $1^{st}/2^{nd}$ person and reflexives, bear an interpretable unvalued [iID: _] feature.

[ID]-features were shown to have many advantages over φ -features within Agree-based theories of both binding and person licensing and at the intersection of both. As far as the former is concerned, [ID]-features, unlike φ -features, specifically target referential properties of nominals, and are not subject to the pitfalls faced by the φ -approach (e.g. case discrimination or cases of φ -mismatch between the anaphor and its antecedent). [ID]-features were also shown to be able to account for anaphoric agreement, i.e. the often φ -invariant, coreference encoding agreement marker triggered on functional heads by reflexive anaphors. In the domain of person licensing, [ID]-features provide a principled way to formalize the requirement that $1^{st}/2^{nd}$ person be specially licensed, namely their indexicality/context-dependency. They do not face the empirical challenges of a φ -based approach (e.g. PCC effects with 3^{rd} persons) or its theoretical shortcomings (e.g. the question of the locus of valued PERSON features or the asymmetric manifestations of person φ -agreement and person licensing failures). Finally, [ID]-features best account for the central empirical puzzle of this thesis: the common behavior of $1^{st}/2^{nd}$ person and reflexives (of all person) in PCC-contexts and beyond, which lies at the intersection of binding and person licensing, gets successfully explained by an [ID]-based theory.

Another important theoretical contribution of this thesis is that it develops a syntactic theory of anaphoric agreement, a phenomenon that is otherwise underrepresented in terms of formal accounts. I propose that anaphoric agreement is the morphological expression of two [ID]-features on a functional head which stands in an Agree relation with two interpretable [ID]-features. This configuration is brought about when a functional head mediates agreement between an immediately c-commanded [ID]-deficient reflexive and an

immediately c-commanding valued antecedent.

(3) **Anaphoric agreement**

Spell-out anaphoric agreement on a functional head when it stands in an Agree relation with two interpretable [ID]-features of the same value.

This thesis has also provided elements of analysis for many characteristics of the anaphors studied here, allowing for larger theoretical and typological conclusions. I have shown that in languages such as French or Swahili, binding of reflexive anaphors is not only the product of agreement between the anaphor and the antecedent, but has to be mediated by a reflexive voice head (v_{REFL}), following the line of [Ahn \(2015\)](#); [Kratzer \(2009\)](#); [Schäfer \(2017\)](#). This voice head accounts for many of the properties of the anaphors in question, including their local subject-orientation, transitivity/agentivity of the reflexive construction (contra the received wisdom for French) or the availability of anaphoric agreement. This insight meets that of [Reinhart and Reuland \(1993\)](#), who proposed that while all anaphors are referentially dependent (translated as [ID]-deficiency in my account), some of them additionally lack a reflexivizing function, which I propose is provided by reflexive voice heads.

My account also makes claims regarding the internal syntax of pronouns and anaphors, claiming that only weak pronominals, i.e. pronominals lacking a D head, are subject to [ID]-licensing requirements. This predicts that only weak 1st/2nd person pronouns and weak anaphors of the SE or *pro* type have the external syntax argued for in this thesis. In the case of 1st/2nd person, this is because D heads function as deictic centers and host valued [ID]-features standing for the speaker and the addressee. In the case of reflexives, this can be taken to stem from the fact that weak anaphors are selected by reflexive voice heads, which come with their own syntactic requirements that trigger PCC-like restrictions. This in turn has implications for the typology of anaphors across languages, as (i) not all anaphors are bound via a voice head and (ii) not all anaphors necessarily have unvalued [ID]-features. This reinforces the claim that not all anaphors are created equal, be it featurally or structurally ([Déchaine & Wiltschko 2002, 2017](#); [Spathas 2017](#); [Sundaresan 2020](#)).

Finally, a further implication of the account I developed concerns the role of phase heads in referential dependencies. C, v and D heads are identified as being able to function as speech act centers ([Bianchi 2006](#); [Gruber 2013](#); [Ritter & Wiltschko 2014](#); [Speas & Tenny 2003](#)) and as loci for grammatical reference-tracking mechanisms such as anaphoric agreement. This crucial role of phase heads in the encoding of referential information directly relates to ideas put forth in works by [Hinzen \(2006, 2012\)](#); [Hinzen and Sheehan \(2013\)](#); [Sheehan and Hinzen \(2011\)](#) who identify phase heads and phase edges as the bearers of referential content, as opposed to phase interiors which have more concep-

tual/predictional content. Albeit far from solving the debate as to what the phasal nature is of v and D heads, my findings at the very least suggest that C, v and D fulfill similar functions as far as reference tracking is concerned.

Directions for future research

In developing a theory of person licensing, this thesis has predominantly focussed on person effects in ditransitives and on syntactic interactions between objects and functional heads that are low in the clausal spine (v). My account of person licensing by speech act centers located on phase heads should also be able to account for person effects beyond the v level. While I have superficially addressed C/T level person effects such as inverse/direct systems, person-based split ergativity or DOM (in sections 4.3.3, 8.3, and 9.3), it remains to be seen to which extent the theory developed here could successfully be applied to such phenomena. In particular, inverse/direct alternations and DOM pose serious challenges to PERSON-based theories of person licensing, as licensing requirements also concern other items than 1st/2nd person, for instance based on their information-structural status (e.g. topicality or definiteness) or semantic characteristics such as animacy. These could theoretically be better accommodated for in a φ -indifferent, [ID]-based account such as the one I propose. However, further research is needed to work out if and how the cross-linguistic parametrization of the class of items subject to licensing requirements based on where they rank on various scales (represented below) could be universally translated into a binary distinction between valued and unvalued [ID]-feature.

- (4)
- a. *Saliency scale*
1st/2nd person > proximate > obviative > inanimate (Bruening 2005:2)
 - b. *Animacy/person scale*
First or second person > third-person pronoun > name > human > animate
> inanimate (Kalin 2018:113)
 - c. *Specificity/definiteness scale*
Pronoun > name > definite > specific > nonspecific (Kalin 2018:113)

A further dimension of this thesis that warrants further investigation is the relationship between [ID] and φ -features. In the account developed here, I have taken [ID] and φ -features to be fully independent and orthogonal to each other. They only constrain each other indirectly, by means of the presuppositional contribution of φ -features (Heim & Kratzer 1998; Sudo 2012): an [ID]-feature indexing the speaker of the utterance and a 2nd person φ -feature on the same pronoun should lead to a mismatch at LF, since the latter introduce a presupposition that that pronoun refers to the addressee while the [ID]-features indicate that it refers to the speaker. However, while ruled out at LF, these

mismatches should be syntactically acceptable, and furthermore, since presuppositions are cancellable, we expect that there should indeed exist grammatical cases of such mismatches. Phenomena such as imposters (Collins & Postal 2012), whereby a 3rd person DP can be used to refer to the speaker or the addressee, monstrous agreement and indexical shift, whereby a 1st/2nd person form can be employed indexing to non-participant, and other instances of semantic agreement (of the type studied by Smith 2015, 2017) are expected to constitute privileged grounds to study the possibility to develop a theory of form/reference mismatches in terms of φ /ID mismatches. This research avenue could represent a rich field of application for referential [ID]-features beyond binding and person licensing and within a broader syntactic theory of reference.

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