Aspects of Argument Licensing

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Dedicated to the memory of James Franklin Pyles (December 13th, 1982–June 24th, 2004)

> *"However, I consider my life worth nothing to me, if only I may finish the race and complete the task the Lord Jesus has given me – the task of testifying to the gospel of God's grace."*
>
> *Acts 20:24*

Aspects of Argument Licensing

ABSTRACT

This thesis reexamines the distribution of arguments in different languages, proposing that Case itself is not universal, but a realization of an underlying principle of *Argument Licensing*. I claim that arguments must be syntactically licensed (i.e. by Agree) but that the features by which arguments are licensed can vary between languages. I discuss in detail the realization of Person Licensing in Ojibwe in the absence of Case, as well as in other languages showing Person Restrictions. Argument Licensing facilitates a deeper understanding of the principles that underlie arguments and their behaviour in the syntactic derivation, without being restricted by the exact realization of Case alone.

I first present a detailed analysis of Ojibwe verbal morphology, focusing on the complex Inverse System and verbal *theme-sign* suffixes that I claim encode the person (π) features of multiple arguments (see also Bloomfield 1957; Rhodes 1994; McGinnis 1999; Bruening 2001, 2009). I adopt the notion of Cyclic Agree of a π-probe on *v* with multiple arguments from Béjar & Rezac (2009), and posit morphosyntactic π-features (e.g. Harley & Ritter 2002) organized by entailment relations (see Cowper 2005). I revise the mechanics of Cyclic Agree to fully account for the Ojibwe data, including apparent intransitive morphology on a transitive verbal complex and the conjunct morphology found in embedded clauses. I claim that Person Restrictions (i.e. the Strong Person-Case Constraint, Bonet 1991) in Ojibwe ditransitives are accounted for by Cyclic Agree and the requirement of *Person Licensing* (i.e. π-features on arguments must enter an Agree relation). I argue that Person Restrictions are generally derived by a need for Person Licensing, and that similar restrictions in French, Spanish, Basque, Icelandic and other languages directly relate to the derivation of the Ojibwe Inverse System by Cyclic Agree with *v* (related approaches found in Anagnostopoulou 2003, 2005; Béjar & Rezac 2003; Adger & Harbour 2007; Heck & Richards 2010).

I further claim that Ojibwe is a caseless language, indicated by a lack of Case phenomena (see Ritter & Rosen 2005; see also related work in Ritter & Wiltschko 2004, 2007, 2010), and that Ojibwe arguments are subject to Person Licensing in the absence of Case. I claim that Case and Person Licensing are distinct realizations of the underlying principle of Argument Licensing (a generalized version of the Case Filter), and that Person Licensing is identified by a bundle of properties relating to the checking of π-features that are not shared with a standard view of Case. My view of licensing allows for a three-way typology where a language may license arguments by Case, Person, or by both as in Romance languages that have Case phenomena as well as Person Restrictions. I discuss a range of data that fall under my view of Person Licensing centered on *v*, including the Person Case Constraint, psych verb constructions and split-ergativity by person.

My main proposal is that Case itself is not a universal of human language but is instead a robust realization of an underlying universal of *Argument Licensing*. I claim that my approach to the distribution of arguments achieves better coverage of the data by allowing for greater cross-linguistic variation that is unified at a deeper level by the principle of Argument Licensing.

RÉSUMÉ

Cette thèse examine la distribution des arguments dans différentes langues, en proposant que le Cas en soi n'est pas universel, mais la réalisation d'un principe sous-jacent de *Licence d'Argument*. Je maintiens que les arguments doivent être licenciés syntaxiquement (par exemple par Accord) mais que les traits par lesquels les arguments sont licenciés peuvent varier d'une langue à l'autre. Je discute en détail la réalisation de Licence de Personne en ojibois en l'absence de Cas, de même que dans d'autres langues qui font preuve de Restrictions sur Personne. La licence de l'argument facilite une meilleure connaissance des principes qui sous-tendent les arguments et leur comportement lors de la dérivation syntaxique, sans être restreint au seul Cas.

Je présente d'abord une analyse détaillée de la morphologie verbale de l'ojibois dans le Système Inverse aussi bien que dans les intransitives et l'ordre conjoint, en me concentrant sur les suffixes thème–signe dont je maintiens qu'ils encodent les traits de multiples arguments de la personne (π) (voir également Bloomfield 1957; Rhodes 1994). Je révise la notion d' Accord Cyclique de Béjar et Rezac (2009) et je stipule des traits-π morphosyntaxiques (Harley & Ritter 2002) organisés par des rapports d'implication (Cowper 2005). Je maintiens que Accord Cyclique dérive également en ojibois de Restrictions sur Personne en conjonction avec *Licence de Personne* des arguments. Je soumets que Restrictions sur Personne en français. espagnol, basque et islandais peuvent également être dérivées par le système de Accord Cyclique et Licence de Personne (voir aussi Anagnostopoulou 2005; Adger & Harbour 2007; Heck & Richards 2010).

Je maintiens en outre que l'ojibois est une langue sans cas, tel qu'indiqué par le manque de phénomène casuel (Ritter & Rosen 2005), et que les arguments en ojibois sont sujets à Licence de Personne en l'absence de Cas. Je maintiens que Cas et Licence de Personne sont des réalisations distinctes du principe sous-jacent de Licence d'Argument, et que Licence de Personne est identifié par un groupe de propriétés qui ne sont pas partagées par une vision standard de Cas. Ma façon de voir la licence permet une typologie tripartite dans laquelle une langue peut licencier les arguments par Cas, Personne, ou par les deux comme dans les langues romanes qui possèdent les phénomènes de Cas de même que Restrictions sur Personne.

Ma proposition principale est que Cas en soi n'est pas un trait universel des langues humaines mais que, au lieu, il consiste en une réalisation robuste d'un trait universel sous-jacent de *Licence d'Argument*. Je maintiens que mon approche à la distribution des arguments s'applique à un plus grand nombre de données en permettant une plus grande variation translinguistique qui est unifiée à un niveau plus profond par le principe de licence d'Argument.

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Abbreviations

π	person
21	first person inclusive
√	root
1 / 1st	first person
2 / 2nd	second person
3 / 3rd	third person
ABS	absolutive
ACC	accusative
anim	animate
AP	antipassive
Appl	applicative
C	complementizer
CCA	Cross-Clausal Agreement
conj	conjunct
DAT	dative
DECL	declarative
dft	default
DIR	direct
DUR	durative
EA	external argument
EMPH	emphatic particle
ERG	ergative
exclu	exclusive
f.obv / F.OBV	further obviative
fem	feminine
FUT	future
FV	final vowel
GEN	genitive

IA	internal argument
IC	initial change
inan / INAN	inanimate
inclu	inclusive
IND	indicative
INF	infinitive
INTR	intransitive
INV	inverse
L / (L)	local
LOC	locative
masc	masculine
MOD	modal
NEG	negative
NL / (NL)	non-local
NOM	nominative
NONFUT	non-future
NPST	non-past
obj	object
obv / OBV	obviative
OBVP	plural obviative
PART	partitive
PARTOBV	participle obviative agreement
PCC	Person-Case Constraint
PDUB	preterit dubitative
PERF	perfective
pl	plural
PRES	present
prox / PROX	proximate
RE	referring expression
RECIP	reciprocal
REFL	reflective

SAP	Speech Act Participant (i.e. first or second person)
sg	singular
subj	subject
TRANS	transitive
VAI / AI	animate intransitive verb
vbl	variable
VII / II	inanimate intransitive verb
VTA / TA	transitive animate verb
VTI / TI	transitive inanimate verb
wh	interrogative (wh-agreement)
X	unspecified Agent

Chapter 1 Introduction

Arguments are universal across languages, and the question of argument licensing is core to the syntax of each language. Arguments must be licensed, thematically by the assignment of theta-roles, and syntactically by the assignment of Case. Abstract Case is assumed to be active in every human language (e.g. Chomsky 1981, 1993), and is realized in some languages morphologically (nominal marking, verbal agreement) but in other languages is only clearly identified by its syntactic effects. The core tenet of Case is the Case Filter, requiring that all DP arguments be properly licensed in the syntactic derivation, and the effects of Case can be seen when the Case Filter is violated, resulting in ungrammaticality. However, work on a wider range of unrelated languages indicates that the effects of Abstract Case are not found in every language, and that Abstract Case in a traditional sense cannot be reasonably assumed to be active in those languages. A common approach to the apparent lack of Case is to suggest extensions or varying forms of Case Theory, achieving the syntactic licensing of arguments by some kind of Case valuation.

This thesis questions the universality of Case itself, instead opting for a view of *Argument Licensing* that underlies Case, and is not instantiated specifically as Case in every language. I argue that a better understanding of certain languages is achieved when one does not assume arguments must be Case Licensed, but rather that they must be syntactically licensed. The central language under discussion in this thesis is Ojibwe, a Central Algonquian language that I argue shows no evidence for Abstract Case either in the morphology or in the syntax. I argue not that Ojibwe lacks the syntactic licensing of its arguments, but rather that arguments are restricted by a system other than Case, which I claim is in fact Person Licensing. I propose that the principle of *Argument Licensing* in (1) is universal, and that Case is a realization of that principle in many languages, but it can also be realized as Person Licensing and other systems.[1]

[1] A related view is presented by Ritter & Wiltschko (2004, 2007, 2010) who argue that the content of the Inflectional head is not tense in every language, but can be Person in Blackfoot.

(1) **Argument Licensing**

A DP bearing a (certain type of) feature (or feature complex), [β], must enter into an Agree relation with a head bearing an unvalued feature [uβ].

The realization of Argument Licensing in a language depends on the value of a syntactic feature [β], which can be [Case]/[D] (following Chomsky 1993) in a Case Licensing Language, but also [π] (person features) in a Person Licensing language, as it is for Ojibwe. The goal is to reconsider the syntactic licensing of arguments across languages to better understand those languages that cannot be straightforwardly accounted for under Case Theory.

I present a detailed analysis of Ojibwe verbal morphology, focusing on the complex Algonquian Inverse System as realized in Ojibwe, as well as verbal paradigms beyond that system. I claim that the verbal *theme-sign* suffix in Ojibwe must be analyzed as complex person agreement, and I account for it with a version of Cyclic Agree (Béjar & Rezac 2009). I further argue that the kind of Agree that derives the Inverse System also predicts certain Person Restrictions, such as the Strong Person-Case constraint that I show is prevalent in Ojibwe ditransitives. Ojibwe, along with other languages (for example, in the Romance family), shows a deep sensitivity to the person specifications of clausal arguments, and I claim that Ojibwe requires the licensing of its arguments by their π–features. This licensing is centered around the syntactic head *v*, that I claim spells-out the theme-sign morphology which encodes the π-features of both the external and highest internal argument of a ditransitive. My account of the Ojibwe Inverse System extends to Person Restrictions in ditransitives, such as the Person-Case Constraint in French and Catalan, psych verb constructions found with Spanish and Icelandic Quirky arguments, and is also harmonious with the patterns found in split-ergative languages sensitive to person features like Dyirbal and Halkomelem Salish.

I argue that Person Licensing shows distinct properties from Case Licensing, seen clearly in Ojibwe in the absence of Case, but that Case and Person can also co-exist in a language. I further suggest other possible realizations of Argument Licensing with other featural content for [β] in (1) (e.g. Class or Gender for Bantu languages). I argue that abstracting away from Case as ultimately universal allows for greater coverage of

languages that lack canonical Case phenomena and also allows for a deeper understanding of argument distribution. The work done by the Case Filter is encoded in Argument Licensing, but allows for varieties of licensing with their own bundles of properties and systematic realizations. Argument Licensing facilitates a deeper understanding of the principles that underlie arguments and their behaviour in the syntactic derivation, without being held back by the exact realization of Case alone.

1.1 Notions of Argument Licensing and Person

In this thesis I claim that Case in a language like English has distinct properties from Person Licensing in a language like Ojibwe. Argument Licensing does not circumvent the need for theta-licensing, and the Theta Criterion remains as semantic licensing. However, the syntactic heads that license arguments and the requirements for licensing differ based on whether a language is sensitive to Case, Person, or both, illustrated in the table in (2).

(2) **Case vs. Person Licensing**

Properties:	**Case [D]**	**Person [π]**
Theta-Criterion	✓	✓
Licensing [β] obligatory	✓	✓
One DP per licensor	✓	✗
One licensor per DP	✓	✗
All DPs undergo licensing	✓	✗

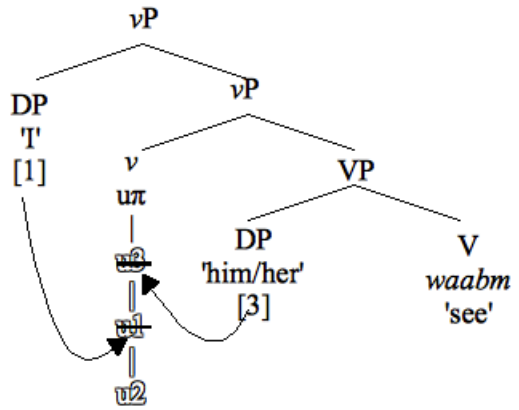
I derive the different properties of Case and Person from their nature as features which are shown in (3). Case is subject to the licensing of [D] features, which are simplex, and Case checking involves the assignment of a Case value. On the other hand, Person is predicated on [π] which can be a complex, entailed set of features that are valued or interpretable in the syntax (and does not get valued).

(3) Comparison of Argument Licensing features

	Case Licensing	**Person Licensing**
[β]=	[D]	[π]
Type of feature	simplex; categorial	complex; entailed set
Value on argument	unvalued ([D, uCase:__])	valued/interpretable
Argument defining	Yes	No

I argue that the main source of differentiation between Person and Case is the locus of Person Licensing on little *v*, that merges above the VP and introduces the external argument (4), which I claim bears a complex, entailed set of π-features. Because there are multiple features that can be checked on *v,* it can potentially Agree with more than one goal given that they are local. Chapter 2 discusses the complex morphology of the Ojibwe Inverse System where the verbal suffix called the *theme-sign* actually encodes the π-features of both the internal and external argument in a transitive clause. The checking of two arguments with the complex probe on *v* is sketched in (4).

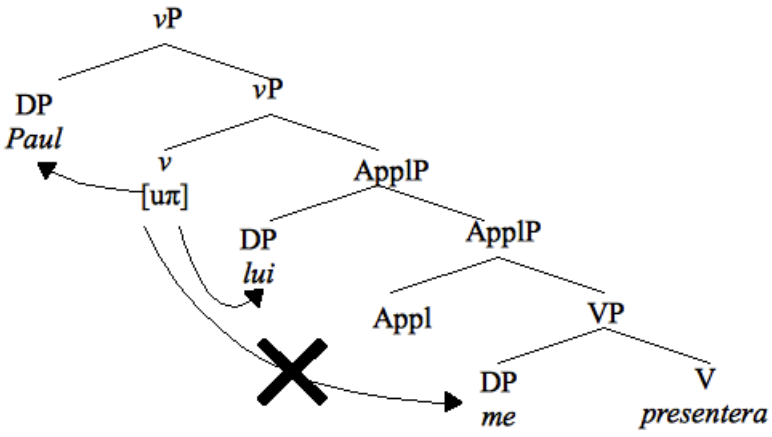
(4) Cyclic Agree with *v*



The fact that Person Licensing is centered on little *v* allows for the derivation of the Ojibwe theme-signs but also allows for an account of Person Restrictions found cross-linguistically, namely the Person-Case Constraint and variations thereupon. In ditransitive Double Object Constructions there are two DP arguments within the complement of little *v*. Due to strict locality, little *v* can only Agree with the highest internal argument (and the

subject), potentially leaving the π-features of the lower internal argument unlicensed, shown in (5) for a French ditransitive. The lower internal argument is restricted to 3rd persons, as relatively unspecified compared to 1st and 2nd person, and this restriction is the Person-Case Constraint.

(5) Person Licensing in a ditransitive



The Person-Case Constraint and other Person Restrictions are found in languages that require the π-features on their arguments to be licensed, but these restrictions are inactive in languages that only license their arguments by Case.

I do not consider Person to be parasitic on Case in all languages (although it may be in some) and I claim that languages can license their arguments by Person in the absence of Case or in addition to it. Such an approach more elegantly describes the behaviour of arguments in a language like Ojibwe, which cannot be analyzed by standard Case (e.g. because of the lack of Case/A-phenomena and case marking, Chapter 5) but shows robust Person sensitivities. We can see the properties of Person in the absence of Case in Ojibwe and this helps us understand the workings of Argument Licensing in other languages that do not so clearly show the underlying mechanics of Person in the morphology, or as it overlaps with Case. I propose that the view of argument distribution must move beyond Case as an absolute universal that continually changes its forms, and instead adopt principles that fit the wide variety of data concerning argument distribution cross-linguistically.

1.2 Distributed Morphology and the Minimalist Program

The analyses I present in this thesis generally follow the syntactic framework of the Minimalist Program (Chomsky 1993, 1995) and the morphological framework of Distributed Morphology (Halle & Marantz 1993).

1.2.1 The Minimalist Program

The syntactic derivations I assume appeal to the general tenets of the Minimalist Program initially put forward by Chomsky (1993, 1995), and whose application is discussed by Adger (2003). Here I briefly mention a few components that are relevant to the discussion in this thesis.

A derivation is created by instances of Merge and Move (or Internal Merge) where syntactic elements are added together to create new elements. These syntactic elements (or Lexical Items) bear features which can be interpretable or uninterpretable and that can trigger the Merge operation. Chomsky states that uninterpretable features must be deleted in the syntactic derivation before reaching the phonological and semantic interfaces, and this is achieved by uninterpretable features checking with matching features in the syntax. I assume Bare Phrase Structure, so that only contentful branches are shown in the trees representing derivations (e.g. no empty specifiers).

Of particular relevance is the operation of Agree that relates two syntactic elements that bear matching features, typically in an interpretable-uninterpretable pair [iF]-[uF] (although two uninterpretable features can also match and Agree, assumed by Chomsky for Case). Agree results from a matching relation between a probe P and a goal G in the context described in (6), where D(P) refers to the domain of the probe.

(6) Environment of Agree:

a. Matching is feature identity.

b. D(P) is the sister of P.

c. Locality reduces to "closest c-command."

(Adapted from Chomsky 1993:122)

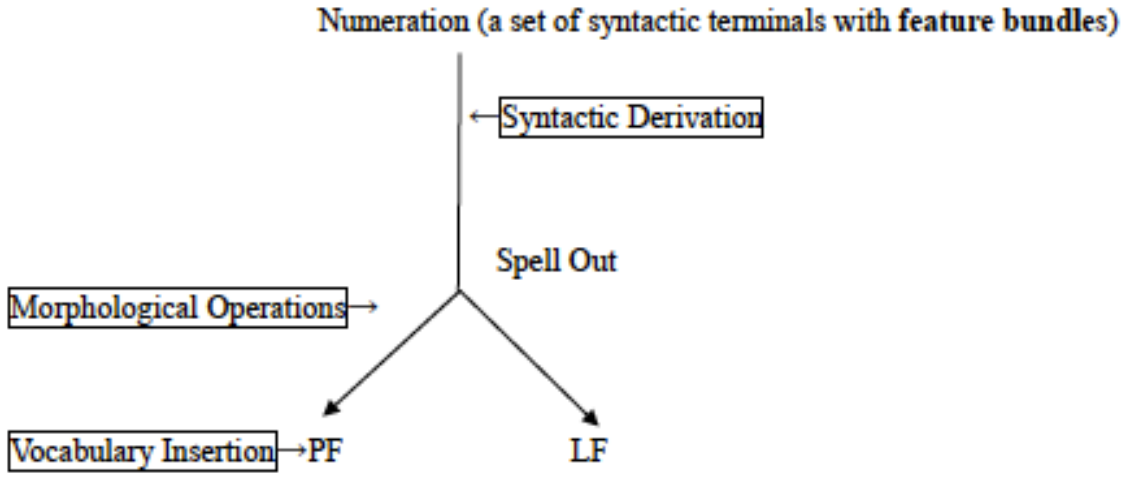
I appeal to a modified notion of Agree, called Cyclic Agree and proposed by Béjar & Rezac (2009),

1.2.2 Distributed Morphology

Distributed Morphology, as formulated by Halle & Marantz (1993), posits that the realization of morphology is determined at different levels of the grammar, namely in the syntactic and phonological components. The lexicon inputs the narrow syntax with elements that bear feature bundles and can be operated on in the syntax, but that do not yet have a phonological realization. When the syntactic component sends its derivation to the interfaces, the branch leading to the Phonological Form (PF) can perform morphological operations (i.e. Lowering, Local Dislocation, see Embick & Noyer 2001; Skinner 2009, for example) and assigns a phonological exponent to the syntactic elements.

The tree in (7) shows the distribution of morphology throughout the derivation: (i) The Numeration gives the input of elements made up of feature bundles to the narrow syntax; (ii) the Syntactic Derivation proceeds (here assumed following the Minimalist Program) with operations such as Merge, Move and Agree; (iii) Spell-Out sends the syntactic derivation to the phonological and semantic interfaces; (iv) on the PF side, morphological operations can adjust the order of syntactic terminals (e.g. Lowering); (v) Vocabulary Insertion assigns phonological material to the morphosyntactic elements and imposes a linear order on these elements.

(7) Distributed Morphology architecture (Adapted from Halle & Marantz 1993:114)



Of central importance to the discussion in this thesis is the correspondence between syntactic elements (i.e. terminals or heads) and their phonological realization. The rules of Vocabulary Insertion evaluate the feature bundles present on syntactic elements and determine which overt morphemes are to be inserted. For example, the ordered Vocabulary Insertion Rules in (8) determine which prefix an Ojibwe matrix verb will bear depending on the π-features present in a clause (e.g. [2], [1], rules used in Chapter 2.3.3). If the feature [2] is present then the first rule in (8) is satisfied and /g-/ will be spelled-out. If [2] is not present then the first rule is not satisfied, and the second rule may be triggered if there is a [1] feature. Note that if there is both a [2] and [1] feature, the rule referring to [2] will be chosen since it is ordered first. In the absence of any of the features specified by these two Vocabulary Insertion Rules, the elsewhere case will be triggered and /w-/ will then spell-out.

(8) Proclitic Vocabulary Insertion Rules

[2] ↔ /g-/

[1] ↔ /n-/

elsewhere ↔ /w-/ (Adapted from McGinnis 1995:2)

Vocabulary Insertion indicates a direct relationship between the features used in the syntactic derivation and the morphological output.

Another important aspect of Distributed Morphology relates to the *Mirror Principle* proposed by Baker (1985) in (9), which asserts a correspondence between the syntactic structure and the realization of morphemes in the surface form.

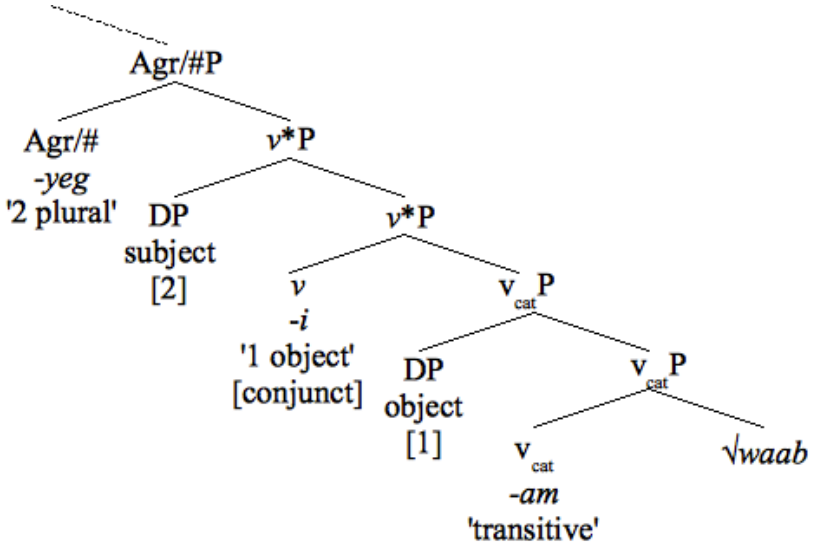
(9) The Mirror Principle (Baker 1985:375)
Morphological derivations must directly reflect syntactic derivations (and vice versa).

What the Mirror Principle proposes is that, in the simplest cases, the order of morphemes will directly relate to the order of syntactic elements they correspond to. The "Mirror" refers the inverse orderings of syntactic projections versus morphemes (derived by head movement by Baker 1985, 1988) in polysynthetic languages. Consider the Ojibwe example in (10) with the conjunct form (found in subordinate clauses)[2]. Supposing a syntactic structure like that in (10)b (e.g. following Larson 1988; Adger 2003), the morpheme order seen in (10)a is a mirror image of the syntactic structure. The root *waab* is the lowest in the syntax but first in the pronunciation of the verbal stem, followed by *-am*, which categorizes the root as a transitive verb (and introduces the object, see Pesetsky 1995; Marantz 1997), followed by *v** which introduces the subject and spells-out agreement with the object. The plural agreement suffix is the farthest from the root and is placed highest in the syntactic structure. Hence, it is assumed under Baker (1985, 1988) that there is a direct correspondence between syntactic structure and morphological composition, and that syntax and morphology are not two fully independent components of the grammar.

[2] The labels and analysis of this type of sentence will change in the discussion in following chapters. I choose the labels given in (10)b for clarity for the discussion of the Mirror Principle. Note that I assume that the categorizing head, v_{cat}, need not be the head introducing the external argument/subject, which I have labeled *v** in (10)b, and simply *v* elsewhere in this thesis.

(10) a. waab-am-i-yeg
see-trans-1obj-2pl
√-categorizing-v_{π}-#
'You(pl) see me (conjunct).'

b.



In Distributed Morphology, there is a basic correspondence between the position of an element in the syntactic hierarchy and its morphological position. The one-to-one correspondence between syntactic and morphological order can be disrupted by different operations, such as Lowering, Local Dislocation, Fusion or Fission of nodes, but the input to the phonological component is still the syntactic derivation. Hence, the null hypothesis for the form and position of morphemes is that they correspond to certain syntactic nodes, and that the relative position of morphemes in a stem reflects the syntactic hierarchy that acted as the input to PF. Apart from evidence to the contrary, I assume that morphemes (particularly those under discussion in Ojibwe) relate to specific syntactic positions, and that they are ordered relative to other morphemes in a complex word based on the hierarchy of syntactic nodes.

1.3 Note on Ojibwe

I discuss a large volume of data from Ojibwe and account for the range of theme-sign

suffixes and related morphology in this language. Ojibwe is a term for a collection of dialects of Eastern Algonquian languages, also called Anishinaabemowin and encompassing dialects denoted by Nishnaabemwin that include languages referred to as Odawa, Ottawa, Chippewa and Ojibway (Valentine 2001:1). Ojibwe dialects are spoken in Canada, in Quebec, Ontario and Manitoba, as well as parts of the United States, particularly in Michigan, Wisconsin and Minnesota. The data comes from texts and articles as well as my own field work conducted both with the Chippewas of Nawash First Nation in Cape Croker, Ontario, and with Kitigan Zibi, part of the Algonquian First Nation near Maniwaki, Quebec. Most of the data presented can be classified as Eastern Ojibwe, including data collected in Cape Croker, however other dialects are also represented, such as Odawa and Algonquin, spoken in Maniwaki. All my collected data belongs to the communities, who teach us their language and allow us to use data in our research.

Ojibwe is a polysynthetic or agglutinating language with complex verbal forms and largely optional nominals. It is generally a head marking language and has been identified as non-configurational (i.e. as defined by Hale 1983; Jelinek 1984), although current views question the non-configurational status (e.g. Tomlin & Rhodes 1992; Tourigny 2008). I introduce relevant aspects of Ojibwe grammar and their view within the discussions in this thesis. Invaluable resources on Ojibwe are found in Bloomfield (1957) and Valentine (2001), who provide vast descriptive coverage of the language.

The study of Ojibwe is made possible by the generosity and patience of the speakers and communities I have been fortunate enough to work with. The data is presented in agreement with the speakers' wishes, where the date and name or initials of the speakers are identified with an example.

1.4 Part One: Person Encoding in Ojibwe Morphology

Part One takes a detailed look at the morphology of the Ojibwe Inverse System, which shows an acute sensitivity to both π-features and the interaction between internal and external arguments in a clause. The agreement slots associated with the Inverse System are not describable by straightforward correspondences between grammatical function and π-feature specification, but vary dependent on which argument has a more highly

specified or marked π-feature with respect to the other argument. My first goal is to fully account for this complex agreement as a whole, where many previous accounts only cover a subset of the paradigm in question. I utilize the notion of Cyclic Agree by complex probes proposed by Béjar & Rezac (2009), and I develop details of organized morphosyntactic features (e.g. Harley & Ritter 2002), where π-features are related by entailment, or dependency, relations (see Cowper 2005). The use of these organized features and Cyclic Agree make predictions beyond the Inverse System, both within Algonquian and in unrelated languages. I connect the derivation of Inverse System suffixes to morphology in other verbal paradigms (i.e. intransitives, conjunct order). I also present data showing the Person-Case Constraint (Bonet 1991) is active in Ojibwe, and that it can be accounted for by an extension of Cyclic Agree, including the requirement that Person features be licensed in the syntax.

1.4.1 Chapter 2: The Core Inverse System

Chapter 2 presents a detailed account of the Ojibwe Inverse System as realized in Ojibwe. I focus on the derivation of *theme-sign* suffixes, which can be *direct* or *inverse* and indicate the relative ranking of person (π-)features between the internal and external argument. I claim that theme-sign suffixes are complex person agreement derived by the Cyclic Agree of two clausal arguments with a single π-probe (see Béjar & Rezac 2009). The analysis I give is summarized in (11), appealing to Cyclic Agree, organized π-features, and a specific view of how π-features can be checked on a complex probe.

(11) Ojibwe theme-signs derived by Cyclic Person Agree

a. Theme-signs are the morphological spell-out of *v*.

b. *v* bears a complex probe of organized π-features that can Cyclically Agree with a goal (i.e. argument) in its complement and specifier.

c. Arguments bear contrastively underspecified π-features.

d. π-features matched on *v* mark/activate (but do not match) entailed features.

I argue that my approach to Ojibwe theme-sign suffixes as complex π-agreement fully derives these morphemes in the Inverse System and makes correct predictions about theme-signs in other verbal paradigms and restrictions on certain argument combinations.

1.4.2 Chapter 3: Implications of Cyclic Agree in Ojibwe Morphosyntax

Chapter 3 discusses predictions and extensions of my Cyclic Agree analysis of the Ojibwe Inverse System, accounting for theme-signs across verbal paradigms. I account for the appearance of intransitive morphology on certain transitive stems as well as theme-signs in the conjunct order that show a different correspondence than the core Inverse System. I further discuss apparent syntactic effects of the Inverse System within Algonquian languages that Bruening (2001, 2005, 2009) claims indicate the syntactic inversion of clausal arguments in Passamaquoddy (Eastern Algonquian). I investigate the Ojibwe data, showing that not all the effects found in Passamaquoddy generalize across Algonquian, and I present an alternative view of the data apart from Bruening's A-movement.

1.4.3 Chapter 4: Ojibwe Ditransitives

Chapter 4 introduces ditransitives within the transitive animate paradigm in Ojibwe, and I show that the use of direct and inverse theme-signs is derived by Cyclic Agree, agreeing with the π-features of the external argument and highest internal argument. Further, ditransitives in this language are subject to the Strong Person-Case Constraint, which restricts the lowest internal argument to 3rd person specifications only, and directly connects to other languages that also exhibit the Person-Case Constraint (e.g. French, Italian, Greek, Chinook). I provide an account of the Person-Case Constraint in Ojibwe by extending Cyclic Agree, which I argue derives the complex π-agreement that spells-out the theme-sign suffixes. I claim that this kind of Agree is strictly local because of a sensitivity to Defective Intervention (i.e. a probe cannot Agree with a goal across another goal). I assume, alongside other accounts of the Person-Case Constraint, that some languages require π-features be licensed in the syntax by entering an Agree relation, and Person Restrictions arise when certain π-features, like 1st and 2nd person, remain unlicensed.

1.5 Part Two: Person Licensing

Part Two discusses how DP arguments are licensed in different languages, looking at the status of Case cross-linguistically and how Person feature checking complements and

overlaps with licensing by Case features. I make the claim that there is a universal of Argument Licensing that underlies Case Licensing but that can also be realized as Person Licensing, either in place of or in addition to Case. Both Case and Person Licensing are subject to a general requirement that arguments undergo syntactic licensing, however each type of Argument Licensing has its own bundle of properties. I argue that this view of Person Licensing as a realization of Argument Licensing rather than of Case itself allows for a more elegant view of argument distribution in different languages. I claim that Algonquian languages not only license their arguments by person features, but unlike English they do not license their arguments by Case. I show that Ojibwe and some other Algonquian languages do not have evidence for Abstract Case at all, since these languages lack Case marking and A-phenomena correlated with standard Case (Ritter & Rosen 2005). Interestingly, Romance languages, among others, show a range of Person Restrictions alongside typical Case phenomena. I posit that these languages realize Argument Licensing relative to both Case and Person features. This view of Case and Person creates a three-way typology where a language may license arguments by Case or Person, or by both.

1.5.1 Chapter 5: Argument Licensing

Chapter 5 addresses the question of how the distribution of arguments is controlled in the syntax of each language. Arguments must be licensed: semantically by the assignment of their theta-roles, and syntactically by the assignment of some manner of Case – inherent or structural (e.g. Chomsky 1981). The usage of Case assignment in the literature increasingly diverges from the traditional notion given in Chomsky (1981, 1986) to account for wider sets of data cross-linguistically. Chapter 5 lays out a basic idea of Case Licensing apart from more complex versions of Case used to cover argument distribution falling outside that expected by Standard Case Theory (e.g. Chomsky 1981). I show that Ojibwe (and potentially Algonquian) lacks any evidence for Abstract Case, and I propose that Case itself is not primary, but is a common realization of the underlying universal of Argument Licensing, which in turn can be realized by Person Licensing and not just by Case.

1.5.2 Chapter 6: Person Licensing

Chapter 6 introduces a formal notion of *Person Licensing* that can control the syntactic distribution of arguments in the absence of (or in addition to) Case Licensing. I argue that Person and Case should be considered independently as they exhibit different bundles of properties, but they share the same function of Argument Licensing. I claim that the characteristics of each kind of licensing are based on the kind of feature used to license an argument, namely the value of [β] in (1). I look at Case as licensing and valuing [uCase] associated with a [D] feature on an argument by an appropriate Agree relation (see Chomsky 1993), while Person Licensing is instead relativized to [π] features. [D] and [π] are two very different types of features even though both relate directly to arguments, and I propose that the properties of Case and Person Licensing differ because of the nature of the features they are relativized to. I propose that the universal formulation of Argument Licensing (1) remains constant, but that the syntactic realization can differ, discussed for Case and Person, dependent on the character of each possible type of [β] feature.

1.5.3 Chapter 7: Person Restrictions

Chapter 7 investigates Person Restrictions beyond Ojibwe, claiming that the Person-Case Constraint and psych verb restrictions in other languages relate to the Cyclic Agree of π-features. I consider languages with Person Restrictions to be subject to the requirement of Person Licensing, where restrictions arise in the event of unlicensed π-features on DP arguments. Ungrammaticality resulting from the violation of a Person Restriction is parallel to ungrammaticality induced by a violation of the Case Filter. Many of the languages discussed in this Chapter are uncontroversially Case Licensing languages (e.g. French), but I claim that a language with Person Restrictions shows a need to syntactically license the π-features on its arguments in addition to assigning Case values. The two types of licensing need not be mutually exclusive, nor are they dependent on each other.

1.6 Chapter 8: Extensions of Licensing and Conclusions

Chapter 8 discusses some extensions of person agreement and Argument Licensing. I first discuss the morphology of the Ojibwe Unspecified Agent Construction (introduced in

Chapter 5), claiming that the theme-signs in this construction are also person agreement derived by Cyclic Agree. I then discuss some potential realizations of Argument Licensing outside of Case and Person Licensing. Bantu languages have been argued to be caseless (Diercks 2011) but arguments are still subject to syntactic licensing that takes on a different form from Standard Case (Halpert 2011). I suggest Bantu shows the possibility of Argument Licensing by Class or Gender features. Similarly, Icelandic and Finnish (among others) have differential object marking depending on the aspectual specification of a clause. I present the possibility of Aspect Licensing in certain languages. Finally, Chapter 8 concludes the thesis.

Part One Person Encoding in Ojibwe Morphology

The morphology of the Ojibwe Inverse System shows an acute sensitivity to both π-features and the interaction between internal and external arguments in a clause. The agreement slots are not describable by straightforward correspondences between grammatical function and π-feature specification, but vary dependent on which argument has a more highly specified π-feature with respect to the other argument. My first goal is to fully account for this complex agreement as a whole, where many previous accounts only cover a subset of the paradigm. I utilize the notion of Cyclic Agree on complex probes proposed by Béjar & Rezac (2009) and develop details of organized morphosyntactic features (e.g. Harley & Ritter 2002), where π-features are related by entailment relations (see Cowper 2005). Allowing for a fully specified geometry of π-features on a probe obviates problems with oversimplifying the feature set relating to the Inverse System, and that complicate the account of data at the edges of that paradigm. I further discuss certain issues with Béjar & Rezac's (2009) proposal, namely the use of an *insertion* operation not equivalent to Merge, and show that my analysis better covers the Ojibwe data. The use of these organized features and Cyclic Agree makes predictions beyond the Inverse System, both within Algonquian and in unrelated languages. I solve a long-standing puzzle in the Ojibwe literature, where transitive verbs with an inanimate internal argument share morphology with intransitive verbs, by appealing to the same Cyclic Agree present in the Inverse System and the representation of inanimates as lacking all π-features. I also present data showing the Person-Case Constraint (Bonet 1991) is active in Ojibwe, and that it can be accounted for by an extension of Cyclic Agree including Defective Intervention and the requirement that Person features be licensed in the syntax. The use of the complex π-probe on *v* as a Person licensor will be important for the rest of this thesis, as I claim in Part Two that languages with Person Restrictions share a need to license π-features on arguments with *v*. My analysis provides better coverage of the theme-sign morphology that is usually connected with the Ojibwe

Inverse System, and makes predictions about how Person features are checked in the syntax.

Part One is organized as follows. Chapter 2 discusses the Inverse System, as realized in Ojibwe, proposing a detailed view of π-feature organization via entailment present on little *v*. I discuss the proposal of Béjar & Rezac (2009), adopting the spirit of their account but arguing for certain changes to the mechanics. Chapter 3 looks at data from Ojibwe (and some other Algonquian languages) beyond the Inverse System, illustrating how my proposal straightforwardly extends to the account of theme-sign suffixes in other verbal paradigms, such as certain intransitives and the conjunct order, and relates to certain syntactic data associated with the Inverse System (Bruening 2001, 2005, 2009). Chapter 4 discusses ditransitives in Ojibwe that also show the Inverse System and certain Person Restrictions involved in those constructions that will relate directly to Person phenomena cross-linguistically in Part Two.

Chapter 2 The Ojibwe Inverse System

This Chapter presents a detailed account of the Algonquian Inverse System as realized in Ojibwe. I focus on the derivation of *theme-sign* suffixes, which can be *direct* or *inverse* and indicate the relative ranking of person (π-)features between the internal and external argument. I claim that theme-sign suffixes are complex person agreement derived by the Cyclic Agree of two clausal arguments with a single π-probe (see Béjar & Rezac 2009).

Section 2.1 introduces the morphology of the core Inverse System as realized in Ojibwe, and the impact of ranked person specifications on arguments. In section 2.2, I put forward a view of person features in Ojibwe as robust, organized by entailment relations, and relevant for the syntactic derivation of the Inverse System. I argue that π-features are represented in a feature geometry that must be sufficiently detailed to derive the whole Inverse System paradigm, which is sensitive to 1st and 2nd persons as well as different types of 3rd persons.

Section 2.3 presents my analysis of the Ojibwe Inverse System, appealing to *Cyclic Agree* (Béjar & Rezac 2009) in combination with the view of entailed π-features present on a complex probe on *v*. Cyclic Agree allows for multiple argument goals to Agree with a single head or probe, which is in turn spelled-out as the theme-sign suffix that encodes the π-features of both arguments in a transitive. Section 2.4 further discusses the Béjar & Rezac realization of Cyclic Agree and their analysis of the Inverse System morphology in Ojibwe. Although I adopt the notion of Cyclic Agree, I employ different details, which make certain unique predictions from Béjar & Rezac. Section 2.5 concludes the Chapter.

2.1 The Core Inverse System

Algonquian languages are well-known for the morphological paradigm known as the *Inverse System* (discussed for Ojibwe, McGinnis 1995, 1999; Potawatomi, Halle & Marantz 1993; Plains Cree, Dahlstrom 1991; Passamaquoddy, Bruening 2001, 2009; Western Naskapi, Brittain 1999; Menominee, Macaulay 2005; among many others). The Inverse System refers to the complex morphology of the Transitive Animate verbal paradigm (VTA, where both arguments are animate; Inverse beyond Algonquian

languages discussed by Klaiman 1992; Zúñiga 2006). For my discussion of Ojibwe, the two morphemes of interest are the Person proclitic, and what is traditionally known as the *theme-sign* suffix, which indirectly reflects the π-features and relative grammatical function of the clausal arguments. In this section I will focus on the independent order, found in plain matrix clauses, which is the core environment for the discussion of the Inverse System.[3]

The Ojibwe Inverse System is concerned primarily with two morphemes: the person proclitic and the theme-sign suffix, described next and illustrated in (2)-(4). Of central concern to this discussion will be the theme-sign suffix.

The verbal person proclitic agrees with the clausal argument bearing the (descriptively) highest-ranking Person (π-)feature, as per the Participant Hierarchy in (1). This morpheme has no preference for the subject or object, or other grammatical function.[4]

(1) Participant Hierarchy: 2 > 1 > 3 prox(imate) > 3 obv(iative) > Inanimate
(Adapted from Valentine 2001:268)

The form of the theme-sign suffix is dependent on the person feature specification and relative Participant Hierarchy ranking of the internal (IA) and external (EA) arguments. The theme-sign is *direct* (DIR) when the external argument is higher ranked (or, equivalently, bears a more specific π-feature) than the internal argument. In the direct case, for example (2)a, the EA corresponds with the form of the proclitic since it is highest ranked. The other possibility is that the theme-sign is *inverse* (INV), for example (2)b, where the ranking of the EA and IA is switched such that the structurally lower IA bears more specific π-features and is encoded in the proclitic over the structurally higher EA. In both examples in (2) the proclitic is *n-* '1st' since 1st person outranks 3rd. The

[3] I will account for the other verbal paradigms not traditionally associated with the Inverse System in Chapter 3.

[4] Macaulay (2005) discusses how the plural suffixes suggest a 1>2 ranking for π-features in some Algonquian languages and this ranking is discussed in Chapter 3.2.2.

theme-sign is *–aa* 'direct' in (2)a because 1st person is also the structurally higher external argument, and *–ig(w)* 'inverse' in (2)b when 1st is instead the lower internal argument.

(2) a. n-waabm-aa
1-see-DIR(NL)
'I see him/her.'
b. n-waabm-ig
1-see-INV(NL)
'He/she sees me.'(Valentine 2001:270)

The theme-sign suffix tracks the relative ranking of the IA and EA but must also encode the π-features of both arguments, which becomes apparent when the *Local* (L) theme-signs are considered. When at least one of the relevant arguments is 3rd person the *Non-Local* (NL) theme-signs are used (seen in (2)). But when both arguments are Speech Act Participants (SAPs, i.e. 1st and 2nd person) another set of local suffixes is inserted, shown in (3). In Ojibwe (and many other Algonquian languages), 2nd person outranks 1st person giving the proclitic *g-* '2nd person' in (3). (3)a is local direct when the 2nd person is the EA and 1st person is the IA. (3)b is local inverse when the person specifications of the arguments are swapped.

(3) a. g-waabam-i
2-see-DIR(L)
'You see me.'
b. g-waabm-in
2-see-INV(L)
'I see you.' (Valentine 2001:270)

Note that the hierarchy in (1) includes more than one type of 3rd person, namely *proximate* (prox) and *obviative* (obv), described as topic/foregrounded and backgrounded arguments respectively (see Grafstein 1984; Rhodes 1991; Valentine 2001).[5] Proximate

[5] Inanimates will be discussed in Chapter 3.1.1.

outranks obviative, giving the direct/inverse distinction even when both relevant arguments are 3rd person, illustrated in (4). Obviative arguments trigger *–an* 'obviative' agreement on the verb, sometimes phonologically realized as *–on* or *-n*.

(4) a. w-waabm-aa-n
3-see-DIR(NL)-OBV
'He(prox) sees him(obv).'
b. w-waabm-igo-on
3-see-INV(NL)-OBV
'He(obv) sees him(prox).' (Valentine 2001:272)

The full set of Transitive Animate theme-sign suffixes is given in (5), and these are the theme-signs of the core Inverse System. Given that the system uses both local and non-local morphemes, it is the case that the theme-sign must be able to access the π-features of two arguments. For example, the theme-sign must encode when both arguments are SAPs so that the local theme-signs will be used, instead of the non-local ones which indicate the presence of a 3rd person.

(5) Ojibwe theme-signs:

	Direct	Inverse
Local (L)	*-i*	*-in(i)*
Non-local (NL)	*-aa*	*-igw* (also *-igo, -ig*)

The core Inverse System, which occurs in the transitive animate verbal paradigm, is summarized in (6), with external argument specification in the left column and internal arguments in the top row.[6] Again, proclitics agree with the highest-ranking argument

[6] Traditionally transitive animate verbs (VTA) are described as transitive verbs with animate internal arguments, as opposed to transitive inanimate verbs that have inanimate internal arguments but animate external arguments. What this characterization implies is that a VTA form can involve an inanimate external argument (e.g. 'It saw me.') given that the internal argument is animate. Valentine (2001) also lists VTA forms with inanimate external arguments that appear with the *-igo* theme-sign, e.g. *n-waabm-igo-n* 'It sees me.' In the remainder of this thesis I will not discuss these constructions for two reasons: (i) These

irrespective of grammatical role, and the theme-sign encodes whether the EA outranks the IA or not, and whether both the EA and IA are SAPs.

(6) Transitive Animate verbal paradigm (Adapted from Valentine 2001:287)

<table>
<tr><th>IA / EA</th><th>2</th><th>1</th><th>3 (prox)</th><th>3' (obv)</th></tr>
<tr><td>2</td><td>reflexive</td><td>g-STEM-i
DIR(L)</td><td colspan="2">g-STEM-aa
DIR(NL)</td></tr>
<tr><td>1</td><td>g-STEM-in
INV(L)</td><td>reflexive</td><td colspan="2">n-STEM-aa
DIR(NL)</td></tr>
<tr><td>3</td><td rowspan="2">g-STEM-ig
INV(NL)</td><td rowspan="2">n-STEM-ig
INV(NL)</td><td>reflexive</td><td>w-STEM-aa-n
DIR(NL)</td></tr>
<tr><td>3'</td><td>w-STEM-igo-on
INV(NL)</td><td>reflexive</td></tr>
</table>

Now that the Inverse System in Ojibwe has been introduced, I argue for a specific approach to the π-features relevant for deriving the theme-sign morphology that will be used in conjunction with Cyclic Agree.

2.2 Morphosyntactic Person Feature Organization

The set of Person features in Ojibwe is robust and complex, so here I propose a feature geometry to reflect the organization of π-features necessary to account for the full Inverse System paradigm (and in fact, the full set of verbal paradigms in Ojibwe). The geometry must be structured and sufficiently detailed to get the effects of ranking in (1), which I claim is actually a reflex of the *entailment* relations between features (including the

constructions are impossible for the dialects I study and speakers will not produce or accept transitive forms with inanimate external arguments, and (ii) for dialects where this is possible, the construction needs further investigation since inanimates cannot typically be Agents of an action in Ojibwe. If inanimates are Agents, they might undergo some kind of "animation," treating them as grammatically animate in the syntax. Further, the *–igo* suffix has a slightly wider usage than the other theme-signs, like in the Unspecified Agent Construction discussed in Chapter 8.

different types of 3rd persons). Also, I posit that arguments are contrastively underspecified in terms of π-features in the syntax, where full specification can be filled in post-syntactically.

I use the features [Animate], [Proximate], [Participant] and [Addressee] to differentiate the person specifications available on Ojibwe arguments. I posit that these features are related to each other by *entailment* or *dependency* relations. For example, the most specified [Addressee] feature (relating to 2nd person) entails all the other person features because to be an [Addressee] it is the case that one must also be a [Participant], [Proximate], and [Animate]. This means [Addressee] is dependent on, and therefore entails, all other features, and one cannot be an [Addressee] but not also [Animate], for instance. Similarly, [Participant] (relating to 1st person by contrastive underspecification, shown in (14) below) does not entail [Addressee], since one can be a [Participant] while not also an [Addressee] (in the case of the Speaker), but does entail [Proximate] and [Animate].[7] [Animate], on the other hand, is the least specified π-feature and does not entail [Addressee], [Participant] or [Proximate] since an argument can be [Animate] without being [Proximate] (e.g. an obviative argument).

I propose the monovalent Person feature geometry illustrated in (7)a for Ojibwe, abbreviated as (7)b in representations later in this Chapter. The root node, and least specified Person feature, is [π], and the most specified, or specific, feature is [Addressee] (or [2]). *Inanimate* is unspecified in the π-feature geometry since inanimate arguments do not share the marking or person agreement of the other π-specifications (discussed in Chapter 3).[8]

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[7] I use the feature [Addressee] rather than [Speaker] in Ojibwe to derive the 2>1 ranking (seen in (1)), however nothing prevents another language from using [Speaker], such that [Participant] would then be the contrastive underspecification of 2nd person. I assume that π-feature organizations can differ across languages (see Haspelmath 2008 for another view).

[8] See Quinn (2006) who analyzes 3rd person as introduced by (the presumably more primary) 1st and 2nd person features to derive the person contrasts in Algonquian. In contrast, I take the general view within the literature that 3rd persons are less specified, or lower ranked in some sense, than SAPs (e.g. Silverstein 1986; Halle & Marantz 1993; Anagnostopoulou 2005; Nevins 2007; among many others). I posit that this view of person specification better explains the behaviour of person restrictions in Ojibwe, particularly where 3rd persons are less restricted in the syntax than 1st and 2nd person arguments, discussed in Chapter 4.

(7) Ojibwe phi-feature geometry

a.

π/Animate	=3' (obviative)
|	
Proximate	=3 (proximate)
|	
Participant	=1
|	
Addressee	=2

b.

π
|
3
|
1
|
2

Feature geometries have been widely used to organize phonological features to account for how sets of features pertain to the operation of phonological rules to the exclusion of other features (Clements & Hume 1995:266, e.g. vowel harmony across consonants). In the syntactic component, Cowper (2005) has employed feature geometries to account for the realization of Infl across English and Spanish, which display quite distinct systems. Centrally, a feature geometry is simply a representation of *dependency* or *entailment* relations between features, where the presence of one feature can imply the presence of other features. Features at the bottom of the geometry entail those above it, namely those between itself and the root node (i.e. [π]), such that [2] in (7)b entails [1], [3] and [π], and the feature [π] does not entail any other features since it is the root node.

I posit that this kind of detailed feature organization is necessary to account for the full Inverse System paradigm in Ojibwe, as well as theme-sign morphology in other verbal paradigms. First of all, detailed π-feature entailment relations allow for the contrasts between all the Person feature types, and second, all these features must be somehow related to each other as described by the Participant Hierarchy in (1) to get the correct theme-signs. That is, to get the correct direct or inverse theme-sign it must be known that an SAP entails a 3rd person, that proximate 3rd persons entail obviatives, and even that 1st and 2nd person are treated as distinct, showing a 2>1 entailment in the morphology. The entailment relations between π-features are not Boolean because they

indicate more detailed relations than SAP versus third person in Ojibwe, although other languages show a simpler sensitivity to 1,2>3 (e.g. French, see Chapter 7.1.1).

It has been noted many times in the literature that there is a split between SAPs (1st and 2nd person) and 3rd person, and some languages appear to make a [+Person] and [-/øPerson] (non-person, representing 3rd person) distinction (e.g. Benveniste 1974; Kayne 2000; Adger & Harbour 2007). However, such a view is over simplified for certain languages (see Nevins 2007 on Spanish, for example), as is the case for Algonquian languages that have multiple 3rd person contrasts. I will show that only one type of 3rd person, the inanimate, is non-person in Ojibwe, and that 3rd persons cannot be considered a class of personless arguments. As mentioned for the examples in (4), animate 3rd persons have a proximate/obviative contrast that can be seen as a system of disjoint reference to track different 3rd person arguments. 3rd person cannot be considered simply personless since there is a three-way distinction (proximate, obviative and inanimate).[9]

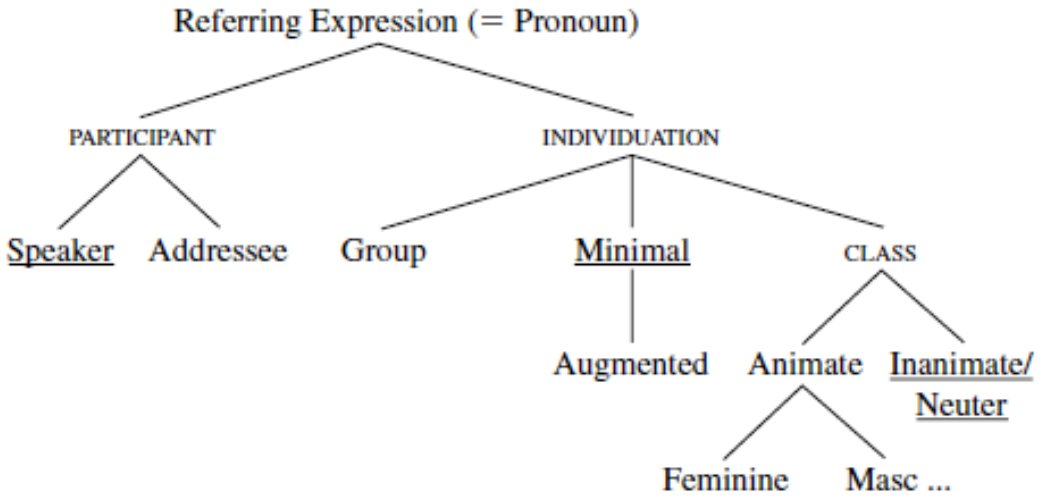
The Person feature geometry I present in (7) builds on work by Harley & Ritter (2002) who develop the well-known morphosyntactic phi-feature geometry in (8) to account for the forms of pronouns cross-linguistically. This geometry makes a split between the SAPs, under a PARTICIPANT node, and 3rd person is essentially personless under the number node INDIVIDUATION, seen in the default specifications listed in (9).

[9] In fact, Western Ojibwa shows a four-way morphological distinction among the 3rd persons, where *further obviative* is overtly marked by *–ini* (where proximate>obviative>further obviative):

(i) John o-gikeenim-aa-an Mary-an o-miseeh-**ini**
John 3-know-DIR(NL)-OBV Mary-OBV 3-sister-F.OBV
'John(prox) knows Mary's(obv) sister(f.obv).' (Grafstein 1984:24)

Further obviative would constitute another rung on the Participant Hierarchy, making it 2 > 1 > 3 prox > 3 obv > 3 further obv > Inanimate, and would involve another feature on the π-feature geometry. Western Ojibwe shows an extreme distinction between kinds of 3rd persons that all interact with π-feature ranking.

(8) A morphosyntactic feature geometry – Harley & Ritter (2002:486)



(9) Harley & Ritter (2002) Pronoun specifications

1st Person	2nd Person	3rd Person
RE	RE	RE
|	|	|
PART	PART	INDV
|	|	
SPKR	ADDR	

However, I do not adopt the specifics of the Harley & Ritter (2002) geometry because there is a direct entailment relation between SAPs and types of 3rd persons, which is not represented in the geometry in (8). Harley & Ritter (2002) can potentially achieve distinct specifications for all the different types of Person in Ojibwe by using specifications like CLASS and Animate, but this feature organization cannot be directly adopted since the inherent ranking between SAPs and types of 3rd persons is not sufficiently encoded. For example, I claim 1st person entails 3rd obviative, but there is no dependency between the PARTICIPANT and Animate or CLASS nodes (that could encode obviation), but only with the root node, RE. So the ranking between 1st and 3rd is not related to the ranking between types of 3rd persons (proximate, obviative, inanimate) and the full set of π-feature distinctions active in Ojibwe are not directly reflected in the Harley & Ritter (2002) phi-feature geometry in (8).

Further, I want to claim that π-features should be a distinct class of phi-features, apart from number/#-features for one, since they act as an independent set in Ojibwe and other languages. The sensitivity of the Inverse System to π-features is not extended to other phi-features like number and has no place in the entailment relations between π-features. Other phenomena may involve interactions between π- and #-features, and I will set this aside as a concern of the phi-node rather than of the π-node.

The entailment relationships between the Person features are what cause the Hierarchy effects in Ojibwe. In the simpler case, the Person proclitic on the verb realizes the most specified feature (that is, the feature unentailed by other features in the clause). In the more complicated case of the direct or inverse theme-sign, the internal and external argument must somehow be compared to each other to determine which one entails the other to properly insert the direct or inverse theme-sign.

There have been many analyses of the Inverse System in Algonquian languages (e.g. Ojibwe, McGinnis 1995, 1999; Potawatomi, Halle & Marantz 1993; Passamaquoddy, Bruening 2001, 2009; Menominee, Macaulay 2005). Although these previous analyses make useful generalizations and observations, they generally consider subsets of the data that I attempt to characterize in this thesis. Much attention has been given to the core Inverse System (see (6)), which I also discuss here, but I discuss in detail the theme-sign suffixes found outside the Inverse System (i.e. in other transitive and intransitive constructions) that are spelled-out in the same slot and are predicted by my treatment of theme-signs as specifically Person agreement. The previous analysis of Béjar & Rezac (2009) is found in section 2.3, Bruening (2001,2005,2009) in Chapter 3.3, and Anagnostopoulou (2005) in Chapter 4.2.3 in the discussion of the Person-Case Constraint. In the following sections I will use the proposed Person feature geometry in (7) to account for the morphology of the Inverse System, and further for the forms of verbal suffixes that also appear to be in the theme-sign slot for other paradigms. I argue that a detailed organization of π-features is necessary given the set of distinct specifications that can all interact with one another to portray the kind of ranking that is often described in terms of hierarchy effects in the literature.

The next section introduces the mechanism of *Cyclic Agree* proposed by Béjar & Rezac (2009), which allows a probe bearing multiple features to enter Agree relations

with multiple goals. They use this mechanism to describe the core Inverse System in Ojibwe,[10] but I argue for changes to their machinery and claim that my approach makes different predictions for Ojibwe that are borne out in the data.

2.3 Cyclic Agreement

Now that I have introduced the Person feature geometry in (7), I look at how these mutually entailed π-features interact with the arguments and contribute to the spell-out of the complex theme-sign suffixes.[11] My account of the Inverse System adopts the concept of *Cyclic Agree* as proposed by Béjar & Rezac (2009). This type of syntactic Agree allows for the interaction of π-features on separate arguments, which can individually Agree with a complex probe. Although I adopt the notion of Cyclic Agree, I extend the context of Cyclic Agree from the transitive Ojibwe paradigms treated in Béjar & Rezac (2009) to intransitive morphology in Ojibwe (Chapter 3.1.1), and I employ distinct feature content on arguments and revise mechanics of their proposal that I consider are problematic (section 2.4). First I summarize the Béjar & Rezac (2009), then I present my analysis of how the direct and inverse are derived building on Cyclic Agree.

2.3.1 Sketch of Béjar & Rezac (2009)

Béjar & Rezac (2009) posit that multiple arguments can potentially Agree with a complex *core probe* that bears a set of uninterpretable π-features.[12] For languages like Ojibwe, little *v* bears a probe with a full set of π-features, i.e. [π [participant [addressee]]] (versus other languages, such as English, which might bear a *flat* probe bearing only [π]).

A sketch of their proposal is given in the derivation in (10) (illustrated in (11)[13]). Note that the initially merged head is *v*, its first copy from projecting is v_I and the final

[10] Béjar & Rezac (2009) use the term *Nishnaabemwin* for the language described, which is a term for some dialects within the collection of dialects often referred to as *Ojibwe* (see Valentine 2001:40).

[11] The person proclitics are discussed in section 2.3.3, but my analysis focuses on the analysis of the much more complex theme-sign suffixes.

[12] Béjar & Rezac (2009) apply their proposal to Ojibwe (termed *Nishnaabemwin*, see fn. 10) to account for the complex forms of theme-signs in the VTA paradigm (to be discussed in section 2.4).

[13] Note that the diagram in (11) simplifies the structure of the VP complement of *v* indicated in (10), identifying only IA, the internal argument, within the VP.

copy at the maximal projection level is denoted v_{II} (all these are seen in (11)). First in Step 1 of (10), the VP containing the internal argument merges with little *v*, which bears a probe made up of a set of π-features (e.g. [1, 2, 3]). Given the Earliness Principle, the features on *v* are required to probe as soon as possible (cf. Pesetsky & Torrego 2001) and *v* searches its complement for matching features. If the internal argument in the complement of *v* bears π-features that match the probe then those features are deleted on *v* (Step 2). Next (Step 3), the EA merges into the specifier of *v*P and can check π-features that are yet unmatched on *v*'s probe (that is, not checked by the internal argument goal), such that it is possible for two goals to Agree with the same probe.

(10) *Derivation of a transitive vP* (Béjar & Rezac 2009:48)

Step 0: VP constructed as {V, {V, IA}}; v becomes locus

Step 1: Merge(v, VP) ⇒ $\{v_I, \{v, \{V, \{V, IA\}\}\}\}$

Step 2: Agree(v_I, IA)

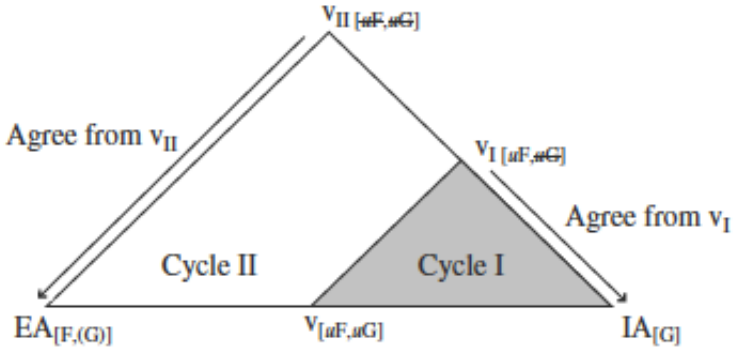
Step 3: Merge(vP, EA) ⇒ $\{v_{II}, \{EA, \{v_I, \{v, \{V, \{V, IA\}\}\}\}\}\}$

Step 4: Agree(v_{II}, EA), if there is still a probe on v_{II}

In plainer terms, *v* bears a probe with a set of features and can Agree with the internal argument before the external argument is merged. Then, when the external argument is merged, if the probe on *v* has features remaining unchecked that match features on the external argument, another Agree relation is triggered and *v* undergoes Agree with both the internal and external arguments.

Higher labels or copies (v_I, v_{II}) of a head (*v*) will bear the same feature set as the original head modulo the effects of Agree. These labels are considered lexical items projected from the head of a Merge operation as per Chomsky (2000:133). The diagram in (11) illustrates how *v* checks with multiple local goals: the internal argument in its complement, then the external argument in its specifier. The features [F, G] are specified as π-features.

(11) Cyclic expansion of the search space (Béjar & Rezac 2009:49)



Taking here the inspiration of Cyclic Agree from Béjar & Rezac (2009), I propose some different details in my realization of Cyclic Agree. The following subsection introduces my proposal for the Cyclic Agree account of the Ojibwe theme-signs, before returning to the details of Béjar & Rezac's proposal and the differing mechanics and predictions of these accounts. I claim that the π-features on *v* are contrastively underspecified, allowing both the internal and external argument to Agree with the initial probe in the direct and inverse. I differentiate the inverse from the direct by how a single, but complex, probe on *v* is checked, obviating the need for Béjar & Rezac's insertion of an added probe to Agree with the external argument in inverse contexts (see section 2.4). I argue that my instantiation of Cyclic Agree better accounts for the Ojibwe theme-sign morphology as complex Person agreement, in conjunction with the notion that π-features organized by entailment relationships can play a role in the syntax.[14]

2.3.2 Derivation of the DIRECT and INVERSE

As I asserted in section 2.1, the theme-sign suffix encodes the Person features of both the external and internal argument in a transitive animate clause. The main components of my derivation of the Ojibwe theme-signs are given in (12), using the notion of π-features and their relative entailment developed in section 2.2 and a modified version of Cyclic Agree.

[14] I return to the discussion of Béjar & Rezac (2009) in section 2.4 and will give their derivations of the direct and inverse in Ojibwe.

(12) Ojibwe theme-signs derived by Cyclic Person Agree

a. Theme-signs are the morphological spell-out of *v*.

b. *v* bears a complex probe of organized π-features that can Cyclically Agree with a goal (i.e. argument) in its complement and specifier.

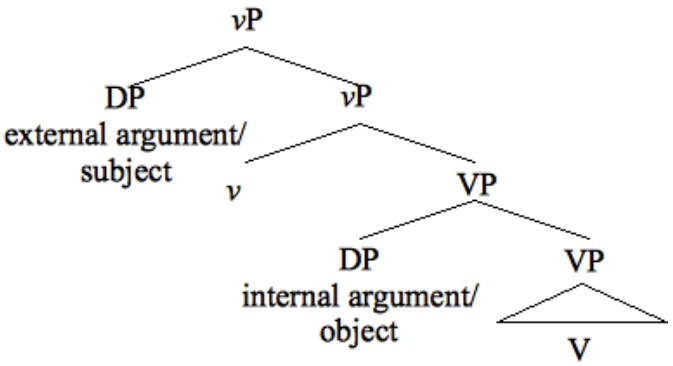
c. Arguments bear contrastively underspecified π-features.

d. π-features matched on *v* mark/activate (but do not match) entailed features.

I propose that the theme-sign is the morphological spell-out of a single syntactic head, little *v*, bearing a complex probe of organized π-features that can Cyclically Agree with multiple argument goals. I argue that the manner in which two argument goals Agree with the probe encodes both their π-features and whether the higher structural argument also bears the more specified π-feature (the direct) or not (the inverse).

First, I assume standard argument structure with the external argument as specifier and the internal argument in the immediate complement (e.g. spec VP) of *v*P respectively in Ojibwe, illustrated in (13).[15]

(13) Transitive clause argument structure



[15] In general I use bare phrase structure style trees with recursive XP levels and lacking any X′ levels. There is no effect on my proposal if one assumes bar-levels. I place the internal argument in the specifier of VP for ease of representation, but no syntactic difference (word order, locality) will arise if the internal argument is assumed to be the complement of V. Ojibwe verb stems are often complex, and their internal structure is slightly simplified in my representation, indicated by the triangle above V. I indicate the internal structure of the VP when relevant.

Second, arguments bear contrastively underspecified sets of π-features, giving the representations in (14) when they enter the syntactic derivation.

(14) π-features on arguments

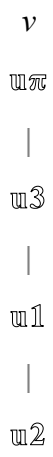
1st:	[1]	Proximate:	[3]
2nd:	[2]	Obviative:	[π]
21 ('we' inclu):	[1, 2][16]	Inanimate:	∅

I have claimed that π-features are entailed with respect to one another, illustrated in the feature geometry in (7), but DP arguments do not bear all the features they entail in the narrow syntax as this information is redundant and can be filled in at the interfaces. This filling in of features is akin to what has been proposed for another interface, where phonological distinctions are lexically minimal and full specification occurs later in the derivation, such as at the phonetic interface (see Steriade 1995; Kenstowicz 1993). The specifications listed in (14) indicate the minimal featural information required to distinguish all types of persons from each other in the syntax, and non-contrastive features can be inferred from entailment post-syntactically. For example, a 1st person argument bears [1]/[Participant] as the only (relevant) feature visible for syntactic operations, but the representation of this argument is fully specified as [π-3-1] (i.e. [Animate-Proximate-Participant]) after the syntactic component. Also, it will be shown later that fully specified π-features on arguments make the wrong predictions about the grammaticality of overlapping reference between arguments (section 2.4).

Third, little *v* is the locus of π-feature checking or licensing (in line with Béjar & Rezac 2009) as it contains the internal argument in its complement and introduces the external argument such that both are local, potential goals. Little *v* bears the probe shown in (15), which is an uninterpretable version of the feature geometry introduced in section 2.2.

[16] Inclusive 'we' involves both a speaker and addressee participant, and hence checks both features [1,2] in the same cycle, at the same time.

(15) Complex π-probe (outlined features inactive at Merge):



Within my account, the uninterpretable features merged on *v* are *inactive*, or *unentailed* when they are introduced to the narrow syntax (represented as outlined features). Features are *activated* when they are *entailed* by a feature that is matched under Agree. The matching feature must be able to connect to the root node of the geometry since a feature is dependent on the features it entails (Clements & Hume 1995:267 for phonological features).[17] Note that entailed features are not deleted since they are not matched, and can be matched by another goal in the syntax. For example, if a goal bears [1], it matches [u1] on *v* and entails and activates [uπ] so that it is connected to the root, but does not match and delete [uπ]. Crucially, the notions of entailment and connecting to the root of the geometry are not novel to my approach, but have been utilized for phonological features, which also show entailment dependencies.

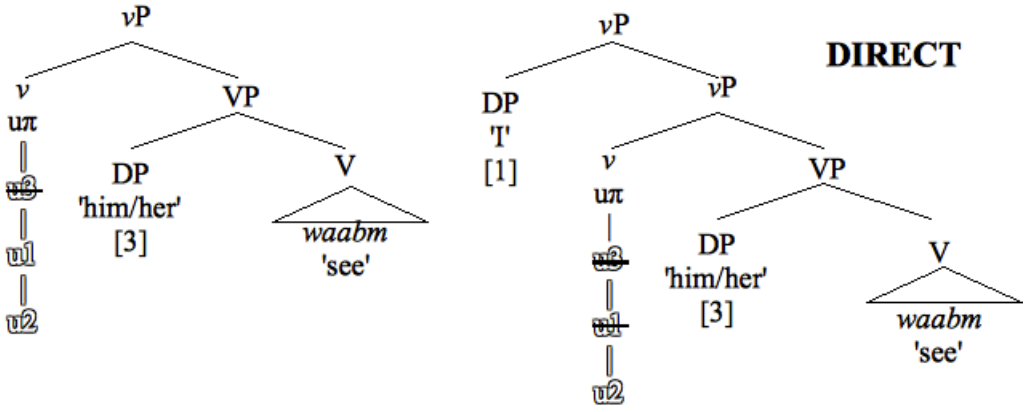
To illustrate this account, I first show the derivation of a direct construction, where the π-features of the external argument are more highly specified than those of the internal argument as in (16) 'I see him/her.' The structure is derived where first the internal argument merges with V, which then merges with little *v* bearing the complex Person probe. Before the probe on *v* matches with any goals, its uninterpretable features are merged inactive or unentailed, indicated by outline (as in (15)). In Cycle 1 in (16)a, the probe on *v* looks into the only available search space of its complement for an

[17] This *activation* of features could also be compared to *Node Interpolation* (Sagey 1991) where node structure is interpolated (here *activated*) to preserve well-formedness of the representation, i.e. connecting checked features to the root node feature.

appropriate goal and finds the internal argument bearing [3], matching and marking [u3] for deletion on the probe (indicated by strikethrough). Checking with the internal argument that is contrastively underspecified as [3] does not match or delete [uπ] on *v*, but only entails and activates [uπ] so that the matched [u3] is connected to the root node of the geometry.[18] Note that the unmatched and unentailed features (i.e. [u1] and [u2]) remain inactive. Cycle 2 in (16)b merges the external argument. Since uninterpretable features remain on *v* it continues to probe into its specifier (i.e. its expanded search space) and can match with the [1] feature on the external argument. [u1] is deleted, but no other features are activated since [uπ-u3] are the only features entailed by [u1] and were activated in the previous cycle.[19,20]

(16) n-waabm-aa
1-see-DIR
'I see him/her.' (Valentine 2001:272)

a. Cycle 1: IA Goal b. Cycle 2: EA Goal



[18] [u3] does not need to be activated (i.e. changed from outlined to filled in) because the checking of this feature connects it to the root node.

[19] Note that the remaining [uF]s on the *v* probe are not 'uninterpretable' in the sense of Chomsky (1995), but rather inactive or unvalued. Following Preminger (2011), unmatched [uF]s on a probe will not cause a derivation to crash as long as the probe has attempted to Agree with a goal.

[20] The verbal structure is slightly simplified in the tree in (16) for the verb *waabm* 'see'. This stem is actually *waab-am* where *waab* is the root and *–am* is a categorizing suffix found on transitive verbal stems.

Both arguments in a transitive clause can uniquely match and Agree with a single syntactic head, *v*, since it bears a set of (organized) features able to probe for multiple goals. The construction in (16) is direct since the matched features in both cycles were unentailed, and therefore inactive, at the moment of Agree. The derivation process is restated in (17) as the order of operations involved in Cyclic Agree.

(17) Order of operations for Cyclic Agree:

1. Merge *v* (bearing complex Person probe) with VP.
2. *v* searches complement/VP for matching π-features (by Earliness, Béjar & Rezac 2009).
3. Internal argument [F1] matches and marks [uF1] for deletion on *v*, and activates all entailed features (i.e. features between [F1] and root/[uπ] node).
4. Merge external argument in specifier of *v*P.
5. *v* searches specifier for matching π-features.
6. External argument [F2] matches and marks [uF2] for deletion on *v*, and activates all previously inactive/unchecked entailed features.

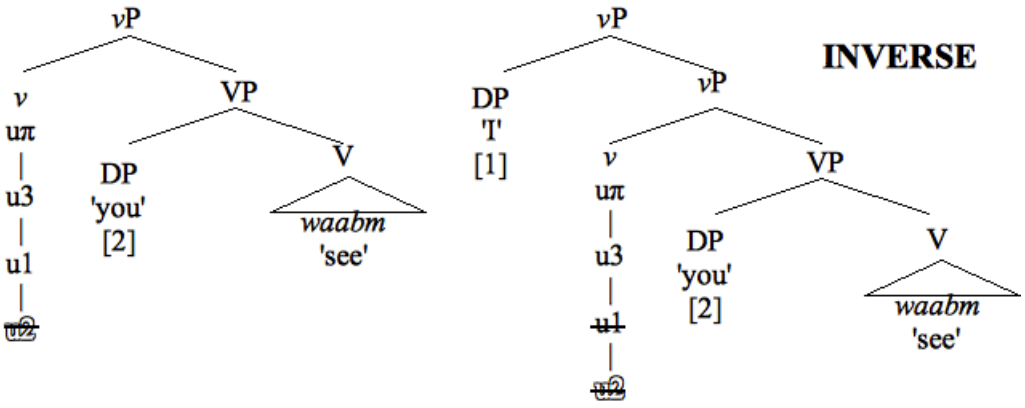
Next consider the inverse derivation in (18) which will differ from the direct in (16) in how the features are checked, specifically it will involve checking a feature that is already active at the moment of Agree. (18) 'I see you' is inverse since the internal 'you' entails the π-features of the external argument 'I'. Cycle 1 in (18)a merges *v* with VP, again allowing the complex π-probe to search complement of *v* for a matching goal where it finds the internal argument bearing [2]. [u2] on *v* is matched and marked for deletion but also activates all the other features [uπ - u3 - u1] (since [2] is the most specified π-feature), so that the matched feature is connected to the root node. Then, in Cycle 2, *v* can Agree with the external argument in its specifier provided it bears a feature that has not already been matched on the probe. The external argument bears [1] which has been entailed by the checking of [u2] on *v* in the previous cycle, but has not been matched and can now be matched as an already activated feature. No feature entailment can occur in Cycle 2 since all features on the probe have already been activated. This derivation also follows the order of operations in (17).

(18) g-waabm-in

2-see-INV(L)

'I see you.' (Valentine 2001:272)

a. Cycle 1: IA Goal b. Cycle 2: EA Goal



In both the direct and inverse contexts both arguments can Agree with *v*, given that they match and delete distinct features. However, the derivational difference between the direct and inverse is that the former involves only the checking of inactive features, while the latter checks a feature already activated by entailment. This is the case since in the direct (16) the internal argument, which Agrees with *v* first, is lower ranked than the external argument and therefore cannot entail and activate the external argument's features. Conversely, the inverse derivation in (18) involves the matching of an already activated feature in Cycle 2. Because the internal argument is more highly specified than the external argument, it entails and activates the external argument's π-feature on *v* in the first cycle. Then, in the second cycle the external argument must match a previously activated feature.

I have argued that the entailment relationship between π-features (represented in a geometry) is necessary (used in one form by Harley & Ritter 2002). Entailment is a necessary semantic property (e.g. Cowper 2005) and these relationships have been independently argued for in the phonological component. Even the idea that the geometry on *v* is merged as *inactive* and can be *activated* by other features in the domain is not

novel given the phonological literature (realized in different forms by Clements & Hume 1995 or Sagey 1991 with Node Interpolation).

The detail in my analysis that is new is that a feature can be identified as either checked when already entailed/activated (e.g. [~~u1~~] in (18)), or checked while still unentailed/inactive (e.g. in [~~u1~~] in (16)). I use this distinction to discriminate between direct and inverse constructions because checked entailed features only appear when the higher external argument does not outrank the internal argument (which will occur in the inverse). The theme-sign morphology is complex and cannot be explained by simple Agree relations, but relays information about the π-specification of both clausal arguments as well as how those π-features entail each other. I argue that a complication of the system is necessary, and that it is preferable to choose a complication in how π-Agree proceeds. As will be discussed below, different views of the Inverse System introduce complications in the syntax in terms of movement (e.g. Bruening 2001, Anagnostopoulou 2005) or in terms of spell-out the theme-sign from different syntactic elements (Béjar & Rezac 2009, also Bliss, Ritter & Wiltschko 2010, 2012)[21]. I argue that my featural

[21] Bliss, Ritter & Wiltschko (2012) argue that theme-signs in Blackfoot and Ojibwe (Nishnaabemwin) do not form a natural class and instead correspond to different functions in different syntactic positions (coincidence in PoV, Actor agreement in *v*, and Goal agreement in Asp). In contrast, I argue that Ojibwe theme-signs are a natural class of complex person agreement with clausal arguments. I argue that my approach correctly predicts the form of theme-signs not only in the independent transitive animate paradigm, but also the transitive inanimate and animate intransitive paradigms (see Chapter 3.1) and can cover the differing correspondences of theme-signs in conjunct clauses (see Chapter 3.2.1).

These views might be differentiated by data like that in (i), where Plains Cree shows the core direct *–ê* and inverse *–ikw* suffixes (underline) appearing on either side of a verbal diminutive suffix *–si* (**bold**), and apparently in different morphological slots (see also LeSourd 1995 for similar data in Passamaquoddy).

(i) a. nâpêw ê-pakamahwâsit atimwa (Plains Cree)
nâpêw pakam=ahw-ê-**si**-w atimw-a
man hit=by.tool.TA-DIR-**DIM**-3 dog-XT
'The man(prox) hit the dog(obv) a little, just to scare it.'

b. nâpêw pakamahosikot awâsisa
nâpêw pakam=ahw-**si**-ikw-w awâsis-a
man hit=by.tool.TA-**DIM**-INV-3 child-XT
'The child(obv) hit the man(prox), just a little bit.' (Déchaine & Reinholtz 2008)

complication stays true to the workings of the Inverse System, which, at its core, is concerned with π-features and not other syntactic contexts and allows for better coverage of the Ojibwe morphology. Treating Ojibwe theme-signs as person agreement allows for the unification of their function within the core Inverse System, in other transitive and intransitive verb constructions, and relates to the realization of these suffixes in subordinate clauses using the conjunct order, discussed in Chapter 3.

I argue that the direct and inverse can be syntactically derived by Person Agree and do not need to refer to structure prespecified as direct or inverse, and simplified π-features or agreement correspondences are not required. Having argued for Cyclic Agree with a π-feature geometry on *v*, next I consider what kinds of Vocabulary Insertion rules can translate the complex probe into the theme-sign morphology of the core Inverse System.

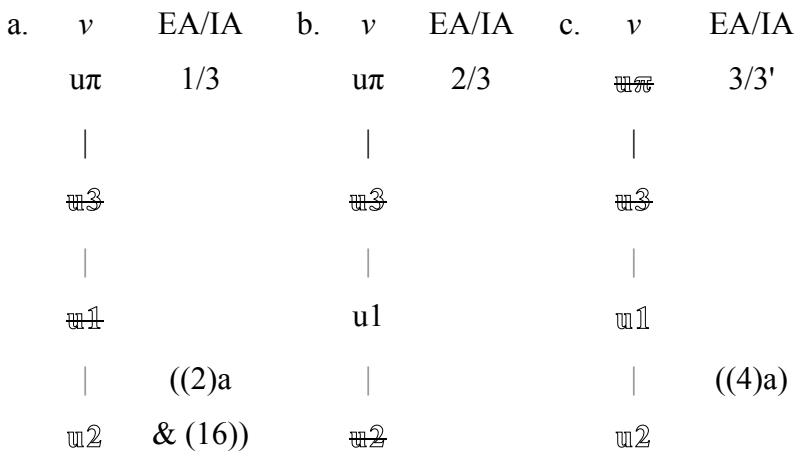
2.3.3 Vocabulary insertion for the Inverse System

The syntactic derivations for the direct and inverse in the previous subsection must correspond to the spell-out of the morphology of the Inverse System. Within Distributed Morphology (Halle & Marantz 1993), the spell-out of a syntactic unit is determined by the features it bears and the Vocabulary Insertion rule that best matches those features. I posit that feature matching and the entailment of features on the π-probe on *v* are visible to the PF-interface and can be considered in the Vocabulary Insertion rules determining the phonological form of the theme-sign suffix in Ojibwe.

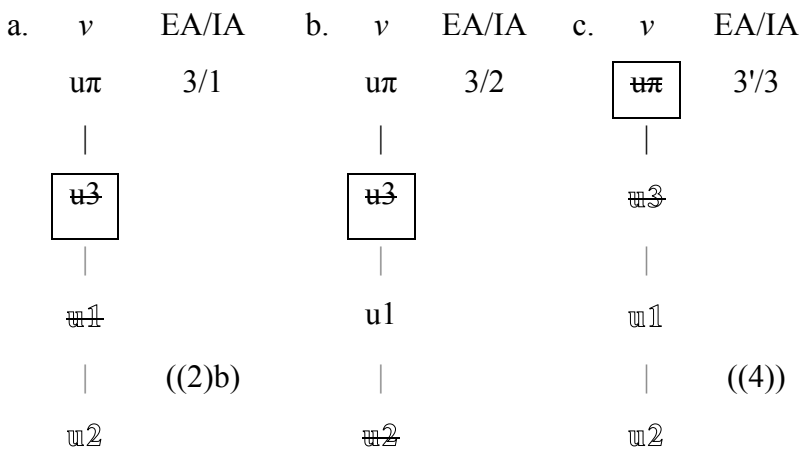
Different combinations of π-features on arguments result in the use of the non-local direct and inverse theme-signs. An inverse theme-sign is inserted if there is an entailed [~~**uF**~~] deleted on *v* (boxed in (20)). A direct theme-sign is inserted elsewhere, that is, when only unentailed [~~uF~~]s are deleted on *v*, as in (19). (19) and (20) illustrate the different markings on the π-probe for getting a non-local DIRECT /-aa/ spell-out, and INVERSE /-igw/ spell-out.

First, this verbal diminutive suffix is not found in Ojibwe (or Blackfoot, Bliss, Ritter & Wiltschko 2012). Second, to extend my analysis of the Inverse System to Plains Cree I consider the possibility that the diminutive *–si* is an adjunct and can be introduced by Late Adjunction (Lebeaux 1988; Stepanov 2000; Fox & Nissenbaum 1999, for example), allowing for it to have freer distribution in the syntax and relating to different morphological positions.

(19) Direct spell-out /-aa/:



(20) Inverse spell-out /-igw/:



Again, I am claiming that what distinguishes the direct from the inverse, and is reflected in the theme-sign morphology, is the presence of a feature that is marked for deletion after it has already been entailed by a previous Agree relation. These features are represented as [uF] as opposed to the default situation of unentailed checked features [F]. If one supposes that all uninterpretable features are inactive/unentailed when merged in the syntax, then any instance of non-Cyclic Agree will check an unentailed feature [F]. Cyclic Agree allows for the special circumstance where a feature can be matched after being entailed since multiple goals with one probe are possible, resulting in an inverse relation.

The charts in (19) and (20) cover the non-local theme-sign set where direct and inverse are /-aa/ and /-igw/ respectively. There is also the case of local theme-signs, introduced in section 2.1, that are used when both the external and internal arguments are SAPs, namely 1st or 2nd person, using instead /-i/ for local direct (21)a and /-in/ for Local inverse (21)b.

(21) a. g-waabam-i
2-see-DIR(L)
'You see me.'

b. g-waabm-in
2-see-INV(L)
'I see you.' (Valentine 2001:270)

To account for both the Local and Non-local theme-signs it is imperative for the probe to record the π-feature specification of both relevant arguments, otherwise the morphology would not be able to consistently indicate when all arguments are SAPs or not. The type of feature checked (i.e. while entailed or not) determines the direct or inverse status, and the content of the features checked indicate which set of theme-signs must be used. Descriptively speaking, a local theme-sign is used when only [u1] and [u2] have been matched and deleted on *v*. A non-local theme-sign is used elsewhere, that is when [u3] has been matched (and not just entailed) on the Person probe. The spell-out rules are summarized in (22). The inverse cases spelling out /-igw/ and /-in/ make reference to checked entailed features [~~u1~~] and (any) [~~uF~~], while the direct cases do not. The Vocabulary Insertion rules for local theme-signs /-in/ and /-i/ ensure that these are only used when only [u1] and [u2] are checked, but not [u3] or [uπ].

(22) Inverse System Vocabulary Insertion:

INV(L): *v* → /-in/ / [~~**u1**~~]

DIR(L): *v* → /-i/ / [~~u1~~, u3]

INV(NL): *v* → /-igw/ / [~~**uF**~~]

DIR(NL): *v* → /-aa/ / elsewhere

The morphology of the Inverse System also includes the Person proclitic that Agrees with the highest-ranking π-feature in the clause (e.g. *g-* '2nd person' in (21)), regardless of grammatical role. The focus of my account is on the complex theme-signs and not the person proclitics, which are simpler and only spell-out one π-feature that is the most specified in the clause. The situation of the person proclitic is a classic case of competition for insertion (Halle & Marantz 1993) where the most specified features are spelled-out over a less specified form. I adopt the view of McGinnis (1995) who proposes that the features of the arguments can Agree with or move to the head that spells-out as the person proclitic. Suppose the proclitic is the spell-out of C and the π-features of the external and internal argument can move to C where the vocabulary items in (23) compete for insertion based on those features. The person proclitic only relays the most highly specified π-features in the clause and is not sensitive to grammatical function or other properties, unlike the theme-signs, which are sensitive to the relative syntactic hierarchy of arguments (indicated by order of Cyclic Agree).

(23) Proclitic vocabulary items

[2]	↔	/g-/	
[1]	↔	/n-/	
elsewhere	↔	/w-/	(Adapted from McGinnis 1995:2)

Appealing to the relationship of entailment between π-features and a complex probe that can potentially Agree with multiple goals, the core morphology of the Ojibwe Inverse System is accounted for fully. In Chapter 3 I show how my analysis of the core Inverse System predicts the patterning of theme-signs in other verbal paradigms not normally considered under Inverse System accounts.

The following section discusses the details of Béjar & Rezac's (2009) Cyclic Agree and why I do not adopt all the details of their mechanism.

2.4 Review of Béjar & Rezac (2009)

Returning to Cyclic Agree as proposed by Béjar & Rezac (2009), I have adopted the notion that *v* is the locus of Person Licensing and as such it can bear a complex probe that can potentially Agree with more than one goal. However, I will extend the application of Cyclic Agree within Ojibwe (Chapter 3) and the mechanics of my account are significantly distinct from their proposal, which I spell out the below in section 2.4.2. The complication in my system relates to how features on a probe can be checked, and the complication in their account is an operation of *insertion* that occurs in inverse contexts. Béjar & Rezac (2009) have fully specified π-features on arguments that are organized into subset relations with each other, while I have contrastively underspecified features organized by entailment relations. However, the main issue I will discuss is their insertion of an *added probe*, which appears only in inverse contexts to save a derivation that would otherwise crash.

2.4.1 Derivation of the direct and inverse

Béjar & Rezac (2009) discuss the Inverse System in Ojibwe (Nishnaabemwin) using the feature arrangement in (24)a where features are related by subsets. For example, a 1st person is a [participant], which is in turn a subset of [π] that contains all the specified Person features. The complex probe on *v* is abbreviated as (24)b and is labeled the *core probe*, which is crucially the probe that initially enters the derivation on the first label of *v*, illustrated in (29) (see also (11)). This type of subset relationship requires full feature specification on the arguments in the syntax, shown in (25).

(24) Ojibwe Core Probe:

a. [π [participant [addressee]]]

b. [u3]
[u1]
[u2] (Béjar & Rezac 2009:49,50)

(25) Argument π-feature specification (Béjar & Rezac 2009:43)

3rd	1st	2nd	*Shorthand 2>1>3*
[3]	[3]	[3]	
	[1]	[1]	
		[2]	

Additionally, the π-features on an argument are subject to the licensing condition in (26) such that at least one feature from the full feature specification on an argument must enter an Agree relationship in the syntax. Arguments bearing π-features that do not enter an Agree relation are therefore ungrammatical.

(26) **Person-Licensing Condition (PLC):**
A π-feature [F] must be licensed by Agree of some segment in a feature structure of which [F] is a subset. (Béjar & Rezac 2009:46)

Within their proposal, the direct is derived as in (27) (read right to left) where both the internal and external argument can check unique features on the *core probe* (feature checking indicated by '—', features checked in a previous cycle in parentheses ([uF])). In Cycle I the internal argument matches [u3] on the core probe, and in Cycle II the external argument, bearing [1, 3] can match at least one of its features [1] against the core probe.

(27) Direct derivation (adapted from Béjar & Rezac 2009:63)
DIRECT(Non-Local) /-aa/ (cf. (2)a 'I saw her/him.')

Cycle II			*Cycle I*		
v_{II} (Core)		EA	v_{I} (Core)		IA
([u3])		[3]	[u3]	–	[3]
[u1]	–	[1]	[u1]		
[u2]			[u2]		

For the inverse in (28), the internal argument is more highly specified than the external argument and fully Agrees with the core probe such that the external argument cannot

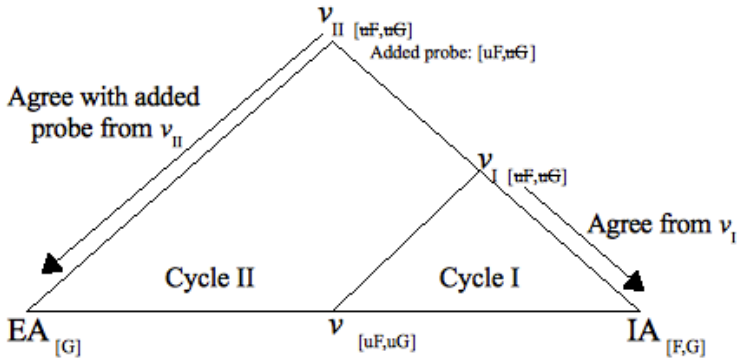
also Agree with the core probe. The direct in (27) has both arguments entering Agree with the same core probe, but the inverse has only the internal argument checking with the core probe. To save the derivation and allow the external argument to license its π-features as per (26), Béjar & Rezac (2009) propose that an *added probe* (bolded in (28)) can be inserted on a higher label of v_{II} (dominating the EA in spec *v*P, see (29)) and can Agree with the argument. They claim that the added probe only appears in "inverse contexts" (2009:63), namely in the cases where the lack of an added probe would violate the Person Licensing Condition because the π-features on the external argument cannot Agree with anything. Added probes should not appear in "non-inverse contexts" (e.g. direct) when no rescue is needed for their Person Licensing Condition.

(28) Inverse derivation (adapted from Béjar & Rezac 2009:63)

INVERSE(Non-Local) /-igw/ (cf. (2)b 'She/He saw me.')

Cycle II				*Cycle I*		
v_{II} (Core)	**v_{II} (Added)**		EA	v_{I} (Core)		IA
([u3])	**[u3]**	–	[3]	[u3]	–	[3]
([u1])				[u1]	–	[1]
[u2]				[u2]		

(29) Cyclic expansion of the search space with added probe in the inverse context



2.4.2 Comparison with Béjar & Rezac (2009)

I build on Béjar & Rezac (2009) who propose that Cyclic Agree with a complex π-probe on *v* can derive the Ojibwe Inverse System as well similar data in other languages. However, my analysis differs from theirs in several important ways and is not a notational variant of their analysis. This section compares the formulation of Cyclic Agree from Béjar & Rezac (2009) to the details of my account laid out in section 2.3, and I claim that my analysis better accounts for the range of Ojibwe data. First, I discuss the use of the *added probe* found in inverse contexts for Béjar & Rezac, citing issues for the No Tampering Condition and the motivation for insertion as satisfying a type of Case licensing. Second, I compare their rescue of the added probe with my entailed π-features, claiming that my featural representations get all the necessary distinctions for the Ojibwe Inverse System, and I crucially predict the impossibility of overlapping reference between clausal arguments. Third, I look at the realization of inverse morphology, where Béjar & Rezac must refer to multiple probes and labels of *v*, but I only refer to the checking on a single probe on *v*.

The first distinguishing factor between these accounts is Béjar & Rezac's (2009) use of an *insertion* operation for the *added probe* in inverse contexts. Inverse contexts arise when the internal argument is more specified than the external argument such that the internal argument checks all features on the core probe on *v* and blocks the external argument from Agree with the core probe. An added probe is then inserted on v_{II} (e.g. (28)) to check with the π-features of the external argument to satisfy the Person Licensing Condition in (26). I argue that the use of insertion goes against the Chomsky (2000) view of syntactic labels that Béjar & Rezac (2009) refer to, and that the added probe is not a necessary rescue for the licensing of the external argument.

Discussing the issue of insertion, Béjar & Rezac (2009:48) assert that higher labels or copies of a head, like *v*, will bear the same feature set as the original head, modulo the effects of Agree (see (11) and (29) with core probe [uF,uG]). The labels are lexical items (LIs) projected from the head of a Merge operation as per Chomsky (2000:133). For simple syntactic objects, Chomsky proposes that "[t]o ensure that every category has a label, let us say that label(α)=α, for α an LI" (200:133). For complex syntactic objects constructed by Merge, such as {γ,{α,β}}, "the label γ should be the label of either α or

β…. its label is an LI, the head selected from the lexicon that has 'projected' through the derivation." (2000:133). However, inverse contexts require the insertion of the added probe on v_{II}, the highest label of *v*, making v_{II} featurally distinct from the originally merged head and not just changed by the effects of Agree (seen in (29)). The insertion of an added probe is not covered under the Chomsky (2000) view of syntactic labels and violates the No Tampering Condition (i.e. Chomsky 2005).

Béjar & Rezac (2009) motivate the insertion of the added probe with the Person Licensing Condition that requires the π-features on arguments be checked, as a kind of Case Licensing (2009:36). In the inverse context, the internal argument fully Agrees with the core probe so that the external argument must Agree with another probe to satisfy the Person Licensing Condition. The question that arises is why the external argument must check its π-features at the *v*P level and cannot wait to check against a head merged higher in the derivation. Compare their system with subject Case assignment in English, where the external argument is merged in spec *v*P but cannot get nominative case until T merges, and no insertion of a Case assigner at the *v*P level is needed. Either their system encounters discrepancies with the standard view of English subject Case, or loses its motivation for added probe insertion to satisfy Case realized as the Person Licensing Condition.[22]

The second distinguishing factor between my revision of Cyclic Agree and Béjar & Rezac (2009) is the representation of features on the probe on *v*. Béjar & Rezac have a two-way distinction between checked or unchecked features on the probe as well as the rescue of the added probe for the inverse. I instead avoid any rescue mechanism and enrich the featural representation so that the probe on *v* shows a three-way distinction between features: (i) checked, (ii) entailed, and (iii) checked and entailed (where unchecked and unentailed are not visible to the phonological interface). I claimed in section 2.3.2 that the use of entailment, as well as checking of features, allows for the complex π-probe on *v* to encode the π-features of two clausal arguments as well as their

[22] I do not consider the Inverse System to result from Case, claiming that Ojibwe lacks Abstract Case altogether (see Chapter 5). However, Béjar & Rezac (2009) consider the Person Licensing Condition to be satisfying Case, meaning it is not clear how π-Agree with *v* should differ from Standard Case assignment in general, nor why π-Agree must be satisfied at the *v*P level.

relative ranking to reflect direct or inverse contexts. The differing predictions of Béjar & Rezac's rescue versus my enriched features are exposed in the impossibility of overlapping reference in Ojibwe, summarized in (30) and illustrated in (31).[23, 24]

(30) a. *2-1 – 1sg/pl (see (31)a) b. *2-1 – 2sg/pl (see (31)b)
c. *1sg – 1pl d. *2sg – 2pl
e. *3(prox)sg – 3(prox)pl (see (78)b)
(Valentine 2001:273)

(31) a. * g-waabm-i-min
2-see-DIR(L)-1pl
'We(inclu) see me/us.'
b. * g-waabm-in-im
2-see-INV(L)-2pl
'We(inclu) see you(sg/pl).'

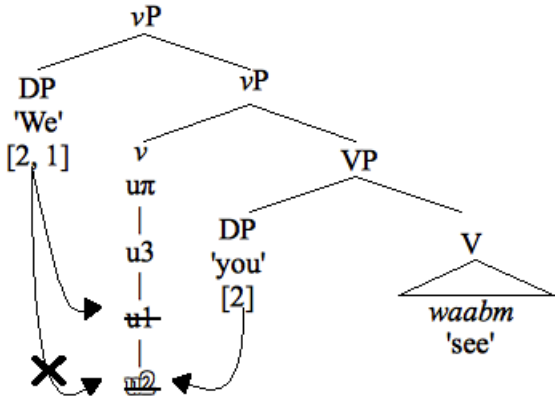
My analysis predicts the ungrammaticality of overlapping reference in (31), but the rescue of Béjar & Rezac's added probe predicts (31) to be grammatical. I posit contrastively underspecified π-features on arguments in the syntax, allowing both the internal and external argument to check against the same π-probe on *v*. The prediction is then made that arguments may not have overlapping features in Ojibwe since once a feature is checked in a cycle it cannot be matched again by another argument in a later cycle, accounting for (30) and (31). For example (31)b, illustrated in (32), is

[23] Note that plural agreement in Ojibwe is realized in a higher slot than the theme-sign suffix. Plural suffixes reflect the person specification of the arguments they agree with, and there is blocking between, for example, 1st person and 2nd person plural suffixes. The specifics of the plural agreement system do not bear directly on my account of the Inverse System, but see further mention in section Chapter 3.2.2.

[24] I do not consider this an issue of binding. Reinhart & Reuland (1993) discuss how certain verbs that describe collective acts can have these kinds of argument feature overlaps: *We elected me* (compare with **We voted for me*, pg. 677). In Ojibwe, these kinds of feature specifications are ungrammatical across the board, regardless of choice in verb. The status of overlapping reference is also discussed in Lasnik (1981), where overlapping reference is not readily equated with (identical) coreference.

ungrammatical for my analysis because the internal argument bears [2] and checks [u2] on *v*, and the external argument 'we(inclusive)' bearing [2,1] attempts to check [u2,u1] on the probe. [~~u2~~] on *v* has already been matched, leaving [2] on the external argument unchecked and causing ungrammaticality.[25]

(32) Overlapping reference impossible (31)b



Conversely, Béjar & Rezac (2009) predict an inverse context for overlapping reference that will trigger the insertion of an added probe to Agree with the external argument, thereby wrongly allowing the combinations in (30) to be derived. Considering again (31)b for Béjar & Rezac, the 2nd person internal argument bears [3[1[2]]], shown in (33), and would check the entire core probe [~~u3-u1-u2~~]. Then the need of the external argument to check its π-features (by the Person Licensing Constraint in (26)) triggers the insertion of an added probe because no features remain unchecked on the core probe, and the derivation is saved by the added probe rescue.

[25] The requirement for the Person Licensing of π-features within my view will be laid out in Chapter 4.2.

(33) Overlapping Reference with added probe insertion for (31)b

Cycle II				*Cycle I*		
v_{II} (Core)	**v_{II} (Added)**		EA	v_{I} (Core)		IA
([u3])	**[u3]**	–	[3]	[u3]	–	[3]
([u1])	**[u1]**	_	[1]	[u1]	–	[1]
([u2])	**[u2]**	_	[2]	[u2]	_	[2]

Whatever features are used to encode 'we(inclusive)' in their system, an added probe will always be triggered in a case like (31)b where the internal argument is 2nd person and bears the full set of π-features. The added probe does not consider how the core probe has been checked in the syntax and cannot block the licensing of the overlapping argument. Note that Béjar & Rezac's (2009) account cannot be easily modified to use contrastively underspecified features because fully specified π-features on arguments are what trigger inverse contexts, identified by the added probe rescue. If their account used contrastively underspecified features, my enrichment of the featural representation to determine direct and inverse contexts becomes necessary since their added probe could no longer be triggered.

The third distinction between these analyses of Cyclic Agree and the Inverse System relates to how the morphology is determined from the syntactic derivation and the realization of "inverse" in other languages. I use a one-to-one correspondence between a syntactic head and a morphological slot, such that both the direct and inverse are the spell-out of the complex π-probe on *v* determined by the marking of the features (i.e. checked, entailed). Béjar & Rezac (2009) spell-out the person proclitic from the core probe (merged on *v*), while the theme-sign is the spell-out of the higher label of v_{II}, which is inverse if v_{II} bears an added probe (pg. 62). There are two morphological slots associated with the *v* projection in two different positions – a prefix/proclitic and a suffix on the verbal complex.[26] I argue that the correspondence between the syntactic derivation

[26] The local theme-signs further complicate spell-out, requiring contextual allomorphy: "[The local /-i/] falls into the class of portmanteau morphology in [participant] direct contexts … we take it to reduce to allomorphy of the core probe in the context of a [participant] valuation of the same probe on v_{I}." (Béjar & Rezac 2009:63)

and morphological spell-out is simpler in my analysis that invests in a featural representation that is able to track clausal arguments on a single probe.

Béjar & Rezac (2009) argue that their added probe morphology corresponds with inverse morphemes in different languages, but I claim that such data can also be accounted for under my version of Cyclic Agree. Consider the Mohawk data in (34) where direct is unmarked in (a), and inverse is marked by *wa-* in (b). Béjar & Rezac consider *wa-* 'inverse' to correspond to the added probe that creates an inverse slot in Mohawk, not present in the direct which does not have a morphological component in this language.

(34) a. K-*see* *DIRECT*
1-see
'I see him.'

b. **wa**-K-*see* *INVERSE*
INV-1-see
'He sees me.' (Mohawk: template) (Béjar & Rezac 2009:59)

My analysis can straightforwardly account for the Mohawk type of data, where the apparent markedness of the inverse is encoded by checked entailed features rather than the insertion of an added probe. The inverse in (34)b would be triggered by a checked entailed feature, like the inverse in Ojibwe (see (18)), and the direct in (34)a corresponds to the spell-out of a null exponent when there are no checked entailed features.

In my system, the spell-out of direct versus inverse is parallel to the spell-out of singular versus plural marking in different languages. Many languages have no singular marking on nouns, but only overt plural marking, however the singular can be realized overtly in some cases (e.g. Ojibwe *nik-a* 'goose-sg', *makw-a* 'beaver-sg', Piggott 2008). The direct is able to have either a null or overt phonological exponent, which is possible within Distributed Morphology (e.g. Halle & Marantz 1993) and is accounted for under my analysis that relates the spell-out of direct and inverse to the same syntactic element. Like Béjar & Rezac (2009), I predict that the inverse can be more morphologically marked than the direct, given that the inverse relates to the special checking of already entailed features. In general, features will be unentailed or inactive when matched (i.e. in cases not subject to Cyclic Agree, interacting with heads other than *v*) so the appearance of a checked entailed feature can be considered relatively more marked. Hence, I do not

predict the unattested possibility of an overt direct marker and null inverse marker in a language.

My version of Cyclic Agree, although inspired by Béjar & Rezac (2009), avoids the use of the added probe and instead appeals to a complication in the representation of features on the complex π-probe on *v*. My version does not tamper with the syntactic derivation with an insertion operation, and reflects the fact that the theme-signs are complex π-agreement spelling-out a single syntactic element. My analysis predicts the impossibility of overlapping reference between an internal and external argument since both arguments must Agree with the same π-probe on *v*, while Béjar & Rezac (2009) would derive an inverse context with an added probe that would allow overlapping reference. Also, I claim that my spell-out shows a direct relationship between the syntactic derivation and morphological slots, but Béjar & Rezac (2009) refer to a more complex and less unified manner of spell-out for the theme-sign suffixes. Although I do not adopt all the detailed mechanics of Béjar & Rezac's (2009) analysis, I agree with their claims that the Ojibwe Inverse System requires the notion of Cyclic Agree and that the complex π-Agree should be based on little *v*, situated between the internal and external argument.

2.5 Chapter Summary

This Chapter first presented the Ojibwe core Inverse System that marks clauses as direct or inverse, and local or non-local with a theme-sign suffix dependent on the π-features and relative entailment relations between an internal and external argument. I argue that theme-signs should be characterized as complex Person agreement since the form of the theme-sign depends on the π-features of both arguments (i.e. to determine local/non-local) and the representation π-features must be significantly fine-grained to account for the relations between π-features. Taking the realization of feature geometries from the phonological literature, and building on Harley & Ritter (2002) and Cowper (2005) who argue for organized features in the morphology and syntax, I propose a π-feature geometry encoding entailment relations. I adopt the notion of Cyclic Agree from Béjar & Rezac (2009) where a single head can Agree with multiple goals allowing it to encode the π-features of the clausal arguments needed to determine the form of the theme-sign. I

claim that the π-feature geometry is realized as the π-probe on *v* and the manner in which arguments check with the probe indicates whether a construction is direct or inverse. Finally, I discussed some details of Béjar & Rezac's (2009) account and argued for the modifications I have made in my analysis. I claim that my approach relates the spell-out of theme-signs directly to their π-agreement and correctly predicts the impossibility of overlapping reference of arguments, which Béjar & Rezac predict to be grammatical.

In the next Chapter I look at data from other Ojibwe verbal paradigms that are not considered in other accounts of the Inverse System, namely transitives with inanimate internal arguments and certain intransitives. I maintain that the theme-sign is directly determined by Person Agree in the syntax and that this Agree is best analyzed as occurring with a single probe. I also look at other aspects of Ojibwe morphology that relate to π-agreement, like the conjunct order found in subordinate clauses and the behaviour of plural suffixes on the verb that defy the 2>1 ranking stated in (1). Further I discuss Bruening (2001, 2005, 2009) who proposes A-movement associated with the Inverse System in the related language Passamaquoddy.

Chapter 3 Implications of Cyclic Agree in Ojibwe Morphosyntax

I have presented an analysis of the core Algonquian Inverse System, as realized in Ojibwe, using the mechanism of Cyclic Agree and a complex π-probe on *v* to account for the theme-sign morphology. However, morphology relating to the theme-sign slot is not only found in the transitive animate verbal paradigm that houses the core Inverse System, but is found across verbal paradigms in Ojibwe. Most analyses of the Inverse System do not look beyond the core theme-sign suffixes, but I show in this section how my view of theme-signs as Person agreement predicts the form of theme-signs in other transitive and intransitive paradigms.

Section 3.1 presents an interesting puzzle in the system of Ojibwe morphology that involves certain verbs that appear to be transitive, yet systematically occur with (theme-sign) morphology associated with an intransitive paradigm. I propose that this puzzle results from a mismatch between the syntax and morphology, where the theme-sign suffix does not directly reflect the valency of a verb (as it is traditionally described) but rather the π-features of its arguments. I show that licensing the internal and external argument against a single locus of *v* accounts for data beyond the core Inverse System, covering the transitive, intransitive and ditransitive paradigms.

In section 3.2 I look at the theme-signs in the conjunct order, found in subordinate clauses, in contrast to the independent order, in matrix clauses, discussed so far. The correspondence between the π-features on arguments and the theme-signs inserted in the conjunct is distinct from the independent, but the head spelling-out a theme-sign must still encode the π-features of both clausal arguments in a transitive. Further I look at a complication for the Participant Hierarchy described in (1) which states that 2nd person outranks 1st, contradicted by certain suffixes that appear to use a 1st over 2nd person ranking as discussed by Macaulay (2005).

In section 3.3 I discuss work by Bruening (2001, 205, 2009) that investigates the syntactic effects of the Inverse System in some Algonquian languages. He looks at the different behaviour of scope and variable binding in relation to the direct and inverse in

Passamaquoddy, an Eastern Algonquian language. He claims the inverse involves syntactic inversion of arguments by A-movement of the internal argument over the external argument. I argue that the A-movement approach is not necessary for Ojibwe in particular, and that the mechanics I propose to spell-out theme-sign suffixes are needed whether there is movement or not. A complete analysis of the Inverse System needs to recognize theme-sign morphology outside the core direct/inverse local/non-local suffixes in order to get an accurate view of the mechanics underlying the system.

3.1 Interaction of Inanimate Arguments

The core Inverse System discussed up to this point involves transitive verbs in matrix clauses with two animate arguments. In this section I look at other verbal paradigms, in particular transitive verbs with an animate external argument but an inanimate internal argument, which do not use the core Inverse System theme-signs. Instead, these *transitive inanimate* verbs use theme-signs that are traditionally associated with an intransitive paradigm. I claim that animate arguments (1st, 2nd or 3rd person) in Ojibwe can have specified π-features, but inanimate arguments never bear π-features. This means that inanimate arguments pattern alongside syntactically absent arguments in terms of π-agreement, and this is why transitives with only one animate argument use the same theme-signs as intransitives with an animate argument: there is only one instance of Agree with the π-probe on *v* in both cases. First I look at the puzzle of transitive inanimate verbs bearing animate intransitive theme-signs, and then I look at the suffixes *-igee* and *-iwee* that have been considered detransitivizers, but that I claim are actually types of animate intransitive theme-signs.

3.1.1 Transitive Inanimate vs. Animate Intransitive verbs

This section reexamines the traditional Algonquianist view of animate intransitive verbal suffixes that appear on transitive inanimate verb stems. The suffixes in question include those labeled *finals* in the Algonquian literature that are described as marking the classification of a verb in terms of transitivity and the animacy of its arguments, thus creating a puzzle of why a transitive verb would bear an intransitive marker. I claim that only animate DPs can bear π-features in Ojibwe, while inanimates are void of π-features

and pattern like syntactically absent arguments with respect to π-agreement. I further identify the suffixes shared between these transitives and intransitives as theme-sign suffixes spelling-out *v* as complex π-agreement. Animate intransitive and transitive inanimates bear identical theme-signs because both have a single, animate argument bearing π-features and mark the *v* probe in the same way.

I first review the data in question and the traditional classifications of the verbal finals, or theme-signs, that create the mismatch between transitive inanimate and animate intransitive verbs. Second, I show that inanimates should be considered personless and that transitive inanimate verbs are fully syntactically transitive, indicating that it is only the use of certain morphology that makes them appear intransitive. Third, I implement my Cyclic Agree analysis to derive what I identify as theme-sign suffixes spelling-out person agreement on these transitive inanimate and animate intransitive verbs

First, I lay out the puzzling data and how they are viewed within Algonquian tradition. In the traditional literature suffixes called finals on the Ojibwe verb are described as encoding the transitivity of the verb as well as the animacy of its arguments (Bloomfield 1957). There are four verbal paradigms with the traditional descriptions listed in (35).[27]

(35) Algonquian verb classes:

1. Transitive Animate verbs (VTA) are transitive or ditransitive with animate arguments (paradigm for the core Inverse System);
2. Transitive Inanimate verbs (VTI) are transitive, with an animate external argument but an inanimate internal argument;
3. Animate Intransitive verbs (VAI) are intransitive with an animate sole argument;
4. Inanimate Intransitive (VII) verbs are intransitive, or impersonal, with an inanimate sole argument.

Of interest are the transitive inanimate (VTI) and animate intransitive (VAI) verbs that

[27] In Chapter 2 I dealt with the transitive animate (VTA) paradigm where the theme-sign suffixes on the verb are part of the core Inverse System in Ojibwe.

share certain suffixes, bolded in (36). These suffixes are identified as *finals* in the literature, which are described as encoding the transitivity of the verb and the animacy of its arguments.[28] What is interesting is that the finals *–oo*, *-i* and *–am* are associated with VAI stems and are considered to reflect intransitivity and animacy of the verb, but still appear on the VTI forms (see also discussion in Piggott 1989).[29]

(36) Transitive Inanimate (VTI):

a. waab-am-d-**am** 'sees it'
b. bii-d-**oo** 'bring it'
c. naa-d-**i** 'fetch it'

Animate Intransitive (VAI):

a′. asosod-**am** 'coughs'
b′. bimibat-**oo** 'run'
c′. maw-**i** 'cry'

(Piggott 1989:181-2)

Data like that in (36) presents a puzzle since these VAI finals appear on VTI verbs but, based on the paradigm divisions summarized in (35), these two paradigms do not match with respect to transitivity or animacy, according to traditional divisions. They would be expected to occupy opposite paradigms, as in the table in (37).

(37)

	Transitive	Intransitive
Animate	VTA	VAI
Inanimate	VTI	VII

Bloomfield's (1957) view of data like *biidoo* 'bring it' (36)b is that it is a *pseudo-transitive* that has a pseudo or dummy object, implying that certain VTIs are functionally

[28] Bloomfield (1957) identifies the transitive inanimate suffix *–am* as a theme-sign, and Valentine (2001:310) calls the VTI finals in (36) theme-signs. However, they view these suffixes as reflecting the transitivity of the verb and the animacy of the internal argument, which is different from my analysis that theme-sign suffixes are directly reflecting person agreement (i.e. they do not directly reflect transitivity marking). Further, I group the VTI/VAI finals together as theme-signs, where Bloomfield (1957) only identifies certain VTI/VAI finals as theme-signs.

[29] Which VTI or VAI final is used is lexically specified for a given verb.

intransitive.[30] What makes the transitive inanimate forms appear intransitive is their use of animate intransitive finals. I, however, claim that all the VTIs in (36) are syntactically transitive and that these suffixes do not directly correspond to the transitivity or animacy specification of a verb. Instead I argue that these suffixes are theme-signs spelling-out person agreement from the complex π-probe on little *v*.[31]

My Cyclic Agree analysis of theme-signs in transitive animate (VTA) paradigms

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[30] Piggott (1989) discusses other forms labeled pseudo-transitives that can be: intransitive (i)a; take an inanimate internal argument (i)b; or an animate internal argument (i)c without changing the final/theme-sign suffix.

(i) a. gimood-i
steal-VAI
'He steals.'

b. ni-gimood-i-n jiimaan
1-steal-VAI-INAN canoe
'He steals a canoe(inan).'

c. o-gimood-i-n-an mishiimin-an
3-steal-VAI-INAN-OBV apple-OBV
'He steals an apple(anim).' (Piggott 1989:182)

This data presents another puzzle of why a small class of verbs can ignore the animacy of its internal argument. However, notice in (i)c how there is an inanimate suffix *–n* even though both arguments are lexically animate. I view pseudo-transitives as de-animating their internal arguments, where a verb like *gimoodi* 'steal' can only logically take inanimate Themes and some process strips any animacy or π-features from the Theme. The precise analysis of pseudo-transitives is left for further research.

[31] The claim that these VAI/VTI finals are theme-sign suffixes spelling-out little *v* is supported by the fact that the finals and canonical transitive animate theme-signs are in the same morphological slot. Seen in (i), all the morphemes I claim are theme-signs (bolded) come to the left of negation *–sii* and plural agreement, e.g. *–min* '1st plural', and the right of the verbal stem (e.g. √root-categorizer).

(i) a. n-waab-am-**aa**-sii-min *Transitive animate*
1-see-TRANS-DIR(NL)-NEG-1pl
'We(exclu) do not see him/her.' (Valentine 2001:291)

b. n-waab-am-d-**am**-sii-min *Transitive inanimate*
1-see-TRANS-INAN-NEG-1pl
'We(exclu) do not see it.' (Valentine 2001:310-2)

c. n-mig-**i**-sii-min *Animate intransitive*
1-bark-VAI-NEG-1pl
'We(exclu) do not bark.' (Valentine 2001:234)

(presented in Chapter 2) predicts that theme-signs are possible across Ojibwe verbal paradigms and that they will reflect the π-specification of clausal arguments. I claim that VTI and VAI constructions bear the same theme-signs because only animate arguments bear π-features and interact with person agreement while inanimate arguments are void of π-features and pattern with syntactically absent arguments with respect to person agreement. The π-probe on *v* will enter only one Agree relation in VTI and VAI constructions since both have a single animate argument, thereby spelling-out the same theme-sign suffix.

Here I demonstrate the syntactic transitivity of transitive animate verbs despite bearing VAI finals, and the personless status of inanimate arguments (as has been proposed for 3rd person in other languages: Harley & Ritter 2002; Anagnostopoulou 2005; Adger & Harbour 2007, for example).

VTIs must be analyzed as syntactically transitive because they obligatorily select for two syntactic objects: The transitive inanimate form *waabamdam* in (38)a can only mean 'He/she sees it,' and the object cannot be absent or unspecified.[32] Further, beyond the theme-sign morphology shared with VAIs, VTIs share certain morphology with VTA verbs, which are unambiguously transitive. I claim that the suffix *–am/-an*[33] (bolded in (38)) attaching directly to the root *waab* 'see' is a categorizing head that creates a transitive verb and introduces the internal argument (seen below in (40)). This transitive *-am* suffix is not shared with the intransitive (VAI and VII) paradigms, which do not introduce two syntactic arguments.

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[32] If the object is non-specific, or absent, the form changes from VTI, *dakondan* 'He/she bites it' in (i)a, to a kind of 'antipassive', in the terminology of Kyriakaki (2009), marked by a different theme-sign *-igee* seen in (ii)b, *dakonjigee* 'He/she bites (things)'. This type of data is discussed further in section 3.1.2.

(i) a. dakom-d-**am** /dakondan/
bite-INAN-**VAI**
'He/she bites it(inan).' (Valentine 2001:441)

b. dakom-d-**igee** /dakonǰigee/
bite-INAN-**AP**
'He/she bites things(unspecified)' (Piggott 1989:201)

[33] Note that there are two distinct *–am* suffixes: (i) the VAI theme-sign like in (36)a that appears at the right edge of the stem, and (ii) the transitive marker like in (38)b that appears next to the verb root.

(38) a. n-waab-**am**-d-am-n
1-see-**TRANS**-INAN-VAI-INAN
'I see it(inan).'
*'I see.' / *'I see something(unspecified).' (Piggott 1989:196)

b. n-waab-**am**-aa
1-see-**TRANS**-DIR(NL)
'I see him/her(anim).' (Valentine 2001:270)

Turning to the status of inanimate arguments, I show that inanimates do not bear π-features and do not interact with person agreement. Consider the construction in (38)a, which shows two agreement slots corresponding exclusively the inanimate internal argument: *-n* and *-d*. The suffix *-n* 'inanimate' (called *N-registration* by Rhodes 1990) may be viewed as phi-agreement with an [Inanimate] gender feature, but cannot be considered π-agreement as it does not occupy a morphological slot that can also house π-agreement with animate arguments. The *–d* 'inanimate' suffix, which attaches to the root inside the theme-sign, is only found in VTI stems and corresponds to the selection of an inanimate internal argument in a transitive.[34] The *–d* can either be seen as another instance of gender agreement with an [Inanimate] feature on the internal argument, or as restricting the selection of the internal argument to DPs bearing [Inanimate].

Although there is verbal agreement with inanimates, it is never realized as person agreement, or in a slot that encodes only π-features. Consider the data in (39) illustrating the contrast in person agreement between animates and inanimates. (39)a,b show that when the adjectival predicate 'big' has an animate argument it bears agreement morphemes, namely *n-* '1st person' or *–o/-w* '3rd person'. On the other hand, (39)c shows 'big' taking an inanimate argument and no person agreement morphemes are present.[35]

[34] The *–d* suffix may not overtly appear depending on the phonological form of the stem, discussed in Piggott (1989:180).

[35] The root of *midid/michaa* 'big' uses different allomorphs in the animate intransitive or inanimate intransitive setting.

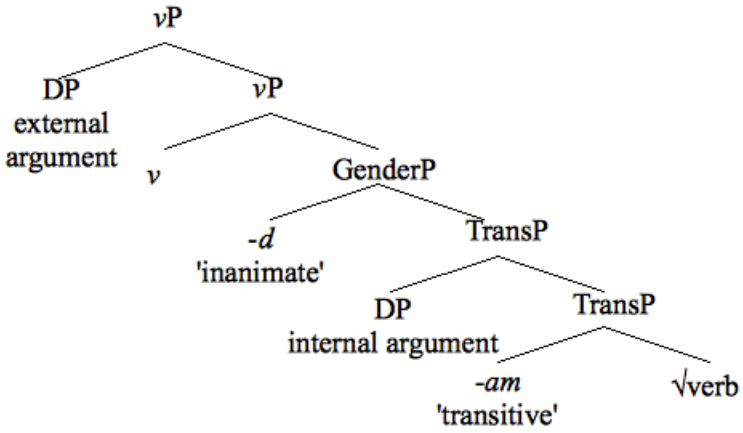
(39) a. n-mid-id
1-big-VAI
'I am big.'
b. mid-id-o
big-VAI-3
'He/she is big.'
c. mich-aa
big-VII
'It is big.' (Valentine 2001:75,256)

I consider inanimates to lack any specification for person and they cannot Agree with a π-probe in the syntactic derivation. Also accepting that VTIs are syntactically transitive, VTIs and VAIs share theme-sign suffixes because both constructions have only one animate argument bearing π-features (i.e. VTI inanimate internal argument has no π-features) and therefore both have a single Agree relation with the π-probe on *v* which spells-out identically for transitive inanimate and animate intransitive verbs (illustrated below in (41) and (42)).

I assume an articulated structure of a VTI (e.g. (38)a) like (40), where *v* spells-out the theme-sign suffixes, TransP (or equally $v_{categorizer}$P) is headed by the suffix *–am* (Note: different from the theme-sign/final *-am*) that introduces the internal argument, and *–d* is found in GenderP agreeing with the inanimate gender of the internal argument. The structures in the derivations below will abbreviate the GenderP in (40) as VPs.[36]

[36] TransP is only found in transitives (i.e. VTA, VTI) since it introduces the internal argument, and another categorizing head is assumed to merge in intransitives. The Gender head selects for TransP and I assume it spells-out a null exponent when the internal argument is animate, as in the VTA paradigm. The *–n* 'inanimate' suffix is assumed to appear above the *v*P level.

(40) Transitive inanimate structure



Now that I have established that VTIs are syntactically transitive and that inanimate arguments are void of π-features (although they may bear gender features), I present my derivations of the theme-signs in the VTI and VAI paradigms. I claim that the VAI finals are in fact theme-signs, and that theme-signs are person agreement and not markers of transitivity and animacy in the traditional sense (see (35)). My analysis unifies the theme-sign suffixes across the transitive animate, transitive inanimate and animate intransitive paradigms.[37]

[37] There is the fourth verbal paradigm of inanimate intransitive verbs (VII) that take a single, inanimate argument. I maintain that these verbs also have theme-signs that reflect π-agreement, but because VIIs involve no animate arguments bearing π-features, a VII theme-sign is instead the default spell-out of the π-probe on *v* when there is no person Agree in the syntactic derivation. My view derives the alternations between the light verb VAI and VII forms illustrated in (i):

(i)		VAI	VII	
	a.	misko-zi	miskw-aa	'be red'
	b.	bimaash-i	bimaas-in	'sail along'
	c.	sanagi-zi	sanag-ad	'be difficult; experience difficulty'

The VAI forms that take an animate sole argument spell-out one set of theme-signs corresponding to a light verb, *v*, bearing a π-probe that has entered one Agree relation. The VII theme-signs correspond to a *v* spelling-out with a π-probe that has no features checked and is therefore the default form alternating with the VAI suffix. The lack of Agree with the π-probe is unproblematic under the view of Preminger (2011) who argues that a probe must attempt to Agree, but does not cause ungrammaticality if an appropriate goal is not found.

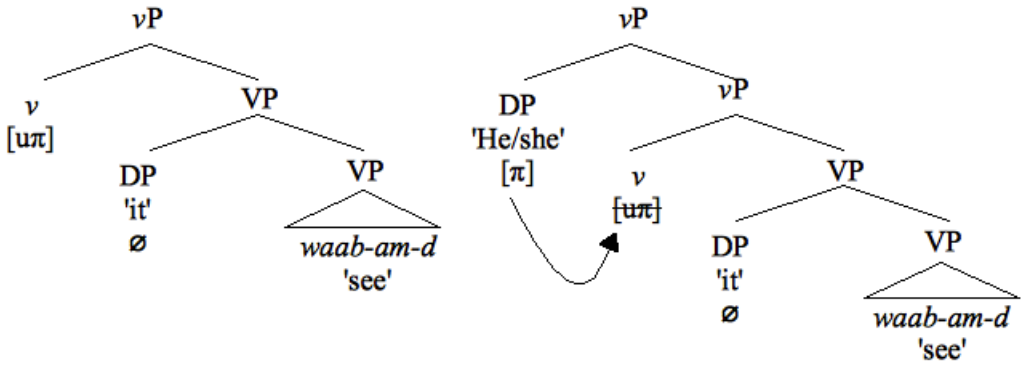
Consider the derivations in (41) and (42). (41) involves the VTI *waaband* 'see': *v* merges with the inanimate internal argument 'it' in its complement, seen in (a), Cycle 1. No checking with the π-probe on *v* occurs since 'it,' as an inanimate, is featureless with respect to person. Cycle 2 (b) shows the merging of the animate external argument, which does have an interpretable [π] feature that matches a feature on *v*. This derivation involves only one instance of matching on *v*, corresponding to the theme-sign spell-out *-am* (for type I verbs). The form of the π-probe is distinct from transitive animate verbs with two animate arguments that undergo two checking relationships (e.g. *v*[~~uF~~,~~uG~~]), rather than the single Agree relation between *v* and the external argument seen in transitive inanimate derivations.[38]

(41) VTI: w-waab-an-d-**am** (see (36)a)

3-see-TRANS-INAN-VAI

'He/she sees it.' Vocab Insertion: *v*[~~uπ~~] → /-am/ / VERB_{I}

a. Cycle 1 (no feature matching/checking) b. Cycle 2: EA Goal



Now compare the VTI in (41) with the VAI derivation for *asosod* 'cough' given in (42). When *v* merges there is no argument in its complement (because the construction is intransitive) and no checking occurs in Cycle 1 in (42)a, just like in (41)a for the VTI. In Cycle 2 in (42)b, the animate external argument bearing a π-specification merges and Agrees with *v*, which was also the case in (41)b for the VTI. Only one instance of matching with *v* occurs, and so this spells-out the theme-sign *-am* (for type I verbs)

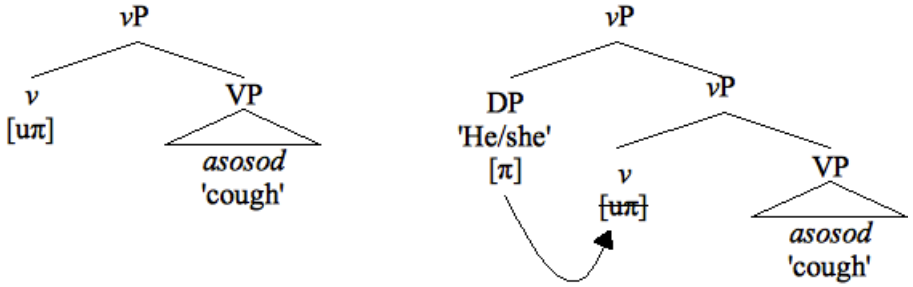
[38] I abbreviate the complex probe on *v* from its full form in (7) to [uπ]. I further simplify the position of the internal argument for ease of presentation, which is posited in the specifier of TransP in (40).

because the probe on *v* has been marked in an identical way to the VTI in (41).

(42) VAI: asosod-**am** (see (36)a′)

'He/she coughs.' Vocab Insertion: *v*[~~uπ~~] → /-am/ / VERB_{I}

a. Cycle 1 (no feature matching/checking) b. Cycle 2: EA Goal



Since VAIs and VTIs both have only one animate (and therefore personful) argument, they must bear the same set of theme-signs because the theme-sign is the spell-out of person agreement on *v*. Different VAI theme-signs are lexically specified for different sets of verbs, for example, class I is shown in (41) and (42), but the same holds for other types of verbs. (43) illustrates another set of VTI and VAI derivations with class II verbs that take the *–oo* theme-sign rather than *–am*:[39]

(43) a. VTI: w-bii-d-**oo** b. VAI: bimibat-**oo**

'He/she brings it.' 'He/she runs.'

EA	*v*	IA	EA	*v*
[π] –	[~~uπ~~]	Ø	[π] –	[~~uπ~~]

Vocab Insertion: *v*[~~uπ~~] → /-oo/ / VERB_{II}

[39] It may be noted that while VTA theme-signs make a distinction between local (only SAPs) and non-local (at least one 3rd person) forms, VAI/VTI theme-signs do not. The spell-out of VAI/VTI theme-signs is generalized to whether an Agree relation has occurred with *v* or not, and not which π-features are checked, unlike the VTA paradigm.

I predict that VTI and VAI constructions will bear the same sets of theme-signs because I claim that theme-signs are person agreement, and both verbs have only one argument that can Agree with the π-probe on *v*. Therefore, syntactic transitivity can be realized as apparent morphological intransitivity when an argument lacks π-features, since Ojibwe theme-signs are person agreement. VTI aligns with both VTA and VAI along two different dimensions – one in syntactic transitivity, and the other in the morphology (44):

(44)

Morph / **Syntax**	Transitive	Intransitive
Transitive	VTA	
Intransitive	VTI	VAI

VTIs only appear to be intransitive when the theme-sign morphology is considered, but I am claiming that this morpheme does not directly reflect transitivity and instead directly indicates the π-features of the clausal arguments. Animate arguments bear interpretable π-features, but inanimate ones do not, causing them to pattern alongside absent arguments with respect to Person agreement.

Continuing with the discussion of inanimate arguments, the following section discusses "detransitive" ditransitives constructions. These detransitives have one implicit and one overt internal argument and these bear the theme-signs -*igee* or -*iwee*, previously claimed to be antipassive markers by Kyriakaki (2009). I argue that these are actually VTI/VAI theme-sign suffixes that show the equal treatment of inanimate and absent arguments in terms of person agreement.

3.1.2 "Detransitive" ditransitives

In this subsection I look further into the personless status of inanimate arguments and their relation to transitive constructions derived from ditransitive stems that have been dubbed *antipassives* by Kyriakaki (2009). Kyriakaki claims that the theme-signs -*igee* and -*iwee* mark an antipassive construction and absorb an internal argument. Alternatively, I argue that these suffixes are transitive inanimate (VTI) or animate intransitive (VAI) theme-signs that reflect π-agreement. These suffixes appear in cases where an internal

argument has been "absorbed," but also when an internal argument is inanimate, and they are best analyzed as *v* Agreeing with a single π-feature bearing argument.

Kyriakaki (2009) discusses a class of verbs traditionally labeled *animate intransitive plus object verbs* (VAIO) that appear to have ditransitive stems and an implicit Goal internal argument. VAIO constructions are marked by the suffix *-igee* or *-iwee*, which Kyriakaki claims are antipassive markers in sentences like (45)b and (46). Patient or Theme arguments can be optionally realized in VAIO constructions.[40] For example, (45)a shows the ditransitive version of 'borrow' taking the VTA local direct theme-sign and (45)b shows the detransitivized VAIO version of this verb marked by *-(i)gee* where the Source (or Goal) becomes implicit. Similarly, (46) illustrates detransitivized ditransitives (i.e. VAIOs) with an implicit Goal and marked by *-(i)wee*.

(45) a. g-ga-wii-daaw-m-in g-wepjigaans
2-FUT-MOD-borrow-TRANS-INV(L) 2-hammer
'I want to borrow a hammer from you.' (Valentine 2001: 772)

b. nimosh ndoo-daaw-n'-gee-naa
dog 1-borrow-TRANS-AP-1pl
'We borrow a dog.' (Valentine 2001:70)

(46) a. n-gii-daa-wee-n-an n-doodaaba-an
1-PST-sell-AP-inan.sg-OBV 1-car-OBV
'I sold my car (implied: to someone)'. (Rhodes 1990:401)

b. n-gii-wih-wee-n n-jiimaan
1-PST-lend-AP-n 1-boat
'I lent out my boat (implied to someone).' (Kyriakaki 2009:20)

The suffixes *-igee* and *-iwee* can also appear with transitive stems that have been detransitivized, creating animate intransitive (VAI) constructions, seen in (47). For

[40] Rhodes (1990) claims that the Theme or "secondary" object in constructions like (46) is a true argument given that it behaves the same way as secondary object in the presence of a "primary" object (i.e. a Goal) with respect to verbal agreement and quantifier stranding.

example, (47)a *naadmaagee* 'help' implies the internal argument 'people' and does not take an overt DP object.

(47) a. naadmaa-gee 'help people'
b. dngishkaa-gee 'kick people'
c. bzindaa-gee 'listen (to people)'
d. babiih-wee 'wait (for people)'
e. nshi-wee 'kill; commit murder'
f. maajiiwzh-iwee 'take people away' (Valentine 2001:403,7)

However, it is not the case that *-igee* and *-iwee* always mark a detransitive form. Kyriakaki (2009) points out that *-iwee* is sometimes found in non-derived intransitive forms, like those in (48) where it is not transparently decreasing the valency of the verb. Although Kyriakaki claims that *-igee* always occurs in detransitive settings, there are also instances where *-igee* appears in non-derived intransitive forms, like the forms in (49).[41]

(48) a. b-wee-d 'roast something'
b. bood-wee-d 'make a fire' (Valentine 2001:242)

(49) a. ni-gee 'portage'
b. mnoch-gee 'do well; do/act right' (Valentine 2001:406)

In contrast to Kyriakaki (2009), I argue that the suffixes–*igee* and –*iwee* are not themselves detransitivizers and are not antipassive markers. Instead, I claim that these

[41] Further, the morphemes –*igee* and –*iwee* have been previously distinguished from each other in terms of the semantic content of the implicit argument they signal. The –*iwee* final is usually considered to denote an implicit human goal, as in (47)d-f, but is also phonologically used over –*igee* for stems ending in /h/, /N/, /S/ (related to certain morphemes) and sometimes /n/ (Valentine 2001:406). The –*igee* version is a kind of elsewhere allomorph under this view. Although, considering the range of data, it seems that the semantic distinction of "human goal" for derivations using –*iwee* may have been lost over time since this morpheme is used in (50) below, when the Goal is inanimate rather than human. *-iwee* usually implies a human goal in a detransitive setting but this allomorph is not used exclusively in such a context.

suffixes are VAI or VTI theme-signs (which have the same form, section 3.1.1), spelling-out person agreement, and are inserted with stems that are not lexically specified for another VAI/VTI final. The *-igee/-iwee* suffixes should be recognized as theme-signs because they are in complementary distribution with the other theme-signs, appearing in the same slot as the theme-sign suffix. For example, in (45) both the theme-sign *–in* 'local inverse' and *–(i)gee* immediately follow the *–am* 'transitive' suffix (realized as *-m* in (a) and *–n'* in (b)), and both come inside other agreement, such as plural or obviation (e.g. (45)b for *-igee* and (46)a for *-iwee*). Further, these suffixes do not only occur in detransitive constructions but also in intransitives (48)-(49), as well as ditransitive and transitive forms that have an inanimate internal argument (discussed for (50)).

The view of *-igee/-iwee* as VAI theme-signs is validated by the ditransitive construction in (50), which is not detransitive but has three DP arguments. (50) has *-iwee* in the theme-sign slot and has an animate (i.e. personful) external argument and two inanimate (i.e. personless) internal arguments. I predict a VAI (or, equally VTI, as per section 3.1.1) theme-sign for (50) because there is a single animate argument 'John' and hence a single Agree relation with the π-probe on *v*.

(50) John gii-mii-g-**wee** zhooniyaa namaogimgoon/edzhikinomaging/nishaa
John PST-give-TRANS-*iwee* money(inan) church/school/charity(inan)
'John gave a money to the church/school/charity.'
(Ella Waukey, Berdina Johnston June 15, 2009)

The constructions in (45)a and (46)-(50) all fit the analysis of *-igee/-iwee* as default VAI theme-signs. These theme-signs are inserted in animate intransitive or transitive inanimate contexts with stems that are not lexically specified for another VAI theme-sign.[42]

The remaining question is how the detransitive forms that are marked by *-igee* or *-iwee* should be viewed. I claim that the detransitivization in constructions like (46) and (47) involves a null syntactic head that merges above the internal argument and

[42] Recall from the previous section that different VAI/VTI finals/theme-signs are inserted depending on the lexical class of the verb.

suppresses it. The detransitivization can not be done by *–igee/-iwee* because neither form appears in exclusively detransitive contexts, meaning they do not always co-occur with the suppression of an internal argument.

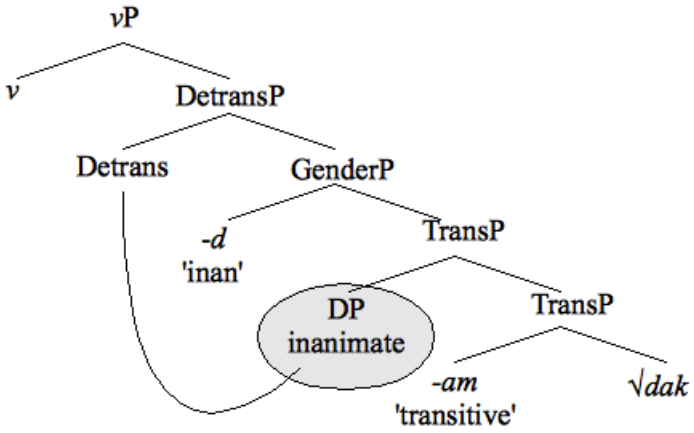
Consider the data in (51) showing the detransitivization of the monotransitive *dakom* 'bite'. Both forms in (51) bear the suffix *-am* (phonologically realized as *–om*) that I claim categorizes the root, *dak*, and introduces an internal argument (see section 3.1.1). (51)a is the detransitive of the transitive animate version of 'bite' where an animate internal argument becomes the implicit 'people', and (51)b is the detransitive of the transitive inanimate with the implicit internal argument 'things'.

(51) a. dak-om-igee
bite-TRANS-VAI
'bite (people)'
b. dak-om-d-igee
bite-TRANS-INAN-VAI
'bite (things)' (Piggott 1989:201)

I posit that the transitive suffix *-am/-om* does introduce an internal argument like a normal transitive, which must be present at some point in the derivation to get the animacy difference between the implicit arguments in (51)a,b. The inanimate implicit argument in (51)b is even indexed by *-d* 'inanimate'. I propose that a detransitive head merges above the internal argument (but below *v*) that absorbs the internal argument (e.g. by deleting its features rendering it syntactically inactive). As schematized in (52), the internal argument is present at the beginning of the derivation but is made implicit by a null detransitivizing element.[43]

[43] I place the detransitivizing element in *DetransP*, for lack of a better label. Further investigation is required to determine the exact derivation of these types of detransitive constructions in Ojibwe, however this does not take away from my discussion of *–igee/-iwee* which pattern with other VTI/VAI theme-sign suffixes and not exclusively in 'antipassive' or detransitive constructions.

(52) Detransitive structure of (51)b



Given (52), by the time *v* with its complex π-probe merges, the internal argument has become inaccessible and cannot Agree with *v*. The VAI theme-sign *-igee* is inserted in constructions like (51) because *v* can only Agree with the animate external argument and not an implicit internal argument, even if it merged as an animate.

Under my analysis, *-igee* and *-iwee* are VAI or VTI theme-sign suffixes reflecting a single instance of person Agree of *v* with an animate external argument. The data in this section further shows the patterning of inanimate arguments with syntactically absent or implicit arguments with respect to π-agreement (e.g. compare (46) and (50)). My analysis of theme-sign suffixes as person agreement covers the realization of what Kyriakaki (2009) calls antipassives, where *-igee/-iwee* do not actually detransitivize a stem themselves, but are inserted as default VAI theme-signs when no other VAI form is lexically specified.

Now I move on from the theme-signs of the independent order, found in matrix clauses, so far discussed in this Chapter, to consider the morphology of the conjunct order. The conjunct order occurs in subordinate clauses in Ojibwe and uses the theme-signs found in the independent order. However, the theme-signs do not necessarily correspond to the same π-feature combinations in the conjunct as they do in the independent, but I argue that they are still the spell-out from little *v*, which must be able to encode the π-features of both arguments of a transitive.

3.2 Complications of Ojibwe Person Agreement

This section looks at a wider range of Ojibwe morphology and the spell-out of π-features. Section 3.2.1 discusses the transitive animate paradigm in the *conjunct order* that uses the theme-signs associated with the Inverse System but with a different correspondence to the π-features of the clause. Section 3.2.2 considers the realization of verbal plural suffixes whose form is dependent on the π-specification of the argument they correspond to.

3.2.1 Person agreement in the Conjunct Order

Up to this point I have only been considering theme-signs in the independent order – the agreement system found in independent, matrix clauses. Ojibwe clauses can also be found in the *conjunct order*, used in clauses that are embedded in the syntax or dependent on the discourse (see Cook 2008 for some discussion on Plains Cree). Conjunct clauses lack the person proclitics used in the independent (see (23) in Chapter 2.3.3) and instead encode any argument features in a system of suffixes, some of which are shared with the independent and some of which are not. The VTA theme-signs, listed in (5), are also found in VTA conjunct clauses and show a kind of person agreement, however they do not have the same direct/inverse correspondences as the theme-signs in the independent order.

First, I look at how the bulk of conjunct transitive animate theme-signs can be analyzed as agreement with the internal argument. Second I discuss the puzzling use of *-igw*, the non-local inverse in the independent, which instead corresponds to agreement with relatively unspecified external arguments. I argue that to account for the behaviour of the conjunct theme-signs, *v* must still encode the π-features of the internal and external argument, but that the conjunct is subject to a different set of spell-out rules, relativized to conjunct clauses. Additionally, the theme-signs of transitive inanimate (VTI) and animate intransitive (VAI) verbs do not change their correspondence between the independent and conjunct and my analysis developed in section 3.1 remains unchanged for these paradigms.

Compare the argument combinations in (53) between the conjunct and independent orders. The person proclitics seen in the independent are lacking in the conjunct verbal complexes, but the conjunct has suffixes that agree with the person features of the

external argument. Even if the person specifications of the arguments are kept consistent, different theme-signs are used in the conjunct than in the independent.[44,45]

(53)	Conjunct	Independent	
a.	waabm-i-d	n-waabm-ig	
	see-**DIR(L)?**-3	1-see-INV(NL)	'He sees me.'
b.	waabm-in-g	g-waabm-ig	
	see-**INV(L)?**-3	1-see-INV(NL)	'He sees you.'
c.	waabm-*ø*-ag	n-waabm-aa	
	see-ø-1subj	1-see-DIR(NL)	'I see him.'
d.	waabm-*ø*-ad	g-waabm-aa	
	see-ø-2subj	2-see-DIR(NL)	'You see him.'
e.	waabm-aa-d	w-waabm-aa-n	'He(prox) sees him(obv)'
	see-**DIR(NL)?**-3	3-see-DIR(NL)-OBV	
	(Valentine 2001:295)		

As seen in (53)a-b, contexts that use the non-local inverse in the independent (i.e. *–igw*, a 3rd person external over an SAP internal argument) are appearing with local theme-signs, which only occur with two SAP arguments in the independent. (53)c-d are non-local direct in the independent (i.e. *–aa*, SAP external over 3rd person internal argument), but the conjunct uses a null theme-sign. (53)e for 'He(prox) sees him(obv),' shows a direct non-local theme-sign, which is the same theme-sign employed in the independent form. The theme-signs do not match up across the independent and conjunct orders.

[44] For the theme-sign suffixes I use the glosses from the independent order, but they are marked by '?' to indicate that these are not necessarily the exact glosses that correspond to the usage of these suffixes in the conjunct order.

[45] For reference, the relevant conjunct person agreement suffixes (not found in the independent) are listed: *-d/-g* '3rd person'; *-(w)ag/-(y)aan(h)* '1st subject'; *-ad/-(y)an* '2nd subject' (see full paradigm in Valentine 2001:295,9).

What, then, is the pattern that determines which theme-sign is inserted in the conjunct transitive animate paradigm? First, when only SAP or proximate 3rd person external arguments are considered, the conjunct theme-signs look like object/internal argument agreement, and not like the inverse system of the independent order. McGinnis (1999) makes this observation, stating that the theme-signs correspond to object agreement, particularly when considering the conjunct order agreement. The independent local direct *–i* corresponds to 1st person internal arguments (54) and the local inverse *–in* corresponds to 2nd person internal arguments (55).

(54) a. waabm-i-d *Conjunct*
see-DIR(L)/1obj-3
'He sees me.'

b. waabm-i-yan
see-DIR(L)/1obj-2subj
'You see me.' (Valentine 2001:295)

(55) a. waabm-in-g *Conjunct*
see-INV(L)/2obj-3
'He sees you.'

b. waabm-in-aan
see-INV(L)/2obj-1subj
'I see you.' (Valentine 2001:295)

Conjunct agreement with 3rd person internal arguments seems to alternate between a null exponent, as in (53)c-d when the subject is 1st or 2nd person, and the non-local direct theme-sign *-aa*, as in (53)e with a 3rd person subject. However, I argue that the alternation between *-ø* and *–aa* is due to the phonology and is not based on the π-features of the external argument. When we look at the negative conjunct VTA paradigm, it is always the *-aa* suffix that is used, shown in (56), and there is no null variant like in the

affirmative in (53)c,d. Negation is marked by *–si(i)*, which immediately follows the theme-sign slot.[46]

(56) a. waabm-aa-si-wag
see-**DIR(NL)?**-NEG-1subj
'I do not see him (conjunct).'

b. waabm-aa-si-wan-d
see-**DIR(NL)?**-NEG-2subj-3
'You do not see him (conjunct).'

c. waabm-aa-si-d-waa
see-**DIR(NL)?**-NEG-3-3pl
'They(prox) do not see him(obv) (conjunct).'
(Valentine 2001:299)

The alternation between *-ø* and *-aa* for 3rd person reduces to Ojibwe's intolerance of vowel hiatus (see Goddard and Bragdon 1988). Piggott & Newell (2010) state that Ojibwe resolves vowel hiatus between suffixes by vowel deletion, and the theme-sign suffix *-aa* is a long vowel and potentially the target of deletion. In the negative paradigm the theme-sign is always followed by a consonant via the negative suffix *–si(i)* and no hiatus can arise so the theme-sign suffix can spell-out unaffected. But when the suffix that spells-out adjacent to the theme-sign slot begins with a vowel, an adjustment must be

[46] The negative conjunct shows the local theme-signs as internal argument agreement with 1st and 2nd person as it does in the affirmative, given in (i). There is, however, a phonological complication with the 2nd person objects marked by *–in* (independent local inverse) in the affirmative that are reduced to *–i* when adjacent to the negative suffix *–si* (i)b. I consider this to be a phonological interaction between the two coronal consonants: *waabm-in-si-no-g*.

(i) a. waabm-i-si-g
see-DIR(L)/1obj-NEG-3obj
'He does not see me (conjunct).'

b. waabm-i(n)-si-no-g
see-INV(L)/2obj-NEG-2-3subj
'He does not see me (conjunct).' (Valentine 2001:299)

Thank you to Norvin Richards for pointing out the visibility of morphemes in the negative paradigm.

made to avoid vowel hiatus. This is the case in the affirmative conjunct when the 3rd person object appears with a 1st or 2nd person subject (57). Either it can be assumed that the theme-sign suffix is deleted to avoid hiatus, or indeed that phonologically conditioned allomorphy selects a null exponent to avoid hiatus. The syntactic head corresponding to 3rd person object agreement in the conjunct remains the same and the use of *-aa* or *-ø* is decided entirely in the phonological component.

(57) a. waabm-aa-ag → [waabmag] *Conjunct*
see-DIR(NL)/3obj-1subj
'I see him.'

b. waabm-aa-ad → [waabmad]
see-DIR(NL)/3obj -2subj
'You see him.' (Valentine 2001:295)

For the conjunct data considered thus far, the theme-signs in the conjunct do not share the direct/inverse or local/non-local correspondences with the independent, but instead neatly show agreement with the π-features of the internal argument. The conjunct internal argument agreement is summarized in (58).

(58) Conjunct theme-signs: SAPs vs. 3 Proximate argument combinations

1st object:	*-i*	(Independent local direct theme-sign)
2nd object:	*-in*	(Independent local direct theme-sign)
3rd object:	*-aa*	(Independent non-local direct theme-sign)

However, treating the conjunct theme-signs as internal argument agreement is not the full story, in particular we have not yet seen how *–igw*, the independent non-local inverse, is distributed in the conjunct. The conjunct forms given above have external arguments that are SAPs or proximate 3rd persons, but when the external argument is less specified, like a 3rd person obviative, the object agreement patterns do not quite work. Consider the data in (59) where the external argument is either a backgrounded 3rd person obviative (a), or an

unspecified animate agent (b,c). These constructions use *–igw/-igo*, which is the non-local inverse in the independent paradigm.

(59)

	Conjunct	Independent
a.	waabm-igo-d	w-waabm-igo-on
	see-**INV(L)?**-3	3-see-INV(NL)-OBV
	'He(obv) sees him(prox).'	
b.	waabm-igo-o-yaanh	n-waabm-igo-o
	see-**INV(L)?**-X-1subj	1-see-INV(NL)-X
	'Someone (unspecified) sees me.'/'I am seen.'	
c.	waabm-igo-o-yan	g-waabm-igo-o
	see-**INV(L)?**-X-2subj	2-see-INV(NL)-X
	'Someone (unspecified) sees you.'/'You am seen.' (Valentine 2001:295)	

What is important about the conjunct data in (59) is that the theme-sign suffix remains *-igo* despite the specification of the internal argument. Given the generalizations from the previous conjunct data, summarized by the object agreement in (58), some kind of object agreement would also be expected in (59). However, the spell-out of the conjunct theme-sign is sensitive to external arguments that are underspecified in some way, for example, external arguments that are obviatives or unspecified animate agents (part of the Unspecified Agent Construction, discussed in detail in Chapter 8.1).

Taking all the conjunct VTA theme-signs together, it still must be the case that the theme-sign morpheme registers the π-specifications of the internal and external arguments, just like it does in the independent order. If all the theme-signs in the conjunct were object agreement, like in (53), then it might be said that a π-probe on a conjunct *v* only Agrees with the internal argument or that these theme-signs are the spell-out of a different head than the theme-signs in the independent. But the pattern changes from internal argument agreement in (59): the conjunct theme-sign agrees with the internal argument unless the external argument is relatively underspecified (e.g. (59)), then agreement with the external blocks internal argument agreement.

I maintain that *v* bears a complex π-probe in the conjunct order that can Cyclically Agree with multiple argument goals, but that the spell-out rules differ between the conjunct and independent orders. Potential ordered Vocabulary Insertion rules are given in (60) that encode that the theme-sign slot in the VTA conjunct is agreement with the internal argument unless the external argument is underspecified to a certain extent, like a 3rd person obviative (e.g. (59)a). The features relevant for each theme-sign spell-out are not identical to those relevant for the independent order (see (22) in Chapter 2.3.3), but this difference is necessary given the disparate behaviour of morphology in the conjunct versus the independent.[47,48]

(60) Conjunct theme-sign Vocabulary Insertion:

Underspecified EA:	v_{conj} →/-igw/	/	[~~**uπ**~~]
3rd IA:	v_{conj} →/-aa/	/	[~~uπ~~3]
1st IA:	v_{conj} →/-i/	/	[~~uπ~~1]
2nd IA:	v_{conj} →/-in/	/	[~~uπ~~2]

The morphology of the conjunct order is notoriously messy, especially when contrasted with the much more regular morphological correspondences of the independent. Apart from the exact formulation of spell-out rules for the conjunct, my claim that the theme-signs are the spell-out of the complex core probe on *v* remains since even in the conjunct the theme-signs must be able to see the π-features of both the internal and external argument to get the correct form. The internal argument agreement found with the bulk of

[47] Given the spell-out rules I have so far suggested, the spell-out of /-igw/ (non-local inverse in the independent) refers to checked entailed features in both the conjunct and independent orders, suggesting a connection of this morpheme to "inverse" contexts.

[48] I posit that *v* is featurally marked for *conjunct* or *independent* (these types relate to C, but must also be available low in the structure – compare with subjunctive C in a French complement clause that is also realized lower in the form of the verb: *Je veux que tu le fasses* 'I want you to do it.') and that Vocabulary Insertion rules can be sensitive to [conjunct] or [independent] features. That is, the VTA theme-signs in (60) are inserted in the context of the conjunct (i.e. *v*[conjunct]) over the independent forms (see Chapter 2.3.3). The conjunct context is also important for other agreement slots, since the independent order uses person proclitics but the conjunct uses person suffixes.

the conjunct VTA theme-signs is easily derived with the checking system I employ since an internal argument always Agrees with *v* first and will never check an already entailed feature (a fact that is exploited in (60)). The conjunct agreement morphemes are difficult to describe in straightforward terms, but the theme-sign suffix in the conjunct is crucially the same syntactic object, *v*, that it is in the independent and across transitive and intransitive paradigms.

To complete the view of theme-sign suffixes across paradigms, I now briefly discuss transitive inanimate and inanimate intransitive theme-sign suffixes in the conjunct. I discussed the VTI and VAI independent theme-signs in section 3.1, and the conjunct theme-signs are identical and do not change their correspondence (unlike the VTA theme-signs). Some comparisons of the independent and conjunct theme-signs are given in (61) for a VTI with the theme-sign *–am* and (62) for a VAI with *-(i)wee* (see section 3.1.2). The same theme-signs are used in these paradigms in the independent and conjunct (full paradigms can be found in Valentine 2001:311-4, 232-7).

(61) a. n/g-waab-am-d-**am** *Independent*
1/2-see-TRANS-INAN-**VTI/VAI**
'I/You see it.'

b. waab-am-d-**am**-aanh/an *Conjunct*
see-TRANS-INAN-**VTI/VAI**-1/2
'I/You see it.' (Valentine 2001:311,313)

(62) a. n/g-bood-wee *Independent*
1/2-make.fire-VTI/VAI
'I/You make a fire.'

b. bood-wee-yaanh/yin *Conjunct*
'make.fire-VTI/VAI-1/2
'I/You make a fire.' (Valentine 2001:232,236)

The behaviour of the VTI/VAI theme-signs indicate that these forms do not have specific spell-out rules relativized to the conjunct or independent, but instead have only one set of

rules. The following subsection discusses a complication of plural agreement for the ranking of the Participant Hierarchy.

3.2.2 A note on the 2>1 ranking

The Participant Hierarchy in (1) (e.g. 2>1>3) is commonly used in the description of the Inverse System in Ojibwe and other Algonquian languages (e.g. Menominee, Cree), and I have encoded it as an entailment relationships between π-features as represented by a feature geometry. It is clear from the data, and in fact from many cross-linguistic phenomena, that there is a division of SAP>3, where SAPs seem to be more salient and are realized more consistently in agreement paradigms. However, there is a debate surrounding rankings between 1st and 2nd person, and whether certain Algonquian languages really have a 2>1 relationship between SAPs. I posit that in Ojibwe, [Addressee] (2nd person) is the specified feature that entails [Participant] (denoting 1st person by contrastive underspecification), such that there is a general 2>1 ranking. The apparent 1>2 ranking does not relate to entailment between π-features but only to the morphological realization of plural suffixes.

Macaulay (2005, see also 2009) discusses data from Menominee (which also shows a version of the Inverse System, with cognate theme-signs contrasting direct/inverse and local/non-local) and compares it to agreement in other Algonquian languages to question the status of the apparent 2>1 ranking associated with the Inverse System. First, she argues that the proclitic hierarchy of 2>1>3 should not be inferred as the hierarchy for the theme-signs, which show SAP>3, but otherwise constitute object agreement in the independent and conjunct orders. Her generalization is illustrated in (63) for the Menominee suffixes *–en* corresponding to the Ojibwe local inverse *–in*, and *–e* corresponding to the Ojibwe local direct *–i* (McGinnis 1999 proposes the same functions of direct/inverse as object agreement for the Ojibwe conjunct).

(63) Local theme-signs for VTA verbs in Menominee (Macaulay 2005:10)

Form	TA Ind	TA Conj	Generalization
-en	1 > 2	1 > 2	[2] object
		3 > 2	
		3 > 1 PL INCL	
-e	2 > 1	2 > 1	[1] object
		3 > 1	

With the patterns for local theme-signs in (63), Macaulay (2005:10) essentially suggests that there are two different systems at work to give the theme-sign spell-out: (i) a core Inverse System relating to the non-local theme-signs, i.e. determining direct or inverse when there is at least one 3rd person argument, and (ii) object agreement, realized by the local theme-signs, for SAP arguments in the absence of a 3rd person. Applying this view to Ojibwe, this means the theme-sign *-aa* in (64)a indicates the direct relationship of the 2nd person external argument over the 3rd person internal argument, but the theme-sign *–i* in (64)b indicates a 1st person internal argument, but only when the external argument is also a Speech Act Participant.

(64) a. g-waabm-aa
2-see-DIR(NL)
'You see him.'

b. g-waabm-i
2-see-DIR(L)
'You see me.' (Valentine 2001:270)

It is tempting to utilize the simpler description of local theme-signs as object agreement, however, restating the Inverse System to further distinguish the local and non-local theme-signs does not get around the fact that the theme-sign suffix must know the π-features of both the internal and external arguments – SAP 'object agreement' suffixes are only inserted in the independent when the external argument is also an SAP, and if it is not, then the directionality relationship is triggered.

It is interesting to note that the table in (63), and parallel facts in (65) for Ojibwe, show the usage of Macaulay's (2005) 2nd person object agreement in the conjunct for

3>1(inclu) instead of the 1st person object agreement. Since 1st person inclusive arguments involve both a 1st and 2nd person feature [2, 1], it seems that the 2nd person feature wins out in terms of vocabulary insertion, lining up with the Person Hierarchy in (1) based on the behaviour of the person proclitics.

(65) waabm-**inin**-an-g *Conjunct*
see-INV(L)/2obj-1-1pl
'He/she sees us(inclu).'(Valentine 2001:295)

The usage of the descriptive Participant Hierarchy as 2>1>3 is complicated by the form of verbal plural suffixes, which insert 1st person plural markers over 2nd person plurals. The apparent reversed ranking of 1>2 in the plural suffix system is shown below for the Ojibwe independent order, and lining up with the agreement patterns Macaulay (2005) reports for Menominee.

(66) a. g-waabm-aa-**waa**
2-see-DIR(NL)-2pl
'You(pl) see him.'
b. n-waabm-aa-**min**
1-see-DIR(NL)-1pl
'We(excl) see him.'
c. g-waabm-i-**min**
2-see-DIR(L)-1pl
'You(sg/pl) see us(excl).'
d. g-waabm-aa-**min**
2-see-DIR(NL)-1pl
'We(inclu) see him.' (Valentine 2001:287)

(66)a shows the 2nd person plural suffix *–waa* found in the VTA independent only when 2nd person is in opposition with a 3rd person. (66)b shows the 1st plural suffix *–min*, used in some dialects, and it is this suffix that is inserted whenever there is a 1st person plural

in the clause. (66)c shows *-min* blocking *-waa*, making number ambiguous for a 2nd person argument against a 1st plural, and (66)d shows that for the 1st person inclusive, which involves both 1st and 2nd person features, it is the 1st person plural *-min* that is used, not the 2nd person plural suffix.

It is clear that the insertion of the SAP plural suffixes descriptively refers to a different ranking, where 1st person plural always outranks 2nd person plural. Macaulay (2005) concludes that although there is a 'universal' SAP>3 hierarchy in Algonquian, there can be local hierarchies for affix positions, 2>1 for the proclitic and 1>2 for the local plurals for most Algonquian languages.

I argue that the apparent reverse ranking (1>2) in the verbal SAP plural slot does not indicate a change in entailment relations between π-features in Ojibwe (discussed for (7) in Chapter 2.2), but that it is merely a morphological reflex. I posit that the verbal plural slot is subject to a different set of Vocabulary Insertion rules at the phonological interface that is sensitive to certain feature combinations, namely [1, plural] over [2, plural]. However, it is important to note that the Ojibwe data are better fit by a 2>1 ([Addressee] entails [Participant]) ranking given the behaviour of proclitics, theme-signs and the interaction of π-features with each other to the exclusion of number. The 1>2 descriptive ranking only occurs in the context of number features, and simply has different phonological exponents for different π-features, but these plural suffixes are primarily sensitive to number features.

After having considered finer details of the Ojibwe morphology surrounding the Inverse System, I will turn to more narrow syntactic consequences that have been associated with the direct and inverse.

3.3 Syntactic Effects of the Inverse System

The main goal of my account of the Ojibwe Inverse System is to derive the complex morphology of the theme-sign suffixes in the core Inverse System and across other, less discussed paradigms (reviewed in the previous sections). However recent work by Bruening (2001, 2005, 2009) focuses instead on the syntactic effects of the Inverse System based on data from Passamaquoddy, an Eastern Algonquian language. In this section I discuss Bruening's analysis that the inverse involves the syntactic inversion of

the internal and external arguments by A-movement and that this movement is evidenced by scope and variable binding in Passamaquoddy. I will argue that A-movement is not necessary to account for the Inverse System in Ojibwe, whose scope facts differ from Passamaquoddy and that the binding facts can be accounted for outside the Inverse System. An additional issue is that if we accept that there is A-inversion in Ojibwe or Passamaquoddy, this A-movement is not canonical or Case driven, and instead might relate to the kind of movement found with A-scrambling (see Saito 1992).[49]

Whether one assumes A-movement within the Inverse System or not, I maintain that my derivation of the theme-sign morphology is still required to characterize the range of theme-signs in the Inverse System and beyond. The spell-out of the theme-signs need not be derived directly from syntactic effects of the Inverse System, and I have argued that the theme-signs reflect cyclic agreement with arguments in their merge positions (i.e. before any movement, discussed in Chapter 2).

Here I give an overview of Bruening's (2005) proposal that shows the core elements of his A-movement account of the Inverse System (same concepts as in Bruening 2001:118-120 and 2009:431).[50] Bruening states that the Infl or T head of a phrase has an EPP feature requiring the movement of a DP to its specifier. The direct involves a structure like (67)a, where the external argument checks the EPP feature and fills the spec InflP/TP position, maintaining a normal structure with the external argument c-commanding the internal argument. Conversely, the inverse in (67)b begins with the same merge positions, but a special EPP feature on Voice raises the internal argument over the external argument.[51] When Infl/T merges, the closest DP is instead the

[49] I argue that Ojibwe, and presumably Algonquian, lacks Case and shows no standard Case driven A-movement, discussed in Chapter 5 (see also Ritter & Rosen 2005).

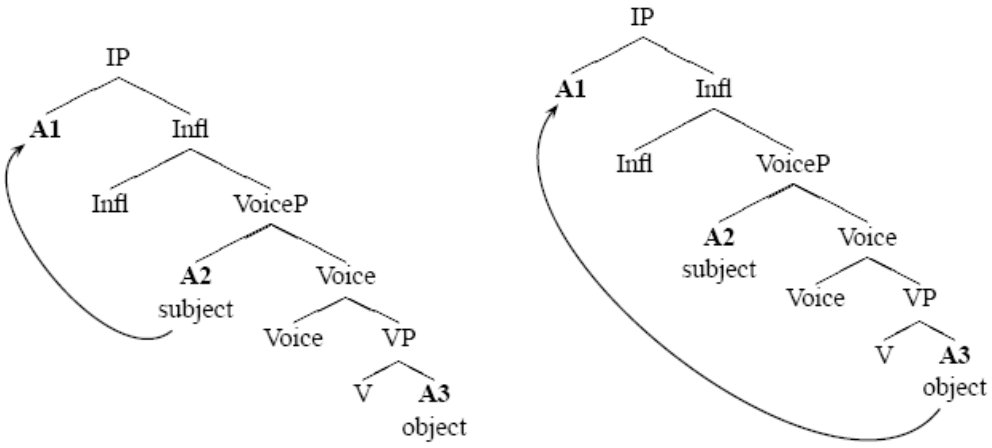
[50] Note that although I am discussing three versions of Bruening's analysis, they are at heart the same view of the Inverse System and I have been careful to note when certain details are particular to one version. I do not choose to discuss only one version since Bruening (2005) deals mostly with the binding data, Bruening (2008) with the scope data and the Bruening (2001) version lacks some important data from the subsequent versions.

[51] Although not indicated in the tree in (67)b, there are two movements of the object: (i) to spec VoiceP, (ii) to spec IP/TP.

underlying internal argument, and that argument now moves to spec InflP/TP and the A-positions of the two arguments are syntactically inverted.

(67) a. Direct (EA>IA) b. Inverse (IA>EA via A-mv't)

(Bruening 2005:18)



The details in Bruening (2001, 2009) may differ slightly from the version presented above, but all versions appeal to the same notion that the internal argument can move over the external argument and c-command it in the inverse voice, but not in the direct.[52]

The following subsections go through the evidence for A-movement given by Bruening (2001, 2005, 2009). Section 3.3.1 considers scope, which is rigid in the direct and ambiguous in the inverse in Passamaquoddy, but is ambiguous in both the direct and inverse in Ojibwe. In section 3.3.2 I discuss variable binding, which exhibits consistent behaviour across Ojibwe and Passamaquoddy, where quantifiers associated with internal arguments in the inverse can specially bind into external arguments. In section 3.3.3 I offer an alternative view of binding in Ojibwe that appeals to binding controlled by higher *v*P external elements (akin to clitic doubling in Spanish and Modern Greek, Hornstein 1995) and does not require A-movement.

[52] Bruening's (2001, 2005, 2009) central goal is to account for the syntactic effects of the Inverse System, however I mention his view on the spell-out of the theme-sign suffixes in section 3.3.4.

3.3.1 Scope in the Inverse System

Bruening (2001, 2009) claims that the behaviour of quantifier scope in direct and inverse constructions supports his A-movement analysis of Passamaquoddy, illustrated in (67). Bruening proposes that Passamaquoddy scope is derived from A-positions, obtaining rigid scope in the direct, but both surface and inverse scope in the inverse. I show that scope is not restricted in Ojibwe direct constructions like it is in Passamaquoddy and that Ojibwe does not calculate its scope from overt A-positions.

Consider the direct constructions in (68) for Passamaquoddy, where only surface scope is possible and inverse scope is unavailable.[53] For example, in (68)a the only possible reading is that there is only one man who is holding every bottle, and not that there is a man for each bottle (e.g. *'For each bottle, a man is holding it.').

(68) a. Skitap psite '-sakolon-à puhtayà. (Passamaquoddy)
man all 3-hold.onto-DIR.OBVP bottle.OBVP
'A man is holding all the bottles.' (only one man total: ∃>∀, *∀>∃)

b. Pesq putep psite 't-askikom-à nomehsù.
one whale all 3-bite.clamp-DIR.OBVP fish.OBVP
'One whale is biting all the fish.' (only one whale total: ∃>∀, *∀>∃)
(Bruening 2009:434)

In contrast to the direct, inverse constructions can have inverse as well as surface scope, shown in (69). This example can have the surface scope reading that there is only one man holding all the bottles, or the inverse scope reading that there is a man for each bottle.

[53] Bruening departs from traditional classification where DIRECT and INVERSE are aspects of the transitive animate (VTA) paradigm, and not recognized in other paradigms (which generally lack the relevant morpheme correspondences). Bruening uses DIRECT/INVERSE classifications across paradigms, for example, where a direct clause can be one with an animate external argument and inanimate internal argument (part of the transitive inanimate/VTI paradigm). Bruening posits that such VTI constructions are "syntactically direct" and are representative of the behaviour of direct constructions. My view of VTI theme-signs is given in section 3.1.1.

(69) Psite puhtaya-k '-sakolon-oku-wa-l peskuw-ol skitapi-yil. (Passamaquoddy)
all bottle-3P 3-hold-INV-3P-OBV one-OBV man-OBV
'One man is holding all the bottles.'
(distributive, several men each holding one, or non-distributive, one man holding all: ∃>∀, ∀>∃)
(Bruening 2009:434)

Bruening (2001, 2009) proposes that in Passamaquoddy, scope is calculated from A-positions, as in (70), and that an operation such as Quantifier Raising (May 1985) cannot adjust scope relations at LF.

(70) **The Argument Scope Constraint**:
If, in the input to LF, A is an A-position that c-commands B, B in an A-position, B may not cross A by LF movement. (Bruening 2009:437)

There is no overt A-movement available in the direct that causes the internal argument to c-command the external argument, and an external over internal argument structure is constant in the direct, as in (67)a. Then, because of (70), strict surface scope is always obtained in the direct. In the case of the inverse, scope is ambiguous between surface and inverse scope, unlike the direct. Bruening (2009) derives the inverse scope ambiguity by allowing two different inputs to LF from the overt syntax. One input involves the overt movement of the internal argument to spec InflP/TP to satisfy the EPP feature (internal>external, (67)b) and gives inverse scope (corresponding to the inverted A-positions of the arguments). The other input to LF for an inverse construction involves the satisfaction of the EPP feature without movement (e.g. by Agree) so the internal argument remains in its merge position (external>internal) in the syntax.

Turning to scope in Ojibwe, the scope facts do not support an extension of Bruening's (2009) scope from A-positions proposal to Ojibwe. The direct, like the inverse, can give either surface or inverted scope readings in Ojibwe seen in (71), showing no distinction between direct and inverse in this respect. For example, (71)a can

have the surface scope reading that a single man is looking after all the children, or the inverse scope reading that for each child there is one man looking after that child.

(71) a. nine gii-kinowenm-aa-n kina binoejii-un (Ojibwe)
man PST-look.after-DIR-OBV every child-OBV
'A man looked after every child.' ∃>∀, ∀>∃

b. gimaa gii-kowend-an kina shkogen(-ing)
chief PST-look.after-VTI every reserve(-LOC)
'A chief looked after every reserve.' ∃>∀, ∀>∃

c.[54] kina gwiozens bamwidonun naagnun
every boy carry.VTI plates
'A boy is carrying every plate.' ∃>∀, ∀>∃
(Berdina Johnson & Ella Waukey 16-7/12/08, 15/06/09)

It may be the case that while Passamaquoddy adheres to the Argument Scope Constraint in (70) and does not allow the LF adjustment of scope, Ojibwe is not subject to the constraint. Whatever movement may occur overtly in Ojibwe can be adjusted by LF movement, like Quantifier Raising as per May (1985). A-movement in the Ojibwe Inverse System is not supported by the scope facts as it is in Passamaquoddy. The variable binding data discussed next, however, does not show such a distinction between the two languages.

3.3.2 Variable binding in Ojibwe and Passamaquoddy

Bruening (2001, 2005) discusses variable binding data from Passamaquoddy and claims that these data are also derived by A-movement in inverse constructions. Across Algonquian languages (including Ojibwe) variable and possessor binding has been claimed to show a direct versus inverse asymmetry (e.g. Rhodes 1992, 1993; Lin 2005, Bruening 2001, 2005). Direct contexts appear to only allow binding of the external

[54] *Kina* 'every' associates with *naagnun* 'plate' in (71)c, despite being dislocated and adjacent to another DP. Quantifier dislocation does not affect the possible scope, for example (71)a-b have *kina* post-verbally and this universal quantifier is not blocked from being interpreted high, with wide scope in these examples.

argument into the internal argument, and inverse contexts allow binding of the internal argument into the external argument. In this subsection I present the binding data in Passamaquoddy and Ojibwe and Bruening's A-movement account of these facts. In the following subsection I argue that binding should not be derived from the direct or inverse, and I present an alternative account that does not appeal to A-movement.

Consider the direct binding data in (72) for Passamaquoddy variables and in (73) for Ojibwe possessors.[55] The data in (72)a and (73)a show the ability of an external argument to bind into an internal argument, and (72)b and (73)b show that the internal argument cannot bind into the external argument.

(72) a. Yatte wen (')-nomiy-al [skitapiy-il nenuw-a-c-il] (Passamaquoddy)
each who 3-see-DIR-OBV man-OBV IC.knows-DIR-3conj-PARTOBV
'Each person$_1$ saw the man he$_1$ knows.'

b. [Skitap musqitaham-ac-il] '-koti-tqon-a-l psi=te wen-il
[man hate-3conj-part.OBV] 3-fut-arrest-DIR-OBV all=emph who-OBV
'A man that he$_{*1}$(prox) hates will arrest everyone$_1$(obv).'
(*'For everyone *x*, a man that *x* hates will arrest *x*.') (Bruening 2005:12-3)

(73) a. John w-gii-waabm-aa-n wgwisan
John 3-PST-see-DIR(NL)-OBV son.OBV
'John$_1$ saw his$_1$son.'

b. *Wgwisan w-gii-waabm-aa-n John-an
son 3-PST-see-DIR(NL)-OBV John-OBV
'His$_{*1}$ son saw John$_1$.' (Valentine 2001: 632-3)

[55] These variable binding facts generally hold for Algonquian languages (Lin 2005), and variable binding is also realized in Ojibwe as what Rhodes (1992) dubs the *Possessor Constraint*. The coindexation of a possessor and possessee appears to be a kind of variable binding and is subject to the same constraints. Exact parallels of the Passamaquoddy variable binding data is currently unavailable for Ojibwe, but the binding behaviour is well-known across Algonquian, discussed in Lin (2005).

Binding shows the opposite behaviour in the inverse context, shown in (74) for Passamaquoddy and (75) for Ojibwe. For (74) in Passamaquoddy the quantifier of the internal argument 'each girl' can bind the possessive pronoun in the external argument 'her mother.'[56] In Ojibwe in (75), the internal argument can bind into the external argument, but not vice versa shown in the impossible reading *'He$_1$ sees his$_1$ son$_2$.'[57,58]

(74) Yatte wen pilsqehsis '-kis-cem-ku-l w-ikuwoss-ol (Passamaquoddy)
each who girl 3-perf-kiss-INV-OBV 3-mother-OBV
'Her$_1$ mother(obv) kissed each girl$_1$(prox).'
('For each *x*, *x* a girl, *x*'s mother kissed her.') (Bruening 2005:13)

(75) w-waabm-igoo-n w-gwis-an
3-see-INV(NL)-OBV 3-son-OBV
'His$_1$ son$_2$ sees him$_1$'
*'He$_1$ sees his$_1$ son$_2$.' (Rhodes 1993:3)

The reverse binding facts are also found in wh-constructions, where Weak Crossover results in ungrammaticality in the direct but is acceptable in inverse constructions, shown in (76) for Ojibwe (Odawa dialect).

(76) Wenesh agashw-an e-jiismaabin-igoo-d (Odawa)
who mother-OBV past.conj-pinch-INV-OBV.conj
'Who$_{1/2}$(prox) did his$_1$ mother(obv) pinch?' (Christianson 2002:37)

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[56] Bruening (2001, 2005) does not indicate whether the external argument can still bind into the internal argument in the inverse in Passamaquoddy, but Ojibwe shows a ban against this (e.g. (75), recall possessor binding behaves as variable binding, fn. 55).

[57] Clear examples containing both scope and variable binding are unavailable, but could clarify the strength of the Argument Scope Constraint in (70). I leave the potential interaction of binding and scope for further research and data collection in Ojibwe.

[58] The impossible reading in (75) would have the following obviation: *'He$_1$(further obv) sees his$_1$ son$_2$(obv).' For the purposes of this discussion, it is equivalent to *'He$_1$(obv) sees his$_1$ son$_2$(prox),' but obviation restrictions on possession require further obviation (see Rhodes 1992).

Bruening (2001, 2005) claims that the behaviour of variable binding in Passamaquoddy is due to the A-movement he proposes within the Inverse System. The direct allows the external argument to bind into the internal argument, but the internal argument cannot bind into the external argument, reflective of the subject over object merge positions that remain unaltered (i.e. (67)a). On the other hand, the inverse can trigger the A-movement of the internal argument to a position c-commanding the external argument (i.e. (67)b), and allows binding of the internal argument into the external argument.

If Bruening's (2001, 2005, 2009) A-movement analysis is applied to Ojibwe to account for binding, then two caveats must be added. For one, A-movement still does not affect scope in Ojibwe as it does in Passamaquoddy, and Ojibwe is not subject to the Argument Scope Constraint in (70). For another, A-movement of the internal argument in the Ojibwe inverse would always have to be overt to account for data like (75) where an inverse external argument cannot bind into an internal argument. Such obligatory overt movement differs from Bruening's (2009) view of Passamaquoddy where the inverse can involve A-movement of the internal argument to a higher head, or can Agree in situ with that head to allow for flexible scope (discussed above in section 3.3.1). Although it is unknown from the current data whether Passamaquoddy inverse constructions also disallow binding of the external into the internal argument, Bruening's analysis predicts that variable binding of the internal into the external argument in the inverse can only allow inverse scope (i.e. because of overt A-movement of the internal argument), and disallow surface scope, given the constraint in (70).[59]

Next I propose an alternative view of the binding data in Ojibwe as an alternative to Bruening's (2001, 2005, 2009) A-movement approach. I argue that binding should not be analyzed as directly dependent on the Inverse System, but that binding is instead controlled by the syntax of the system of obviation that marks 3rd persons as proximate or obviative.[60]

[59] Data to test this prediction is unavailable, to my knowledge.

[60] Bruening (2001, 2005, 2009) analyzes obviation together with the Inverse System where animate 3rd persons are only counted as proximate, bearing some version of a [Proximate] feature, in opposition to another 3rd person.

3.3.3 Alternative view of variable binding: proximate vs. obviative

I offer an alternative account of the variable binding facts found in Ojibwe, and common across Algonquian languages (e.g. Lin 2005), that does not appeal to the A-movement of arguments proposed by Bruening (2001, 2005, 2009). I claim that it may be beneficial to avoid A-movement within the Ojibwe Inverse System since this language does not exhibit any canonical (i.e. Case driven) A-movement (discussed in Chapter 5), suggesting that A-movement of the Bruening type would be non-canonical in Ojibwe (i.e. of the A-scrambling type, Saito 1992). I analyze the Ojibwe binding facts as controlled by the system of obviation, which I consider to be distinct from the core Inverse System. I claim that the correct generalization of the binding facts does not refer to direct and inverse contexts, but rather that proximate 3rd persons can bind into obviatives and never vice versa. This generalization is restated in (77).[61]

(77) **Restriction on Ojibwe binding**: Proximates can bind into obviatives, but obviatives cannot bind into proximates.

I first review the system of obviation in Ojibwe, and second I present an analysis of obviation where proximates always c-command obviatives from *v*P external ProxP and ObvP projections, deriving (77).

Obviation (initially mentioned in example (4) in Chapter 2.1) marks disjoint reference between multiple 3rd person animate arguments, where one is considered "foregrounded" or *proximate*, and the other "backgrounded" or *obviative* (see full discussion in Grafstein 1984; Rhodes 1992; also Muehlbauer 2008 for Cree). (78)a has one proximate argument *John*, and one obviative *moozwan* 'moose(obv)' that is also indexed by the suffix *–an* on the verb. Although obviation is used to track 3rd person arguments in a discourse or narrative, I focus on the strict syntactic constraints of this system. One such restriction is that there can only be one proximate per clause, and any additional animate 3rd persons in a clause must be obviated in contrast to the proximate.

[61] I provide a one way generalization in (77) based on obviation, which I claim is simpler than the two part generalization utilized by Bruening (2001, 2005; see also Rhodes 1991, 1992) that refers to one type of behaviour in the direct (subject>object) and another in the inverse (object>subject).

This restriction is shown in (78)b where neither 3rd person animate argument is marked for obviation and the resulting construction is ungrammatical.

(78) a. John o-waabam-aa-an moozw-an
John 3-see-DIR(NL)-OBV moose-OBV
'John(prox) sees a moose(obv).'

b. * John o-waabam-aa moozw
John 3-see- DIR(NL) moose
'John(prox) sees a moose(prox).' (Grafstein 1984:34)

The system of obviation is obligatory for 3rd person animate DPs and does not show evidence of interacting with 1st or 2nd persons: (79) shows an SAP external argument (although argued to be proximate by Halle & Marantz 1993, among others) in contrast to a 3rd person animate internal argument, and no obviation is triggered. There is no equivalent of obviative morphology for 1st or 2nd person.

(79) g-/n-waabm-aa
2-/1-see-DIR(NL)
'You/I see him/her(prox).' (Valentine 2001:270)

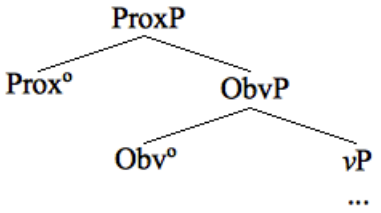
Obviation interacts with the Inverse System in that proximates outrank obviatives on the Participant Hierarchy (1) (effects seen in (4)), but I claim they are not the same system. Rather, obviation is obligatory licensing of 3rd person animate arguments indicating disjoint reference between multiple 3rd persons.

Now I present my proposal for the system of obviation in Ojibwe and how it can account for the behaviour of variable binding apart from A-movement posited by Bruening (2001, 2005, 2009). I propose that 3rd person animate arguments must Agree with a *v*P external head to get a proximate or obviative value, and that it is these *v*P external heads that control binding relations (akin to clitic doubling, Hornstein 1995).

I claim that animate 3rd person arguments in Ojibwe bear features like [uProximate] and [uObviative] that must check with a [Proximate] or [Obviative] feature that identifies

disjoint reference and relative foregrounding of arguments in a sentence or narrative.[62] DPs get a value via Agree with one of the *v*P external projections, ProxP or ObvP shown in (80), that assign [Proximate] and [Obviative] respectively.

(80) Obviation licensing field



I show that this view of obviation encompasses (i) the obligatory nature of obviation at the clause level, (ii) the one proximate per clause restriction (see (78)b), as well as (iii) the binding facts discussed in the previous subsection. For (i), all animate 3rd persons must undergo Agree to get a value from Prox or Obv, otherwise they remain unvalued for obviation and cause ungrammaticality, reflecting the obligatory nature of clausal obviation.[63] For (ii), because there is only one Prox (and one Obv) head in each clause, there can only be one Agree relation and therefore only one proximate per clause.[64]

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[62] Although I leave the exact details of these features for further research, it may be the π-features on animate 3rd persons that require a proximate or obviative value, for example, [3: Proximate] and [π: Obviative]. Tying obviation to π-features would then derive the proximate>obviate ranking described by the Participant Hierarchy in (1).

[63] I consider obviation in Ojibwe to be of a different nature from Person or Case Licensing (discussed in detail in Part Two), where obviation serves some function of referent chaining, and indicating relative discourse salience between 3rd person arguments. Obviation involves some optionality, where the speaker can choose the proximate or obviative marking of individual arguments (e.g. as characters in a narrative), while the licensing of arguments involves no such optionality (e.g. Case is determined by the structure, not chosen independently). The role of obviation outside Algonquian languages is investigated by Aissen (1997) for Tzotzil and Chamorro.

[64] A more detailed structure would also include a Further Obviative projection between ObvP and *v*P in (80), shown below in (i), which allows for multiple obviative arguments in a clause. Most Ojibwe dialects show no overt difference between obviative and further obviative, however Western Ojibwe (see Grafstein 1984) has different agreement markers for obviative and further obviative. I am claiming that there is not only one proximate per clause, but also only one true obviative per clause. Multiple obviative arguments in

For (iii), I propose that it is the Prox and Obv heads that control the binding relations of the DPs that Agree with them, and not the DPs themselves in their merge positions. Controlling binding from the *v*P external projections in (80) will derive the binding generalization in (77) since Prox always c-commands Obv, but Obv never c-commands Prox, allowing a proximate to bind into an obviative but not vice versa.

Following Ritter & Rosen (2005), the elimination of Weak Crossover in the Algonquian inverse is comparable to data discussed by Hornstein (1995) for Spanish and Modern Greek, where Weak Crossover can be avoided by the use of clitic doubling.[65] Hornstein argues for a *linking* approach to antecedence, following Higginbotham (1983, 1985), and Weak Crossover is a violation of the restriction in (81).

(81) A pronoun cannot be linked to a variable on its right: *Q…pronoun$_i$…vbl$_i$…
(Hornstein 1995:100)

The linking approach explains why Weak Crossover can be obviated by the addition of a clitic doubling a pronoun that is bound by a variable. Illustrated in Spanish, the doubling clitic *lo* 'him' in (82) is required as an element that the variable t_i and the pronoun *su* 'his'

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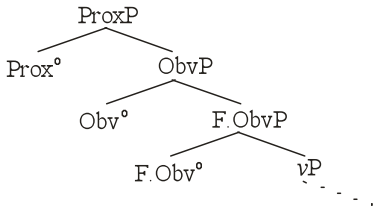
a clause will correspond to obviative and further obviative, although potentially these arguments will be encoded uniformly as obviative in the surface morphology.

(i) Extended obviation licensing field



[65] Ritter & Rosen (2005) propose a different account of the syntactic effects of the Algonquian Inverse System. They suggest a view of Algonquian binding formed around a Point of View (POV) projection as per Speas & Tenny (2003) that Agrees with the more proximate argument in a 3-on-3 clause (or with an SAP, if present). Bruening (2009) rejects the POV analysis because of the 'base generation' of the element high in POV, citing scope facts in the Passamaquoddy inverse which must allow for two A-positions for the internal argument since surface and inverted scope are both possible. I have shown that Passamaquoddy scope does not hold across Algonquian, but I also allow for an argument to relate to two different positions: merge position and an Agreeing Prox or Obv head outside the *v*P.

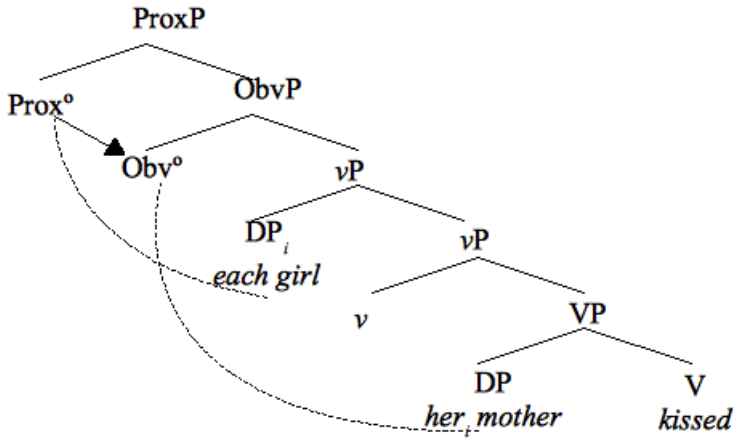
can independently link to. The addition of the clitic *lo* obviates the need of the pronoun *su* to link to the variable t_i on its right, which would violate (81) and induce a Weak Crossover effect.

(82) ¿A quien$_i$ *(lo$_i$) sorprende su$_i$ actitud t_i? (Spanish)
to whom him surprises his attitude
'Who does his attitude surprise?' (Hornstein 1995:104)

Taking the suggestion of Ritter & Rosen (2005), I consider the clitic doubling in (82) to be parallel to Ojibwe obviation, where the Prox or Obv head acts a doubling clitic of the argument it Agrees with. The clitic, or Prox/Obv head, is base generated higher in the structure and does not interact with Weak Crossover since there is no movement required for crossover (or no bound pronoun linking with a variable to its right, as per Hornstein 1995).

Consider the trees in (83) illustrating the constant proximate over obviative binding, regardless of the merge position of their coindexed arguments. Obviatives can never bind proximates because Obv never c-commands Prox.[66]

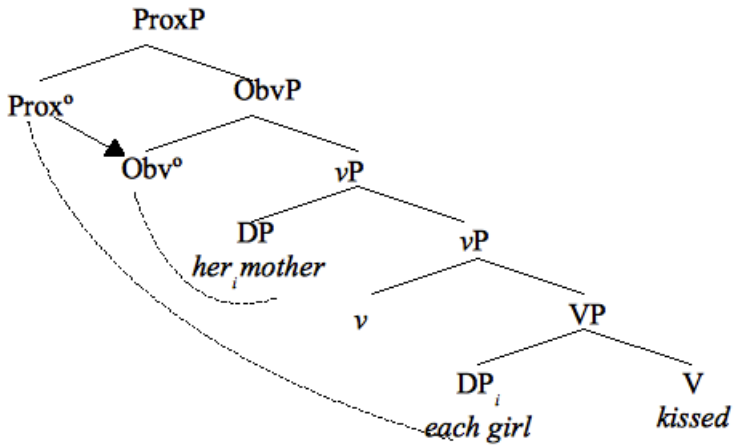
(83) a. *External binds into internal argument*:
'Each girl$_i$(prox) kissed(DIR) her$_i$ mother(obv).



[66] In (83) dotted lines indicate an Agree relation and solid arrow indicates a binding relationship by c-command.

b. *Internal binds into external argument*:

'Her$_i$ mother(obv) kissed(INV) each girl$_i$ (prox).'



The "clitic doubling" analysis of Ojibwe (and perhaps more broadly in Algonquian) variable binding contrasts with Bruening's (2001, 2005) A-movement approach since it relies on the base generation of a clitic like element that can take over binding for a coindexed argument. I suggest that my account is more appropriate when the Ojibwe data is considered, for one because Ojibwe scope data does not support the A-movement analysis Bruening (2001, 2009) develops for Passamaquoddy scope. Additionally, analyzing Ojibwe binding apart from A-movement falls in line with the general lack of canonical (i.e. Case driven) A-movement in Ojibwe and other Algonquian languages (see Ritter & Rosen 2005; Chapter 5). If we assume A-movement for the Ojibwe Inverse System as proposed by Bruening (2001, 2005, 2009), it stands as the only A-movement in the language, and would likely be non-canonical A-movement (like A-scrambling, Saito 1992) since there is no clear relation to movement for Case.[67]

[67] My view of the binding facts relates specifically to interactions between 3rd persons within the system of obviation, while Bruening (2001, 2005) argues that it is a feature of the Inverse System and therefore not limited to only 3rd persons. Data to differentiate between the two approaches might be found with fake indexicals, where 1st and 2nd person pronouns can have bound interpretations, illustrated in English in (i) (see Partee 1978; Rullmann 2004, Kratzer 2009).

Although Bruening's (2001, 2005, 2009) analysis of the Inverse System as derived by A-movement is convincing for the Passamaquoddy data, Ojibwe differs in terms of the behaviour of quantifier scope and does not show strong evidence for A-movement in its realization of the Inverse System.[68]

3.3.4 Section summary

The focus of Bruening's account is on the syntactic effects of the Inverse System, while mine is mainly concerned with deriving the complex morphology. Bruening (2001:122) proposes a kind of multiple Agree view of spelling-out the theme-signs but does not explain how his theme-sign is able to encode the features of two arguments, or how it records which π-features belong to the subject or object. The details of this suggestion are

---

(i) a. I'm the only one around here who can take care of *my* children.
Bound interpretation: 'Nobody else around here can take care of his or her own children.'
b. Only you eat what *you* cook.
Bound interpretation: 'Nobody else eats the food he or she cooks.'
(Kratzer 2009:188)

Fake indexicals are possible in Ojibwe, shown in the data collected from the Algonquin dialect in (ii), however further data collection and research is needed to determine how this binding might bear on the analysis of Algonquian binding.

(ii) a. nineta nind-ojiim-aa ni-jojo (Algonquin)
only 1-kiss-DIR(NL) 1-mother
(i) *Referential*: 'Only I kiss my mother.'
(ii) *Bound*: 'No one$_i$ else kisses their$_i$ mother.'
b. nineta ni-jojo nind-ojiim-ig
only 1-mother 1-kiss-INV(NL)
(i) *Referential*: 'Only my mother kisses me.'
(ii) *Bound*: 'No one$_i$ else's mother kisses them$_i$.'
'No one$_i$ else gets kissed by their mother.' / 'I'm the only one who gets kissed by my mother.' (P.D., A.S., J.T. April 30, 2012)

[68] Passamaquoddy scope might also be explained by my approach to binding in Ojibwe if scope can be calculated either between arguments in merge position or between Prox and Obv heads, but never between an argument in situ and Prox or Obv. This approach would derive rigid scope in the direct (external(prox)>internal(obv) or Prox>Obv) and flexible scope in the inverse (external(obv)>internal(prox) or Prox>Obv). However, this is a rough sketch and further research is needed to determine the viability of such an analysis of Passamaquoddy scope.

left out of Bruening's discussion. Also, this part of his analysis does not appear to be maintained in the later versions (2005, 2008). Bruening (2005) has a complex set of details that can determine the spell-out of the theme-sign suffixes based on the activation of the [EPP] feature that can trigger internal over external argument inversion, and he uses an extra [Proximate] feature on SAPs (and some proximate 3rd persons) for local theme-signs.[69]

My view of the theme-signs and the derivation of their spell-out is detailed in terms of the Cyclic Agree that underlies these suffixes (revised from Béjar & Rezac 2009) and treats them as person agreement (see Chapter 2.3). I consider my account of the morphology to be preferable because it relies on a single (but complex) mechanism of Cyclic Agree rather than a set of syntactic relations, and it easily accounts for theme-signs outside the Inverse System in Ojibwe, like the transitive inanimate and animate intransitive suffixes. I claim that the Passamaquoddy morphology, which reflects direct/inverse and local/non-local, may be covered by the same mechanics and manner of spell-out I have proposed for Ojibwe.

I have argued that the derivation of the Ojibwe Inverse System does not require A-movement, as Bruening (2001, 2005, 2009) maintains for Passamaquoddy. Ojibwe does not exhibit scope derived from A-positions, as Bruening has argued for Passamaquoddy. Further, the binding facts that are shared between Ojibwe and Passamaquoddy can also be accounted for under my "clitic doubling" approach (Hornstein 1995) and do not necessarily involve A-movement either.

3.4 Chapter Summary

In Chapter 3 I discussed Ojibwe data outside the core Inverse System to determine the predictions and effects that my realization of Cyclic Agree and spell-out have on the language. First, I proposed a solution to the mismatch between morphological and syntactic transitivity in animate intransitive (VAI) and transitive inanimate (VTI) verbs, maintaining that the theme-sign is π-agreement and positing that only inanimate

[69] I do not discuss the details of Passamaquoddy local and non-local theme-signs, but Bruening (2005, 2009) does not treat them as uniformly π-agreement with both clausal arguments, which I have argued is the correct characterization of theme-sign suffixes in Ojibwe.

arguments lack person features, therefore patterning with absent arguments with respect to π-agreement. The view of VAI theme-signs as spelling-out a single instance of π-checking with *v* (rather than two with transitive animate verbs) provides insight into the suffixes -*igee* and -*iwee* which have been considered kinds of detransitivizers, but I claim are actually VAI/VTI theme-signs.

I then discussed the appearance of theme-signs in the VTA conjunct order, which shares the theme-sign morphology of the independent but assigns a different correspondence with the π-features of the clause. An important property shared between the conjunct and independent is that the theme-signs in both are sensitive to the π-features of the internal and external arguments, and therefore both orders need the Cyclic Agreement of *v* with the clausal arguments.

Finally, I discussed Bruening (2001, 2005, 2009), who argues that Algonquian languages have A-movement as evidenced by the effects the Inverse System has on scope and variable binding in Passamaquoddy. I investigated the Ojibwe data, showing that not all the effects found in Passamaquoddy generalize across Algonquian, and I presented an alternative view of the data apart from Bruening's A-movement. It is important to note that the constructions where Bruening (2001, 2005, 2009) argues for A-movement in Algonquian are not the standard contexts for A-movement. Standard A-movement or A-positions of the kind found in Passives,[70] Raising constructions and (arguably) reflexives appear to be absent in Algonquian languages (Ritter & Rosen 2005). The question remains as to whether Algonquian languages should be analyzed as using A-movement, given that the Inverse System in a language like Ojibwe can be fairly easily accounted for apart from any kind of A-movement. Bruening's A-movement analysis of the Inverse System in Passamaquoddy remains, however, compelling in its coverage of both the scope and variable binding in that particular language. The question of movement and the Inverse System will reappear in Chapter 4.2 in the discussion of Anagnostopoulou (2005) and Bianchi (2006), who similarly propose movement accounts of the Inverse System in Passamaquoddy and Cree respectively.

[70] Recall that the inverse is fully transitive and not itself a standard passive construction (contra Rhodes 1991 for Ojibwe, Wolfart 1991 for Cree). The discussion of the Unspecified Agent Construction, which appears to be closer to a passive (i.e. in the demotion of the Agent), is discussed in Chapter 8.

The next Chapter moves beyond the transitive and intransitive constructions in Ojibwe to ditransitives. Ojibwe ditransitives are always realized by the Double Object Construction and show the Strong Person-Case Constraint (Bonet 1991, 1994), which restricts the lowest internal argument in a ditransitive to 3rd person. I offer an account of the Person-Case Constraint in Ojibwe by extending Cyclic Agree of the π-probe on *v*. In comparison with other accounts of the Person-Case Constraint based on other languages (e.g. Romance languages), I argue for the details of my Cyclic Agree approach and that this view of the Person-Case Constraint better connects it to the workings of the Inverse System.

Chapter 4 Ojibwe Ditransitives

I have been arguing for an account of the Ojibwe theme-sign morphology that unifies the treatment of suffixes in the core Inverse System (with transitive animate verbs, Chapter 2) and in other paradigms (i.e. transitive inanimate and animate intransitive verbs, Chapter 3). Now I investigate the morphology and restrictions found with ditransitive verbs in Ojibwe to show how Cyclic Agree extends to these constructions as well. Ditransitive constructions in Ojibwe are always realized by the Double Object Construction, with two DP internal arguments, and often use the theme-signs associated with the monotransitives of the core Inverse System (listed in (5) in Chapter 2.1). The theme-sign can only encode the π-features of two arguments, and the third argument in a ditransitive is left unencoded. Hence, I posit that the Cyclic Agree of *v* is strictly local and only adjacent arguments are visible to its π-probe. The strict locality of π-checking not only derives the transitive animate theme-signs in ditransitives, but also extends to the Person Restrictions found in Ojibwe ditransitives that are shared with other languages as well.

This Chapter introduces ditransitives within the transitive animate paradigm in Ojibwe, and I show that the use of direct and inverse theme-signs is derived by Cyclic Agree, agreeing with the π-features of the external argument and highest internal argument. Further, ditransitives in this language are subject to the Strong Person-Case Constraint, which restricts the lowest internal argument to 3rd person specifications only, and directly connects to other languages that also exhibit the Person-Case Constraint (e.g. French, Italian, Greek). I provide an account of the Person-Case Constraint in Ojibwe by extending Cyclic Agree, which I have argued derives the complex π-agreement that spells-out the theme-sign suffixes, and that this kind of Agree is strictly local because of a sensitivity to Defective Intervention. I assume, alongside other accounts of the Person-Case Constraint, that some languages require π-features be licensed in the syntax by entering an Agree relation, and Person Restrictions arise when certain π-features, like 1st and 2nd person, remain unlicensed.

I also look at other attempts to tie together the Inverse System in certain Algonquian languages (i.e. Passamaquoddy and Plains Cree) and the Person-Case

Constraint, in particular Anagnostopoulou (2005) and Bianchi (2006). Although these previous accounts provide good coverage of the Person Restrictions and the syntactic aspects of the Inverse System as discussed by Bruening (2001), I argue that they cannot provide the same coverage of the theme-sign morphology. I suggest that the complex theme-sign morphology, which I claim is Person agreement, should not necessarily be derived from features triggering syntactic inversion, as in the proposals of Bruening (2001) and Anagnostopoulou (2005). Instead, I claim that the Person Licensing of Ojibwe arguments in situ may provide a cleaner view of the relationship between the Inverse System and the Person-Case Constraint in Ojibwe, as well as in other languages. The work done by Cyclic Agree with a complex π-probe on *v* allows for the full set of theme-signs to be derived (even outside the core Inverse System) as well as the Person Restrictions found in Ojibwe ditransitives. Part Two will take a closer look at Person Restrictions cross-linguistically and how these all share common underlying structure and can relate to the licensing of π-features with little *v*.

This Chapter is organized as follows. Section 4.1 introduces the interaction of π-agreement with arguments in Ojibwe ditransitives and identifies the Person-Case Constraint in this language. Section 4.2 presents my analysis of the Person-Case Constraint in Ojibwe as an extension of Cyclic Agree and compares my approach to other syntactic views of the Person-Case Constraint. Section 4.3 concludes the Chapter.

4.1 Person Agreement and Restrictions in Ojibwe Ditransitives

In this section, I introduce some properties of Ojibwe ditransitives, in particular, how their theme-signs are derived and what the restrictions on the π-features of the lower internal argument/Theme are. I claim that the theme-signs in the ditransitives below reflect agreement with the highest internal argument/Goal and the external argument, but never with the lowest/Theme argument. Further, the lowest internal argument is not only unable to Agree with *v* and spell-out on the theme-sign, but it is also banned from bearing highly specified π-features, such as [1] or [2]. I identify this restriction in Ojibwe as the Strong Person-Case Constraint (Bonet 1991, 1994), well known in many unrelated languages.

Ditransitives in Ojibwe take the Double Object Construction where both internal

arguments are DPs (seen in the derivation in (86)), and there is no Dative or prepositional alternative to these constructions.[71] The theme-sign suffix reflects the relationship between the π-features of the external argument and the internal argument that is highest in the structure, namely the Goal or indirect object. The π-features of the Theme, or direct object, are not encoded on the theme-sign.[72] For example, (84)a uses the non-local direct theme-sign because there is a 1st person external argument outranking the 3rd person Goal 'Mary', and (84)b uses the non-local inverse since the external argument bears less specified 3rd person features, and the Goal internal argument is the more specified 1st person (see Chapter 2.1 on the transitive animate theme-signs).[73]

(84) a. ne-gii-miin-aa Mani mzinegen
1-PST-give-DIR(NL) Mary book
'I gave a book to Mary.' (Anonymous consultant, 19/04/07)

b. emkwaanes n-gii-miin-ig
spoon 1-pst-give-INV(NL)
'He gave a spoon to me.' (Philomene Chegahno, 20/04/07)

The data in (85) more clearly shows that the theme-sign is only concerned with the external argument and Goal in a ditransitive, and that the Theme is not involved in the theme-sign morphology. (85)a contains a 2nd person external argument and a 1st person Goal, which spells-out the local direct theme-sign. The 3rd person Theme *emkwaanes* 'spoon' is not encoded on the theme-sign, since that would trigger the non-local form, but the ditransitive theme-sign only considers the π-features of the external argument and the highest internal argument. Similarly for (85)b, the local inverse is spelled-out, which encodes the relationship between the external argument and Goal only. Local theme-signs

[71] The translations for ditransitives in this section use the English Dative prepositional phrase construction, e.g. 'Anna gave a flower to Finnan.' The Ojibwe forms are all Double Object Constructions and the English translations are meant to make the thematic roles of the internal argument clearer: the higher Goal/Source argument is within the prepositional phrase, the lower Theme is a DP in the English translations.

[72] In general I will use the term *Goal* to refer to the highest internal argument in a ditransitive and *Theme* to refer to the lowest internal argument.

[73] I will not discuss the formation of the ditransitive stem here.

are inserted when the external argument and Goal (highest internal argument) are both SAPs, and do not take into account that the remaining Theme argument is 3rd person.

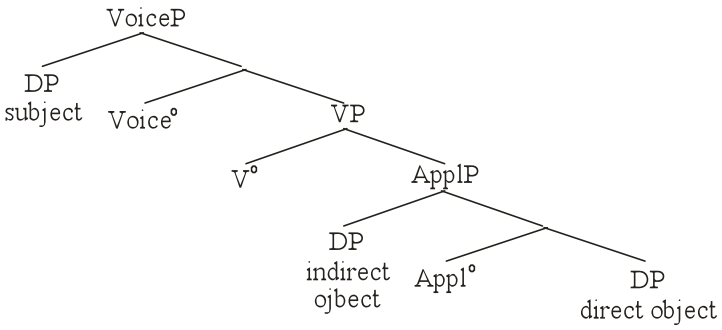
(85) a. gi-gii-miin-i emkwaanes
2-PST-give-DIR(L) spoon
'You gave a spoon to me.'
b. gi-gii-miin-in emkwaanes
2-PST-give-INV(L) spoon
'I gave a spoon to you.' (Philomene Chegahno, 20/04/07)

I propose that the Theme is not encoded in the theme-sign because it is blocked from Agree with *v* by the higher Goal, and I claim the π-probe cannot Agree across an intervening DP due to Defective Intervention (Chomsky 2000, discussed below in section 4.2.1). Only the external argument and Goal are local to *v* and therefore are the only arguments that can Agree with it.

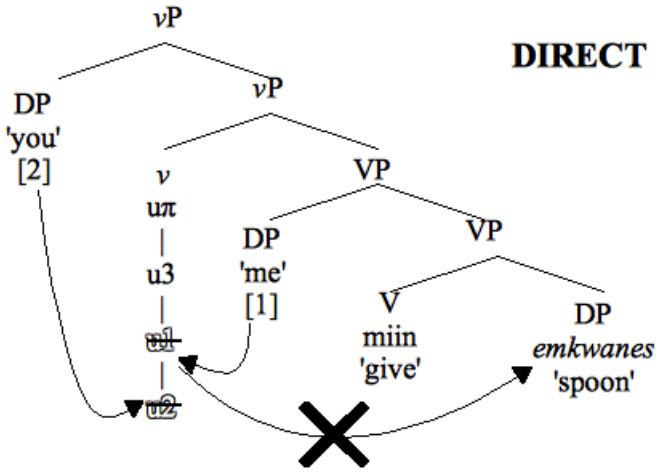
The assumed structure of the Ojibwe ditransitives is shown in (86) with a 2nd person external argument and 1st person Goal, resulting in a direct Local theme-sign. Again, the 3rd person Theme *emkwaanes* 'spoon' cannot Agree with *v* since it is blocked from *v* by the 1st person Goal argument.[74]

[74] My ditransitive structures assume the work of Pylkkänen (2002) and Cuervo (2003), where (86) can be understood as a simplified representation of a Low Applicative in (i). The addition of Applicative structure will not affect my discussion of ditransitives or cause any other intervention or locality effects. The intervention I discuss is concerned with the placement of DPs with respect to one another and not other syntactic elements.

(i) Low Applicative (Cuervo 2003:21)



(86) gi-gii-miin-i emkwaanes
2-PST-give-**DIR(L)** spoon
'You gave a spoon to me.'


DIRECT
vP
DP
'you'
[2]
vP
v
uπ
u3
uI
uI
uI

The predictions of this Person Agree intervention between the internal arguments are borne out in the data where the lower internal argument in a ditransitive can only be a less specified 3rd person (e.g. (84)-(85)). If the Theme is a highly specified 1st or 2nd person the construction becomes ungrammatical, illustrated in (87), because the π-features on these Themes cannot be licensed by Agree with *v*.

(87) a. * ni-gii-miin-aa giin (Ojibwe)
1-PST-give- DIR(NL) you
'I gave you to him/her.'

b. * gi-gii-miin-aa niin
2-PST-give- DIR(NL) me
'You gave me to him/her.'

I classify the data in (87) as instances of the Strong Person-Case Constraint (PCC).[75] The PCC is found across many language families, described by Bonet (1994) in terms of Case marking in (88)(i), and restated in (ii) in more general terms.

(88) (i) **Strong Person-Case Constraint**:
If DAT then ACC-3rd. (Bonet 1994:36)

(ii) **Strong Person-Case Constraint** (*Revised)*:
The direct object (Theme) must be 3rd person in the presence of a DP indirect object (Goal).

The Person-Case Constraint is well known in the Romance languages, and is found in different forms in Chinook, Tagalog, Kiowa and Greek, among others. The Strong PCC is shown in (89) for French (also known as the *me-lui* constraint), disallowing a 1st person

[75] Rhodes (1990) hints at this Person restriction, providing the following data in the conjunct order where 1st and 2nd person cannot be the lower 'secondary object', shown in (i). However, he does not connect this Person Restriction with the Person-Case Constraint seen in other languages.

(i) Mii go naa *gii/*nii/ˇniwi gaa-wih-aa-d g-ookmis
EMPH EMPH EMPH you/me/him wh.PST-lend-3-3subj 2-grandmother
'Your grandmother loaned *you/*me/ˇhim to her.' (Rhodes 1990:409)

accusative Theme under a dative Goal, and in (90) for Greek, disallowing a 2nd person accusative under a dative.

(89) a. Agnès me la présentera (French)
Agnès 1.DAT 3sg.fem.ACC present.FUT.3sg
'Agnès will introduce her to me.'

b. *Agnès me lui présentera
Agnès 1.ACC 2sg.DAT present.FUT.3sg
'Agnès will introduce me to her.' (Haspelmath 2002:2)

(90) a. Tha su ton stilune (Greek)
FUT 2sg.GEN 3sg.masc.ACC send.3pl
'They will send him to you.'

b. *Tha tu se stilune
FUT 3sg.masc.GEN 2sg.masc.ACC send.3pl
'They will send you to him.' (Anagnostopoulou 2005:4)

In section 4.2 I lay out my analysis of the Strong Person-Case constraint in Ojibwe as derived by the same Cyclic Agree mechanism that derives the theme-sign suffixes. I claim that the π-probe on *v* is subject to strict locality constraints due to Defective Intervention (i.e. Chomsky 2000), and to the requirement that π-features be licensed in the syntax in Ojibwe. I argue for this analysis based on the Ojibwe data, however I will also claim that the Strong PCC in languages like French and Greek may also be accounted for under the Cyclic Agree approach, connecting Ojibwe to unrelated languages that show similar Person Restrictions. My analysis diverges from other similar accounts of the PCC that assume once the Goal has agreed in person with a phi-probe, the lower Theme can then agree with the remaining number features on that phi-probe (e.g. Anagnostopoulou 2003, 2005; Béjar & Rezac 2003).

4.2 The Person-Case Constraint as an Extension of Cyclic Agree

This section presents an analysis of the Person-Case Constraint in Ojibwe as an extension of Cyclic Agree used to derive the theme-sign suffixes found across verbal paradigms. I argue that the Inverse System and Person-Case Constraint are directly connected by the agreement of multiple clausal arguments with a complex π-probe and the requirement that π-features be syntactically licensed. I compare my account of the Person-Case Constraint with a similar account by Anagnostopoulou (2005), adopting the notion that the PCC is syntactic, but employing different mechanics that I claim better account for the Ojibwe data and the connection between the Inverse System and the PCC.

In section 4.2.1, I will first lay out the analysis sketched in (86), whereby the PCC effects in Ojibwe can be covered by Cyclic Agree with *v* and intervention effects between internal arguments. In section 4.2.2, I discuss the analysis of the PCC in Anagnostopoulou (2005) and the distinctions between her view and my own. In section 4.2.3, I look at Anagnostopoulou (2005) and Bianchi (2006) who extend their movement analyses of the PCC to the Inverse System in Algonquian and I suggest that these approaches cannot properly deal with the full set of theme-sign morphology in Ojibwe.

4.2.1 PCC as Cyclic Agree and Defective Intervention

I claim that the Strong PCC in Ojibwe is accounted for by the kind of Cyclic Agree I employ alongside the independent requirements that (i) Person features be licensed in the syntax, and (ii) Person Agree be sensitive to Defective Intervention. My approach is conceptually similar to accounts of the PCC like Anagnostopoulou (2003, 2005), Béjar & Rezac (2003) and Heck & Richards (2010), among others, in that it involves multiple goals checking features with a single probe. However, extending the use of Cyclic Agree from the realization of the theme-sign suffixes to deriving Person Restrictions involves distinct details from previous accounts (discussed below). I claim that Person is not simply part of a phi-probe that can also house number, but that Person is an independent probe, and further that it is subject to Defective Intervention, meaning *v* cannot probe past a DP in its complement that it has Agreed with.

First, I assume that the realization of Person Restrictions is due the need of π-features to be licensed in the syntax in certain languages. Person Licensing is the topic of

Part Two, but I introduce it here claiming that a language like Ojibwe requires specified π-features to enter an Agree relation in the syntactic derivation to be licensed. The Person Licensing requirement is formulated in (91) and is descriptively equivalent to Béjar & Rezac's (2009) Person Licensing Condition (26) in Chapter 2.4.1. The licensing of Person features is not a novel concept and has been used in many forms throughout the literature on Person Restrictions (e.g. Nichols 2001; Ormazabal & Romero 2002; Béjar & Rezac 2003; Bianchi 2006).[76]

(91) **Person Licensing**: A DP bearing a π-feature, [β], must enter into an Agree relation with a head bearing an unvalued feature [uβ].

Person Licensing means that if there is a specified π-feature on a DP that cannot enter an Agree relation with an appropriate probe to license that π-feature, the construction will be ungrammatical. Since little *v* bears a complex π-probe it acts as a Person licensor and π-features on DPs can Agree with *v* to become licensed. The Strong PCC is realized when an argument bearing specified π-features cannot be properly Person Licensed. The PCC is typically found with ditransitives in the Double Object Construction and places a restriction on the π-specification of the lower internal argument (Theme/direct object). I attribute the PCC to the configuration of the Double Object Construction because the presence of a DP Goal can block the Person Licensing of the Theme argument, thereby restricting it to impoverished 3rd person.

The second component needed for my analysis of the PCC in Ojibwe is the sensitivity of Person Agree to Defective Intervention, given in (92). (92) states that a certain probe, α, cannot Agree with a matching goal, γ, across another matching goal, β, (i.e. the configuration α > β > γ) even if β has already been checked, and hence deactivated as a goal for Agree with α. In the context of Agree and Defective Intervention, an active goal is one which can potentially Agree with a probe, and that goal

[76] Person Licensing in (91) adds the requirement that interpretable π-features be licensed. Uninterpretable features (e.g. [uβ]) already have some requirement to be deleted (Chomsky 1995) or invoke an Agree relation (Preminger 2011).

becomes inactive after Agree with the probe has occurred (i.e. it may be invisible for further Agree relations with that goal).

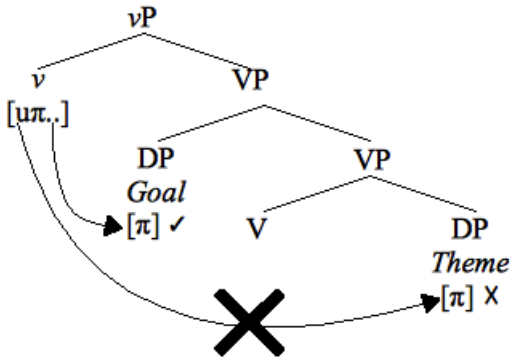
(92) **Defective Intervention constraint**: For α > β > γ (where > is c-command), β and γ match the probe α, but β is inactive (i.e. from previous Agree) so that the effects of matching (with γ) are blocked.
(Adapted from Chomsky 2000:123)

If a particular Agree relation is not sensitive to Defective Intervention, then Agree of the probe α with the matching goal β renders β inactive, and therefore invisible for further probing. After β becomes inactive, α can continue to probe down and Agree with a distinct matching goal γ.

I claim that Person Agree, specifically in Ojibwe but potentially more widely in Strong PCC languages, is subject to Defective Intervention. This means that in a Double Object Construction, the complex π-probe on *v* can Agree with the highest internal argument in its complement, but cannot probe past that goal to Agree with a lower internal argument.

Using Person Licensing and Defective Intervention, Cyclic Agree can be extended from accounting for the Inverse System morphology to the occurrence of the Strong PCC in Ojibwe. My account is illustrated in (93), where *v* bears a complex π-probe (abbreviated as [uπ...]) that probes down and finds a matching feature on the Goal (the highest internal argument), and Person licenses the Goal by that Agree relation. However, given Defective Intervention in (92), *v* cannot probe past the Goal to Agree with the matching feature on the Theme (the lower internal argument) and the [π] feature on the Theme does not enter an Agree relation and remains unlicensed. Because the Theme is not properly Person Licensed, (91) is violated and a construction with specified π-features (i.e. [1] or [2]) on the Theme is ungrammatical.

(93) Strong PCC in Ojibwe



The Cyclic Agree approach to the PCC allows for both an internal and external argument to Agree with the complex π-probe on *v* (already required to derive the Ojibwe theme-signs) but disallows a third argument from Agreeing. The probing of *v* allows for multiple goals, but these goals must be strictly local – in a sense adjacent to the probe. The ungrammaticality of the constructions in (87) can now be derived by Cyclic Agree of the complex π-probe on *v*. Consider (87)a, repeated in (94).

(94) *ni-gii-miin-aa giin
1-PST-give- DIR(NL) you
'I gave you to him/her.'

For a construction like (94), little *v* merges into a structure like (93), where there are two DPs in the complement of *v* that are potential goals for the π-probe. The higher Goal is 3rd person 'him/her', and the lower Theme is 2nd person *giin* 'you'. *v* probes down, looking for an element to match one of the features on its probe (i.e. [uπ u3 u1 u2], seen in (86)) and first Agrees with [3] on the Goal. The [u2] feature is still unchecked on *v* and could match the feature [2] on the lower 2nd person Theme argument. However, no Agree relation results from the match of [u2] and [2] because the Theme is not visible to *v* since the Goal is intervening (by Defective Intervention (92)). Therefore, *v* does not enter an Agree relation with the Theme (as in (93)) and the [2] feature on that lower internal argument remains unlicensed, violating Person Licensing in (91) and rendering the construction ungrammatical.

At this point, an important question arises about the grammaticality of animate 3rd person Themes in ditransitive clauses. I am claiming both that π-features must be syntactically licensed and that animate 3rd persons bear (less specific) π-features in contrast to inanimates that are void of π-features. The formulation of the Person-Case Constraint in (88)(ii) restricts Themes to 3rd persons in general, not just to inanimates. In fact, 3rd person animate Themes are fully acceptable, shown with the animate Theme 'her' in (95).

(95) Mii go naa niwi gaa-wih-aa-d g-ookmis
EMPH EMPH EMPH him wh.PST-try-DIR(NL)-3conj 2-grandmother
'Your grandmother loaned him to her.' (Rhodes 1990:409)

The question is, why are animate 3rd persons possible in Theme position, while 1st and 2nd persons are not, even though both have π-features to be Person Licensed? I maintain that Ojibwe is subject to Person Licensing in (91), but that 3rd persons, which are cross-linguistically less restricted than SAPs, are more easily licensed than 1st and 2nd person. There are two immediate possibilities: (i) There is an impoverished π-probe (e.g. on V or Appl, see fn. 74) that can Agree only with 3rd person Themes in a Double Object Construction, or (ii) Person Licensing (but not Person Agree) is relativized to participant features (i.e. [1] and [2]).

The first possibility posits a π-probe on the head (e.g. V, or Appl, fn 74) that introduces the lower internal argument, namely the Theme. This π-probe (e.g. [uπ]) would always be present in a Double Object Construction but can only Agree with 3rd person features and cannot match or license [1] or [2] features (while *v* [uπ-u3-u1-u2] can). Animate 3rd persons still require Person Licensing but have a wider distribution than SAP arguments, which cannot be licensed by a less specified probe.

The second possibility relativizes Person Licensing so that it is not sensitive to all π-features, but only to a subset of highly specified π-features found on SAPs. Preminger (2011) proposes that syntactic relations with Person can be relativized to [Participant] features, which are shared by 1st and 2nd person but exclude all 3rd persons (see also Rizzi 1990 on wh-features/Relativized Minimality). What relativized Person Licensing would

mean is that if a DP bearing 3rd person features does not enter into an Agree relation with a π-probe, it does not cause ungrammaticality unlike unlicensed 1st or 2nd person features. A similar view is presented by Nevins (2007) who argues that 3rd person should not be treated as personless across languages, but that 3rd person features are simply invisible to Person Agree when it is relativized to more highly specified 1st and 2nd person features. Under my suggestion of Person Licensing as relativized to SAP arguments, personful 3rd persons will still Agree with π-probes, such as *v*, and a 3rd person DP argument will be an intervener between *v* and another DP by Defective Intervention.

The one issue Person Licensing relativized to [Participant] comes up against is the ban on overlapping reference between arguments in an Ojibwe transitive (e.g. *'He(prox)-[3] sees him(prox)-[3],' see (30) in Chapter 2.4.2). I derive the ban on overlapping reference from the inability of two argument goals to check the same feature on the π-probe on *v*, but relativized Person Licensing would allow an unlicensed π-feature on an argument like 'he(prox)-[3].' Given the overlapping reference data, I opt for the first solution that posits an impoverished probe local to the Theme of a ditransitive. It remains the case that animate 3rd persons in Ojibwe bear π-features (in contrast with inanimates without π-features), but these 3rd person features, being less specified than those on SAP arguments, are more easily licensed in the syntax.

Now that I have set up my extension of Cyclic Agree of *v* to account for the Strong PCC in Ojibwe, I review the account of Person Restrictions laid out in Anagnostopoulou (2005) and argue for the details of my PCC account. Both accounts appeal to multiple checking against a single probe, however Anagnostopoulou does not appeal to Defective Intervention but instead claims that a transitive *v* bears a kind of phi-probe which checks [person] and [number] components of phi separately. I want to argue that Person is a separate probe from Number or other phi-features, especially in Ojibwe, and I suggest that my approach more straightforwardly unifies the Inverse System and the Strong PCC as they appear together in Ojibwe.

4.2.2 Comparison with Anagnostopoulou (2005)

The Cyclic Agree analysis I present for the PCC in Ojibwe builds on Anagnostopoulou (2005) who presents a clear and convincing syntactic analysis of the PCC and other Person Restrictions. In this subsection I review her account and indicate why I opt for my

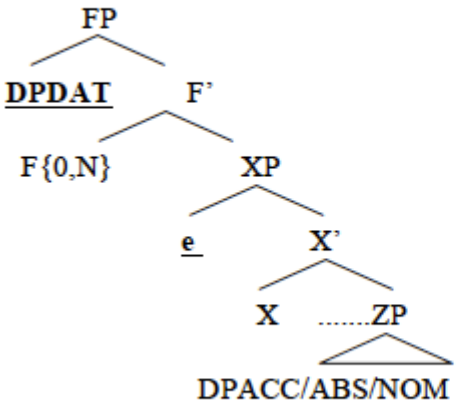
Cyclic Agree approach appealing to Person Licensing (rather than phi-licensing) and Defective Intervention. Anagnostopoulou (2005) accounts for the Person-Case Constraint by placing a phi-probe on transitive *v* that the internal arguments of a ditransitive can license their phi-features with. Only the higher Goal may check with person on the phi-probe, so that the Theme can check only with the number component of phi and cannot license π-features.[77] I argue that the Ojibwe data is better suited for a complex π-probe that is not just a part of a phi-probe tied to number, and that Person Agree in this language is very sensitive to Defective Intervention.

Anagnostopoulou (2005) proposes that Strong PCC languages license the phi-features of the internal arguments in transitive little *v*. Transitive *v* can check the phi-features of arguments, where phi is split into person and number and these components of phi check separately (discussed for (96)). The higher Goal/dative argument moves first to spec *v*P and can check person with *v*, and the lower Theme/accusative argument moves second to spec *v*P (tucking in below the moved Goal). The Theme cannot check with person on *v* because person on the phi-probe has already checked with the Goal, but the Theme can check its phi-features via the remaining number component of phi on *v*. A sketch of Anagnostopoulou's analysis of the Strong PCC is shown in (96), where F=*v* and F/*v* enters the derivation bearing {P(erson), N(umber)}, abbreviated as F{P,N}. In step I, the dative (Goal) raises and checks {P} on F{P,N}, which becomes F{0,N}. Step II shows the tucking in and phi-checking of the accusative (Theme), which can only check with the leftover {N} feature, leaving a fully checked phi-probe F{0,0}.

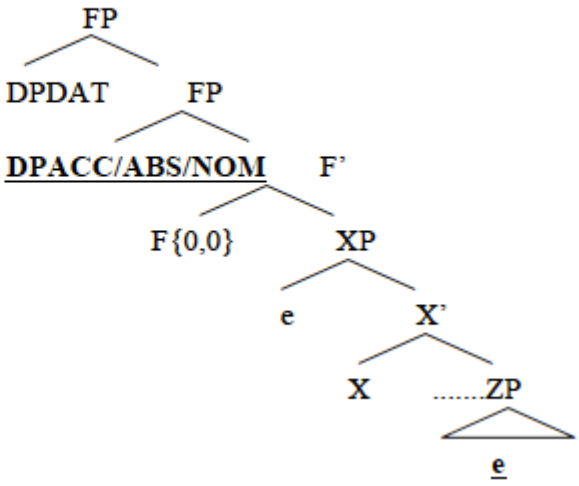
[77] Anagnostopoulou (2005) does not discuss the Person-Case Constraint in Ojibwe since I have recently identified it (but see fn. 75). She discusses the PCC in other languages, and the Inverse System in Passamaquoddy, but not the Person-Case Constraint in Algonquian languages.

(96) Split phi-checking with *v* (Anagnostopoulou 2005:12)

Step I: Checking of person feature by dative



Step II: Checking of number by structurally marked DP



Anagnostopoulou's (2005) analysis sketched in (96) involves *split-checking* with a single head: the phi-probe on F/*v* splits person and number and can check each component once with separate goals. The Goal checks person on the phi-probe so that the Theme cannot check person, but instead checks number such that both internal arguments are "phi-licensed" by *v*. Anagnostopoulou characterizes the need to phi-license arguments in terms of Case. As per Chomsky (2000, 2001), Case assignment only occurs when there is complete phi-checking, so arguments requiring Case cannot have unchecked phi-features. Hence, the Strong PCC arises when the lower internal argument bears π-features that cannot be phi-licensed, thereby disallowing Case assignment and requiring the Theme to be impoverished in terms of person. Now I compare Anagnostopoulou to my analysis of the PCC in Ojibwe, which differs in terms of Cyclic Agree (versus split-checking), Defective Intervention, and the status of Person with respect to other phi-features (i.e. number).

The first main difference between these accounts is that my analysis posits the sensitivity of Person Agree in Ojibwe to Defective Intervention, while Anagnostopoulou (2005) has no Defective Intervention for phi-licensing. The prevalence of Defective Intervention in Ojibwe Person Agree is shown even more clearly in (97). (97) shows ditransitive verbs bearing transitive inanimate (VTI) theme-signs, that I argued appear

when there is only a single animate (personful) argument that can Agree with *v* in a clause (discussed in Chapter 3.1).[78] What is curious is the form in (97)b, which has an animate Theme *waaboso* 'rabbit' under an inanimate Goal in the complement of little *v,* but the same VTI theme-sign *–(i)wee* as in (97)a is used.

(97) a. John gii-mii-g-**wee** zhooniyaa edzhikinomaging/nishaa
John PST-give-TRANS-VTI money(*inan*) school/charity(*inan*)
'John gave a money to the school/charity.'

b. John gii-mii-g-**wee** waaboso edzhikinomaging/nishaa
John PST-give-TRANS-VTI rabbit(*anim*) school/charity(*inan*)
'John gave a rabbit/money to the school/charity.'
(Ella Waukey, Berdina Johnston June 15, 2009)

Given Defective Intervention as formulated in (92), it might be expected that (97)b would use a transitive animate (VTA) theme-sign reflecting Agree of *v* with the external argument and animate Theme across the Goal, which is personless and presumably invisible to the π-probe. However, the Theme still cannot trigger π-agreement on the verb despite the Goal being personless and is unable to Agree with the π-probe on *v*. I take this data to indicate that Ojibwe Person Agree is subject to a more restrictive type of Defective Intervention: Person Agree is not only sensitive to matching π-features but searches for *DP goals*, which may in turn have matching π-features. I am assuming that the π-probe on *v* looks for DP goals, and is relativized to a [D] feature, so that once it has found a DP, like *nishaa* 'charity' in (97)b, it cannot probe past it (leaving *waaboso* 'rabbit' invisible to *v*) whether π-features have been successfully checked or not.

Given Ojibwe's excessive sensitivity to potential intervening goals, I assume that a strong version of Defective Intervention is active in this language, limiting Person Agree (particularly with *v*) to a very local environment. Hence I do not adopt Anagnostopoulou's (2005) style of phi-checking without reference to intervention, but opt for licensing internal arguments in situ and subject to strict locality conditions.

[78] The ditransitive in (97) can be contrasted with those in section 4.1 bearing the transitive animate (VTA) theme-signs that appear when *v* Agrees with two animate, personful arguments.

The second main distinction between these PCC accounts is the treatment of Person with respect to other phi-features. For Anagnostopoulou (2005), both the internal arguments in a ditransitive are "phi-licensed", whether it is by the checking of person features or number features. My analysis is centered on the complex π-probe on little *v*, without mention of other phi-features, and appeals to the requirement of Person Licensing (91) rather than general phi-licensing to derive Ojibwe PCC effects. I argue that Person Agree has different properties from other phi-features, where number is not subject to Defective Intervention, and where number features are not obligatorily licensed like π-features in Ojibwe.[79]

Number should be a completely separate probe from Person on *v* in Ojibwe because the two kinds of phi-features are not subject to the same restrictions on licensing or intervention. Consider (98), which is a ditransitive with an inanimate Goal and animate Theme in the Algonquin dialect of Ojibwe. Like (97)b, the theme-sign is still transitive inanimate *–we(n)* (the Algonquin version of VTI *-iwee*), and no π-agreement is triggered by the lower animate Theme, *waabosuk* 'rabbits.' Interestingly, optional plural agreement with the Theme across the intervening Goal is possible, indicated by the suffix *-uk* '3rd animate plural' on the verbal complex.[80]

(98) ni-gii-miig-wen(-**uk)** waabos-uk kikinamadenaning (Algonquin)
1-PST-give-VTI-3pl(anim) rabbit-pl(anim) school(inan)
'I gave rabbits to the school.' (P.D., A.S., J.T. April 30, 2012)

Supposing that number and person are part of the same phi-probe in (98) predicts that both number and person agreement should be equally restricted by Defective Intervention. If phi-agreement (here number) is possible with the Theme, then π-agreement should also be possible – in particular by triggering a transitive animate theme-

[79] It will become clearer in Chapter 6 and Chapter 7 how pervasive Person Licensing is, to the point that it is able to do the work of Case Licensing in some languages. There is no parallel for "number licensing."

[80] The Goal *kikinamadenaning* 'school' argument in (98) has the locative suffix *–ing*, giving a literal translation along the lines of 'place of education'. I do not consider this to be a prepositional phrase, and the same pattern holds when an inanimate noun without *–ing* (e.g. *nishaa* 'charity' in (97)) is the Goal in a ditransitive construction.

sign suffix when the Goal is personless. However, π-agreement with the Theme never occurs (Rhodes 1990), and either a personful or personless Goal can intervene between the π-probe on *v* and the Theme. Conversely, number agreement with the Theme is not blocked by Defective Intervention of the Goal, strongly indicating that person and number are not sensitive to the same restrictions. Person and number cannot be part of the same phi-probe on *v* since there would be no way to relativize split-checking of a single probe to different intervention effects.

Further, the number agreement in (98) is optional, a property not shared with Person, which cannot be omitted in Ojibwe, illustrated in (99). For example, (99)b is ungrammatical because it has a transitive inanimate theme-sign, which does not encode the animate 3rd person features of the internal argument.

(99) a. *(n-)waabam-aa
1-see-DIR(NL)
'I see him.'

b. * n-waabm-am
1-see-VTI
'I see him.'

In the syntax Person is not always related to other phi-features, like number or gender, but can act independently in terms of syntactic Agree and licensing. I argue that it is true that some languages require their arguments to be Person Licensed, and not that they must be generally phi-licensed, since number features do not widely restrict the distribution of arguments like π-features do.

To summarize this subsection, I adopt the basic idea of Anagnostopoulou's (2005) syntactic approach to the PCC to account for the Ojibwe data but I differ on how the PCC is derived (by Cyclic Agree, rather than movement to licensing heads). My account covers the range of theme-signs found across Ojibwe verbs types, as well as deriving the PCC that Anagnostopoulou is also concerned with (shown for other languages in Chapter 7). I argue that Defective Intervention is active in Ojibwe Person Agree such that an intervening Goal (or, more accurately, an intervening DP) blocks a lower Theme

argument from being able to license π-features with *v*, leaving features like [1] or [2] unlicensed on a Theme. Finally I treat Person and number separately rather than as syntactically connected as phi-features. Person can act independently of other phi-features, such as number, and I maintain that PCC effects arise because of a lack of Person Licensing, not because of a requirement on phi-licensing, which does not factor into the analysis.

Now that I have presented my analysis of the Strong PCC in Ojibwe and argued for my approach I turn to the discussion of Anagnostopoulou (2005) and Bianchi (2006) on the Inverse System in Algonquian languages. They extend their syntactic analyses of the PCC to the Inverse System, considering PCC and the Inverse System two different domains of a Person Restriction.

4.2.3 PCC and the Inverse System: Anagnostopoulou (2005) & Bianchi (2006)

There is a wide range of literature on Person Restrictions and the Person-Case Constraint (e.g. Perlmutter 1971; Bonet 1991, 1994; Sigurðsson 1996; Haspelmath 2001; Adger & Harbour 2007; Nevins 2007, and many others), including extensions of the PCC to account for the Algonquian Inverse System by Anagnostopoulou (2005) and Bianchi (2006). In this section I discuss the proposed connections between the PCC and the Inverse System presented by Bianchi (2006) and Anagnostopoulou (2005). These analyses posit movement of arguments to license phi-features with the aim of accounting for the syntactic effects of the inverse in Passamaquoddy discussed by Bruening (2001).

I first sketch the Inverse System accounts of Anagnostopoulou (2005) and Bianchi (2006), who claim that the Inverse System is a version of the PCC involving a single phi-licensing domain for the subject and object. I then discuss certain questions arising from the Ojibwe data, which I have shown has the Inverse System as well as the Person-Case Constraint. I suggest that while Anagnostopoulou (2005) and Bianchi (2006) (also Bruening 2001, discussion in Chapter 3.3) may derive syntactic effects of the Inverse System in some Algonquian languages, they do not straightforwardly account for the Ojibwe morphology or the appearance of theme-signs outside the core Inverse System.[81] I

[81] Bianchi (2006) and Anagnostopoulou (2005) restrict the π-specification of Themes in the PCC in different ways, but both analyses have the same type of DP movement where an inverse internal argument

maintain that my analysis of theme-signs as complex π-agreement derived by Cyclic Agree best characterizes the morphology of the Inverse System.

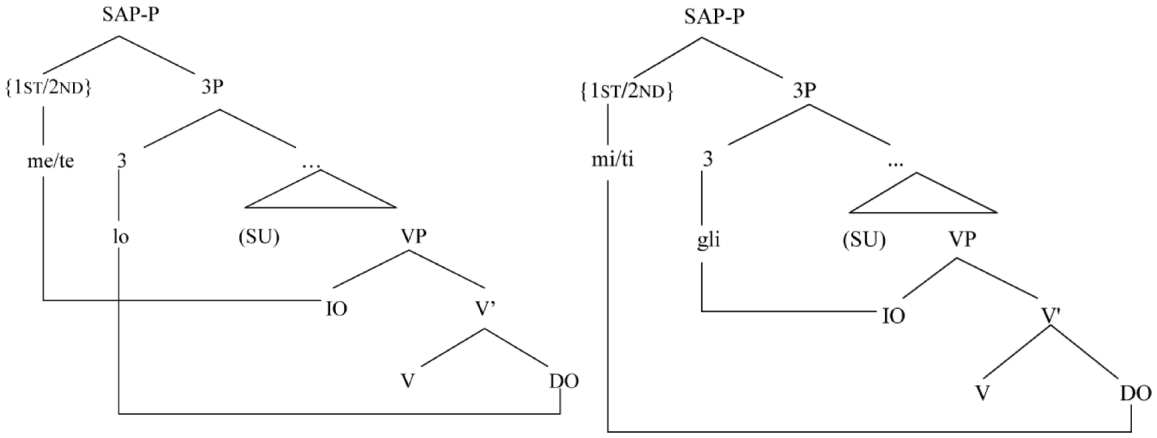
Bianchi (2006) claims that there are licensing fields, shown in (100), with a set of projections that objects can move to and license their π-features (i.e. SAP-P and 3P), while subjects are licensed in another field (above T, not shown in (100)). The object licensing field corresponds to Anagnostopoulou's (2005) *v*-Transitive, and the subject licensing field to T. Bianchi (2006) claims that objects in a ditransitive must move to a VP external projection to license π-features, but the movement is subject to locality which allows crossing paths, as in (100)a for a grammatical Italian ditransitive, but not nested paths, as in (100)b for a PCC violation in Italian.

(100) a. *Crossing paths*

Me lo ha affidato.
1DAT ACC has entrusted
'He entrusted me to him.'
(Italian; Bianchi 2006:2027)

b. *Nested paths

***Mi** **gli** ha affidato.
1ACC **3DAT** has entrusted
'He entrusted him to me.'

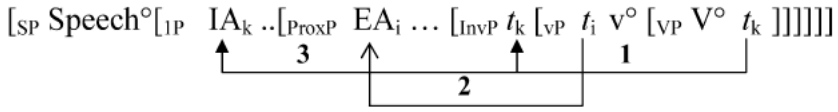


Bianchi (2006) claims that while PCC ditransitives have two licensing fields (one for objects, another for subjects), transitives in the Inverse System have a single *v*P external licensing field for both the internal and external argument, shown in (101). The inverse, for example, with a 3rd person external argument and 1st person internal argument (i.e.

moves over the external argument in steps. I discuss Anagnostopoulou (2005) in terms of the morphological spell-out of Inverse System theme-signs, since a parallel discussion is not available in Bianchi (2006).

'He saw me.'), requires the internal argument to move across the external argument to license with the higher 1P projection. In the PCC such movement causes unacceptable nested paths, seen in (100)b, but in the inverse the movement of the internal argument is rescued by an extra step through spec InvP before raising above the external argument to license a 1st or 2nd person feature.

(101) One licensing field for Plains Cree/Inverse System (Bianchi 2006:2058)

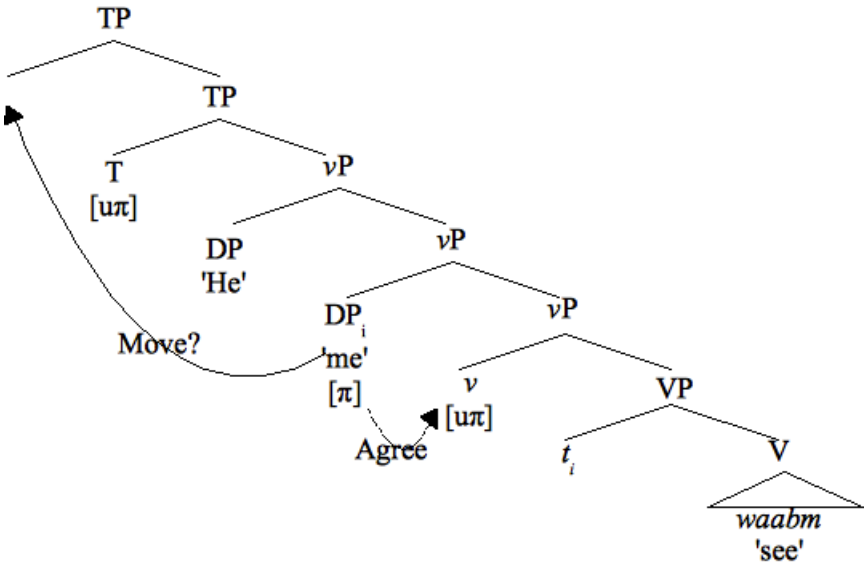


Similarly, Anagnostopoulou (2005) states that while ditransitives subject to the PCC have two heads to check phi-features – *v* for the internal arguments and T for the external argument – Inverse System languages like Passamaquoddy only host person (or participant) features in T. A [+Person] argument, like a 1st or 2nd person, must check with T to license the [+Person] feature. So, in an inverse context like 'He sees me,' the 1st person internal argument bears [+Person] (but the 3rd person does not) and must move over the external argument to check its person feature with T. Again, like the proposal by Bianchi (2006), and the original formulation from Bruening (2001) (Chapter 3.3), Anagnostopoulou (2005) derives the syntactic inversion of an internal argument over the external argument in an inverse context.

Now I discuss how Anagnostopoulou (2005) and Bianchi (2006) might include the possibility of Ojibwe, which shows the full Inverse System as well as the Strong Person-Case Constraint. On one hand, if Ojibwe is treated like the PCC in Italian, it will have two licensing domains (e.g. T and *v*, for the subject and objects respectively), allowing the subject and (highest) internal argument to be fully licensed in all constructions. If this is the case, the inverse cannot be derived as movement of the internal over the external argument, as the internal argument will be licensed low, by *v*, and does not compete with the subject for licensing with T. For example, the 1st person internal argument in (102)

would be able to check its π-features with *v* and does not need to move to spec TP to be licensed (compare (102) with (101)).[82]

(102) n-waabm-ig
1-see-inv(NL)
'He/she sees me.' (Valentine 201:272)



On the other hand, if Ojibwe has only one licensing domain in or around T (as suggested by Anagnostopoulou 2005 and Bianchi 2006 for the Inverse System), questions arise with deriving the PCC. Anagnostopoulou (2005) claims arguments must be phi-licensed to receive Case, but a ditransitive with a single licensing head (i.e. T) could only license person on, say, the external argument and number on the Goal, but it is not obvious how a Theme would be phi-licensed (in order for it to receive Case).[83] Additionally, if the Ojibwe PCC is derived by a single person licensing domain, why is the Italian or French PCC derived by two licensing domains? Although it may be possible, extending the

[82] It can be stipulated that there is an EPP feature on T requiring the movement of the 1st person internal argument to spec TP, but then movement in the inverse would not relate to the licensing of phi-features.

[83] One could posit a number probe that checks with the Theme, but this detail reduces to the claims I made in the previous section that Person and number can be separate (see also footnote 15 in Anagnostopoulou 2005:23).

analyses of Anagnostopoulou (2005) and Bianchi (2006) to account for the co-occurrence of the Inverse System and PCC in Ojibwe is not straightforward and raises questions about whether Person Restrictions in Ojibwe and languages like Italian are directly connected.

The second question for these views of the Inverse System is concerned with the spell-out of the theme-sign suffixes. I discuss Anagnostopoulou's (2005) spell-out of Passamaquoddy theme-signs, which is parallel to Bruening's (2001, 2005) view of spell-out for the Inverse System. Anagnostopoulou posits simplified person features, such that 1st and 2nd person have a [+Person] feature, 3rd person proximates can bear [-Person], and other 3rd persons lack person features. T has an EPP feature requiring that an argument bearing [±Person] move to spec TP and Agree with T. T Agrees with an SAP bearing [+Person], unless there are only 3rd persons, then one DP is designated as proximate by the assignment of [-Person] and can move to spec TP as a last resort (Anagnostopoulou 2005:23). The direct context involves an external argument with [±Person] moving to spec TP (e.g. 'I[+Person] see him.'), and the inverse is when the internal argument bears [±Person] and moves over the external argument to spec TP (e.g. 'He sees me[+Person].'). Direct theme-signs correspond to the movement of the external argument, while inverse theme-signs spell-out when the internal argument has moved (possibly identified by a feature raising the internal argument to spec *v*P/InvP before moving to spec TP, see (101)). In local contexts, as in 'I[+Person] saw you[+Person],' both arguments must move to spec TP and check their [+Person] features, which Anagnostopoulou (2005) claims is possible by simultaneous *Multiple Agree* of both arguments.

My claim is instead that the theme-signs are just π-agreement (although complex), and not the spell-out of syntactic features triggering movement (i.e. an EPP/[±Person] feature) or some other kind of Agree only with SAP arguments. It is tempting to simplify the specification of π-features and avoid any kind of π-feature ranking, but doing so means that a comprehensive account of theme-sign suffixes either becomes needlessly complicated or impossible.[84] The Ojibwe data clearly shows ranking relations between

[84] Bruening (2001, 2005) does discuss transitive inanimate and animate intransitive plus object constructions, but he treats them as direct, unable to produce an inverse form. He does not derive the spell-

SAPs and 3rd persons, types of animate 3rd persons (proximate versus obviative), animates and inanimates, and even between kinds of SAPs.

This subsection has introduced alternative views of the Inverse System, particularly in relation to Person Restrictions and analyses of the Person-Case Constraint. Although alternate views are possible, I have argued that they run into many complications when dealing with the complex morphology of the Inverse System and Ojibwe verbal complexes. The approaches of Anagnostopoulou (2005) and Bianchi (2006) derive the syntactic effects of the Inverse System discussed for Passamaquoddy in Bruening (2001), and may be correct for syntactic effects. However my analysis has more comprehensive coverage of the morphology of the Ojibwe Inverse System.

4.3 Chapter Summary

This section introduced ditransitive data from Ojibwe, which I claim is also subject to Cyclic π-checking that encodes the π-features of clausal arguments. Cyclic Agree derives the theme-signs in ditransitives as it did in transitives and intransitives, maintaining my claim that Ojibwe theme-signs are the spell-out of Person agreement with multiple clausal arguments. Ditransitives in Ojibwe are subject to a restriction on the π-specification of the lowest internal argument, the Theme, which can only be 3rd person. I identified this as the Strong Person-Case Constraint that is active in many different languages, like in the Romance family. I argued that the Cyclic Agree of *v* can be extended to account for the Person-Case Constraint in Ojibwe given the requirement of highly specified π-features to enter an Agree relation in the syntax (i.e. Person Licensing) and the sensitivity of Person Agree to Defective Intervention in this language. My view of the Person-Case Constraint is similar to other one-to-many probe-goal approaches, such as Anagnostopoulou (2005), but I have argued that the Cyclic Agree approach in conjunction with Defective Intervention directly connects the PCC to the Inverse System and properly accounts for the Ojibwe morphology. The accounts of Anagnostopoulou (2005) and Bianchi (2006) extended from the PCC to the Inverse System can account for the syntactic inversion

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out of VTI or VAI theme-signs alongside the Passamaquoddy Inverse System, as I do for the parallel morphology in Ojibwe in Chapter 3.1.

Bruening (2001) claims is related to the inverse, but they are not comprehensive in accounting for the complex theme-sign morphology. I argue that the morphology in a language like Ojibwe, which shows specific interactions between π-features (Chapter 2.1), cannot be fully accounted for with impoverished syntactic person features. The interaction of ranked π-features must be available in the syntax, not as a grammar external hierarchy but as entailment relationships between π-features. My account has the advantage of deriving the theme-sign morphology beyond the Inverse System, which consistently relates to the π-features of the clausal arguments, even apart from direct/inverse interactions.

Before concluding this section I want to propose that my Cyclic Agree account of the Person-Case Constraint is not valid only for Ojibwe, but can be extended to languages such as French and Italian. These languages also disallow non-3rd person Themes/accusatives in ditransitives, shown in (103).

(103) a. * **Mi** **gli** ha affidato. (Italian)
1.ACC **3.DAT** has entrusted
'He entrusted me to him.'

b. Me lo ha affidato.
1.DAT ACC has entrusted
'He entrusted him to me.' (Bianchi 2006:2027)

As I will further argue in the Chapter 7, positing *v* as the locus of Person Agree can account for the Person-Case Constraint in Romance languages, as well as other Person Restrictions. I claim that viewing the PCC as Person Licensing centered around *v* and subject to Defective Intervention better unifies the constraint in Ojibwe and languages like Italian. For one, separating Person Licensing from movement triggered in the inverse means both Ojibwe and Italian can license their arguments' π-features by *v* in situ without predicting inversion effects (e.g. with respect to scope or binding) in a construction like (103). I am suggesting that PCC languages also have one central locus of person licensing, and that it is not in T but in *v*, which licenses any external arguments and Goals, but leaves Themes unlicensed in ditransitives. The morphological coverage of my

account links directly into how π-features can be licensed cross-linguistically. Person Restrictions arise in environments like the Double Object Construction, when there are two DPs in the complement of *v* and are naturally related to an intervention effect between those two internal arguments.

Summary of Part One

The aim of my account of the Ojibwe Inverse System is to provide a comprehensive analysis of the theme-sign morphology. I argue that the theme-sign suffixes are properly characterized as complex Person agreement that can encode π-features from two arguments. The consequences of my account are not only the wider coverage of the Ojibwe theme-signs beyond the core Inverse System, but also a view of the morphosyntax of Person Restrictions in ditransitives and the ban on overlapping reference in transitives. I claim that the account of complex Person Agree tells us about the behaviour of Person Licensing and Person Restrictions, which are found in many different languages, and provides a more straightforward connection between the Inverse System and accounts of the Person-Case Constraint.

I adopt the notion of Cyclic Agree from Béjar & Rezac (2009) who argue that little *v* can bear a complex probe of π-features that can potentially Agree with both an internal and external argument. I propose different details for the mechanism of Cyclic Agree to account for the Ojibwe theme-signs in the Inverse System, and show that my system accounts for theme-signs in the transitive inanimate and animate intransitive verbal paradigms. I argue that Participant Hierarchy (1) effects relate to the morphosyntax primarily via the complex π-probe on *v*: *v* bears a set of π-features organized by entailment relations (e.g. participant entails 3rd person) and illustrated as a feature geometry. I claim that the descriptive hierarchy actually reflects the entailment relations between features and that syntactic accounts of the Inverse System that over simplify person features and their internal organization are either overcomplicated or insufficient to account for the range of theme-sign morphology.

I discussed the syntactic effects of the Inverse System laid out by Bruening (2001, 2005, 2009) based on scope and variable binding behaviour in Passamaquoddy that is dependent on whether a construction is direct or inverse. Bruening argues that the inverse involves A-movement of the internal argument over the external argument, inverting the c-command relations. I showed that scope in Ojibwe is calculated apart from any

inversion, but that variable binding does show an apparent internal over external argument structure. I presented an alternative account to Bruening's A-movement, appealing instead to a kind of clitic doubling. However, the goal of my analysis is to account for the morphology and interaction with Person in the Inverse System, which I argue can be treated separately from any syntactic movement effects of the inverse.

In Chapter 4 I looked at ditransitive constructions in Ojibwe which also spell-out direct and inverse theme-signs, and interestingly show the Strong Person-Case Constraint (Bonet 1991, 1994). I offered an account of the Person-Case Constraint in this language by extension of Cyclic Agree, claiming that Person Agree with *v* is subject to Defective Intervention and that arguments bearing specified π-features (e.g. [1], [2]) must be Person Licensed. This account is similar to Anagnostopoulou (2005), who derives the Person-Case Constraint and Inverse System as phi-Agree in different syntactic domains. I connect the Inverse System and Person-Case Constraint by Cyclic Agree with the complex π-probe on *v*, along with the need for arguments to license their π-features. The extension of my Person-Case Constraint account to other languages in is investigated in Chapter 7, which focuses on the realization of Person Restrictions.

My analysis of Ojibwe morphology uses Cyclic Agree, organized π-features in the morphosyntax and a sensitivity of the spell-out component to features as checked when entailed or not. Appealing to feature entailment in addition to checking, both resulting from Agree, is a complication of the system, but a complication is necessary to account for the complex Person morphology found on the Ojibwe verbal complex. Simplification of the mechanism used to determine the spell-out of theme-signs does not have the same empirical coverage of the Inverse System.

Part Two moves to the implications of Person Licensing and Restrictions as a result of Cyclic Agree with *v* beyond Ojibwe. I argue that Person Licensing is actually a deep requirement in the grammar of some languages and can do the work of syntactically controlling the distribution of arguments, akin to Case Licensing. Person Licensing has distinct properties from standard Case, but both satisfy an underlying Universal of Argument Licensing.

Part Two Person Licensing

Part Two discusses how DP arguments are licensed in different languages, looking at the status of Case cross-linguistically and how Person (π) feature checking complements and overlaps with licensing by Case features. I make the claim that there is a universal principle of Argument Licensing that underlies Case Licensing but that can also be realized as Person Licensing. Both Case and Person Licensing are subject to a version of the "Case Filter" where arguments must be licensed, however each type of Argument Licensing has its own bundle of properties. I argue that this view of Person Licensing as a realization of Argument Licensing, rather than of Case itself, allows for a more elegant view of argument distribution across languages. I claim that Algonquian languages not only license their arguments by their Person features, but that, unlike English, they do not license their arguments by Case. I show that Ojibwe and some other Algonquian languages do not have evidence for Abstract Case at all since these languages lack Case marking and A-phenomena correlated with standard Case (Ritter & Rosen 2005, see also Ritter & Wiltschko 2004, 2007, 2010). In addition to Ojibwe as Caseless are the Romance languages, which, among others, show a range of Person Restrictions alongside typical Case phenomena. I posit that these languages realize Argument Licensing dependent on both Case and Person features. This view of Case and Person creates a three-way typology where a language may license arguments by Case or Person, or by both. Chapter 8.2 briefly investigates the possibility that there are further features by which arguments can be licensed in a language.

Part Two is organized as follows. Chapter 5 looks at standard Case Theory. I show that Ojibwe lacks any evidence for Abstract Case and I propose that Case is only a realization of the underlying universal of *Argument Licensing* rather than a universal itself. Chapter 6 introduces *Person Licensing* as an alternative to Case that also falls under *Argument Licensing*, identifying a bundle of properties of Person Licensing that distinguish it from Case Licensing. Chapter 7 looks at the wider occurrence of Person

Licensing as seen in Person Restrictions, such as the Person-Case Constraint and Quirky arguments, showing the presence of Person Licensing cross-linguistically.

Chapter 5 Argument Licensing

The question of argument licensing controlling the distribution of arguments is core to the syntax of each language. Arguments must be licensed, initially by the assignment of theta-roles, and then by the assignment of some manner of Case – inherent or structural (e.g. Chomsky 1981). Early views of Case, such as Chomsky (1981, 1986), have certain properties, such as specific heads that assign Case (e.g. T, *v*/V, P) and the manner of movement of DPs to get Case, but more recent work on DP distribution cross-linguistically has suggested that these properties do not hold for all case systems proposed. My view is that perhaps these extensions are not necessarily Case, in the sense that Case has particular properties and mechanics, but that they may be examples of other systems by which DP arguments are syntactically licensed.

This Chapter lays out the basic idea of Case Licensing apart from more complex versions of Case used to cover a wider range of argument distribution. I propose that Case itself is not primary but is a common realization of the underlying universal of Argument Licensing, which in turn can be realized by Person Licensing and not just by Case. I choose to refer to a "Standard" version of Case rather than assuming other modified notions of Case, not to dismiss later work, but to reassess how arguments are licensed in the syntax with the possibility of other types of licensing. I propose in this Chapter that Case is not the only system by which arguments can be syntactically restricted, but that a more general principle of *Argument Licensing* can also be realized as Person, as I claim is the situation for Ojibwe. My concern is that including certain later extensions of Case theory will not necessarily relate to Case in a strict sense, but could actually be different types of licensing (e.g. that I would classify as Person Licensing, or otherwise). I consider Case to be a particular syntactic system that relates heads and arguments and is subject to a certain bundle of properties. I do not use Case as the general term for how the distribution of arguments is controlled, which I instead term *Argument Licensing*.

5.1 The Standard of Case

Here I discuss concepts surrounding what I will refer to as *Standard Case theory* as laid out in Chomsky (1981, 1986).[85] The central components are (i) the *Case Filter*, requiring arguments be syntactically licensed by Case, and (ii) A-positions or A-movement that betray the existence of Abstract Case in a language apart form any morphological marking of case.[86,87] Chomsky (1981) discusses Case in terms of Government and Binding theory, but the main concepts remain in later instantiations of Case, and phenomena like the Passive and Raising are typically analyzed as involving movement for Case. By identifying what Standard Case looks like, it can be understood what types of phenomena are accounted for under straightforward Case, and which require some kind of extension.[88]

Standard Case theory basically requires that arguments (i.e. DPs or NPs) be assigned Case in appropriate configurations in the syntactic derivation. There is also a notion that Case marking relates to the Grammatical Function of a DP, corresponding

[85] Building on the work of Vergnaud (e.g. 1982).

[86] Later views on A-movement separate its motivation from Case assignment to [EPP] features, e.g. Chomsky (2000). However, Bošković (2002) argues that the EPP as a sole motivator of A-movement should be discarded and that much of A-movement should be analyzed as Case motivated. I take the view that A-movement can feed the satisfaction of the Case Filter, where the lack of movement would violate the Case Filter, resulting in Case motivated A-movement.

[87] There are some well-known non-canonical types of "A-movement" that are so called due to their ability to A-bind, such as some Japanese scrambling. Saito (1992) proposes that the type of A-scrambling found in Japanese is not based on typical A-positions, but rather non-A non-operator positions that can be reanalyzed as A-type positions at the surface level. What this means is that non-canonical A-movement cannot be counted as evidence of Abstract Case in a language since it is not reasonably assumed to be Case driven.

[88] Extensions of Standard Case (e.g. in the sense of Chomsky 1981) include accounts of Quirky Case, A-scrambling, and expletive constructions (e.g. 'There arrived three men.'). These phenomena may relate to Case, but do not directly bear on the basic notion of syntactic licensing of DP arguments. Note that Ojibwe does not have expletive DPs, neither are they expected under the view this language lacks Case, assuming expletives are a last resort to spell-out or discharge Case features (e.g. Travis 1984).

with surface subjects, objects, and so on. The most basic property is the Case Filter, paraphrased in (1).[89]

(1) **Case Filter**: All DPs must be assigned one (and only one) instance of Case.

The Case Filter is a requirement that arguments be properly licensed in the syntactic component by receiving a Case value somewhere in the derivation. The examples in (2) illustrate the Case Filter in (1) with a contrast between the DP *John* in a position where it cannot get Case (a) as the subject of an infinitive, and where *John* can get Case (b) when the embedded clause is finite.

(2) a. * It is unclear [who$_i$ [John] to visit t_i]]. (Chomsky 1981:49)
b. It is unclear [who [John] will visit t_i]].

Case can be assigned to a DP in two ways, either a DP receives Inherent Case as per the Uniformity Condition on Case-Marking in (3), or a DP gets Structural Case in a certain syntactic configuration (4).

(3) **Uniformity Condition on Case-Marking (Inherent Case)**: If α is an inherent Case-marker, then α Case-marks NP(DP) if and only if α theta-marks the chain headed by NP(DP). (Chomsky 1986:194)

(4) **Structural Case**: Case is assigned to an argument *YP* governed by a Case assigner *X* in structural configurations.

One configuration for Structural Case occurs when nominative is assigned to a subject DP that has moved to the specifier of TP. T is an important locus of Case in the standard theory as it assigns nominative to (surface) subjects but can only do so when inflected.

[89] The Case Filter from Chomsky (1981:49): "*NP if NP has phonetic content and has no Case." My definition in (1) also indicates that DPs cannot get multiple instances, as is assumed in Chomsky (1981) (see also discussion of "polyvalent" case in Chapter 6.2.2).

Defective T, found in non-finite clauses, is not a Case assigner, shown in the embedded clause of (2)a, and it is with non-finite clauses that violations of the Case Filter (1) are commonly seen.[90]

Structural Case is of particular interest because arguments often move from their Merge or theta-positions to get a Case value. Although some languages show overt marking corresponding to underlying Case assignment on a DP (e.g. Latin nouns, English pronouns), many languages have either impoverished case marking or indirect correspondences to syntactic Case. The assumption is that languages are universally subject to the Case Filter on *Abstract Case*, namely, the assignment of Case to DPs, regardless of the correspondence to overt marking. Evidence for Abstract Case comes from movement triggered by the need of an argument to receive Case, which involves the assignment of Structural (rather than Inherent) Case. For example, the embedded subject *Rose* in (5)a cannot get case from the non-finite embedded clause, but if *Rose* moves to the finite matrix clause, like in (5)b, it can get Case. Even though English nouns do not show different case markings, there is evidence of Abstract Case in the movement of DPs to receive Structural Case.

(5) a. * It seems [Rose to have disappeared].
b. Rose_i seems [t_i to have disappeared].

The notion of A(rgument)-position is relevant for Standard Case theory as a position in which arguments can get Case, or move through to get Case. In (5)b *Rose* moves from the embedded clause to an A-position in the matrix clause (i.e. spec TP) where it gets Case. Chomsky (1981) uses the term *A-position* defined in (6), as a potential theta-position (including spec TP).

(6) **A-position**: An A-position is one in which an argument such as a name or variable may appear in D-Structure; it is a potential theta-position. (Chomsky 1981:47)

[90] Note that Ojibwe does not have non-finite clauses (Valentine 2001:648).

Chomsky (1981) identifies a chain as in (7), where members are locally bound by each other. Further, an A-chain is defined in (8), where the initial position of the chain is an A-position from (6).

(7) **Chain**: C=(α_1, … , α_n) is a *chain* if and only if:

(i) α_1 is an NP

(ii) α_i locally A-BINDS α_{i+1}

(iii) for i >1, (a) α_i is a non-pronominal empty category, or (b) α_i is A-free

(iv) C is maximal, i.e., is not a proper subsequence of a chain meeting (i-iii).

(Chomsky 1981:333)

(8) **A-chain**: A chain is an A-chain if α_1 is an A-position (as per (6)).

I will use the term 'A-position' in the generalized sense in (9) that refers to positions in A-chains rather than directly to Chomsky's (1981) definition in (6).[91]

(9) **A-position (generalized)**: An A-position is a position in an A-chain.

An A-chain can be constructed by the movement of a DP, from its initial syntactic position to the position it gets a Case assignment such that an A-position can be an argument's theta-position or a position it moves to or through to get Structural Case. Viewing A-positions as the links of an A-chain fits with Chomsky's (1981) modified Case filter (compare with footnote 89) referencing chains, seen in (10).

(10) The chain C=(α_1, … , α_n) has the Case K if and only if for some i α_i occupies a position assigned K by β.

[91] Note that A-chains are defined in terms of (6), which might be considered initial A-positions. The definition of A-chain is not dependent on the generalized notion of A-position in (9).

Standard Case theory is subject centrally to the Case Filter, which is satisfied by DPs occupying the appropriate syntactic A-positions or A-chains, either by merge or by *A-movement*. A-movement is the movement of a DP from an A-position, to an A-position, and it is generally assumed that the final A-position of a DP (i.e. the end of the A-chain) is the position in which it is assigned (Structural) Case. A-movement is obligatory and traditionally Case driven, such that movement of a DP after it has been assigned Case must be to an A′-position and is considered A′-movement (i.e. part of an A′-chain) (11):

(11) **A-movement**: A-movement is the obligatory movement of a DP from a Caseless A-position (e.g. theta-position) to an A-position. A-movement terminates in a position where Case is assigned.

I take Standard Case to refer to the system laid out in Chomsky (1981) that satisfies the Case Filter (1) by assigning DP arguments a Case value in an A-position.[92] A DP may get Inherent Case in its theta-position from its theta-assigner/selecting head, or it may get Structural Case in a certain configuration with a head (e.g. nominative from T, accusative from *v*) and can undergo A-movement to a higher A-position. Evidence for the presence of Abstract Case in a language is Case motivated A-movement, where a DP must move in the syntax to receive (Structural) Case.[93] I discuss Raising Predicates and the Passive construction since these are traditionally analyzed as A-movement and are some of the standard hallmarks of Abstract Case. These *A-phenomena* identify the presence of Case in a language despite any lack of overt case marking.

First, Raising Predicates such as *seem, appear* and *likely* take a clausal complement,

[92] I am considering the properties of Case in terms of traditional views, in particular the Government and Binding discussion of Chomsky (1981, 1986). In Chapter 6 I adopt the more contemporary notion that Case can be considered the checking of [uCase] associated with a [N]/[D] feature (i.e. Chomsky 1993; similarly Pesetsky & Torrego 2002 who consider Case checking of a [uT] feature). However, despite the exact form of the features motivating Case valuation in the syntactic theory, I assume that the same Standard Case properties should be consistently considered (e.g. the Case Filter is satisfied or violated in the same types of environments).

[93] For example, in the absence of Inherent Case. I focus on Structural Case, which can be identified apart from morphology, but by syntactic movement.

as in (12), and are analyzed as having no theta-role to assign to a DP, thereby allowing an expletive subject (*it* in (12)a). When a raising predicate takes a non-finite complement, the embedded subject cannot get nominative Case from defective T and so raises to the matrix subject position where non-defective matrix T can assign Case (12)b. Here we see the obligatory A-movement of the DP *Martha* that gets a theta-role in the embedded clause and Case in the matrix clause. As a final note, (12)c shows that it is not generally acceptable for a DP to receive two instances of abstract Case.[94] With an embedded finite clause, the DP *Martha* moves from a Case marked position in the embedded clause to another Case marked position in the matrix clause, violating the general Case Filter in (1) by receiving more than a single instance of Case, causing ungrammaticality.

(12) a. It seems [Martha has married Mickey].
b. Martha$_i$ seems [t_i to have married Mickey].
c. * Martha$_i$ seems [t_i has married Mickey].

Second, the Passive Construction is standardly thought to involve the A-movement of an underlying object to surface subject position when object Case is absorbed by the passive morphology. The active sentence in (13)a shows the basic SVO word order in English, with a nominative subject *Donna* and accusative object *The Doctor*. The passive in (13)b involves the movement of the object *The Doctor* to subject position (spec TP) to get nominative Case after accusative Case becomes unavailable within the passivized VP.

(13) a. Donna hit the Doctor. *Active*
b. The Doctor$_i$ was hit t_i (by Donna). *Passive*

These types of A-phenomena are what indicate the presence of Abstract Case in a language. Canonical A-movement is the displacement of an argument from a caseless position toward a position where it can receive a Case value.

[94] See Chapter 6.2.2 and Merchant (2006) who discusses apparent multiple assignments of case to a single DP. I consider this a property of morphological case, and not Abstract Case.

In summary, I am considering standard Case Theory as conceptually laid out in Chomsky (1981) and as identified by canonical A-movement constructions, including Raising Predicates and the Passive. The treatment of Standard Case in current literature is not identical to Chomsky's (1981) formulation (see fn. 88), however the basic notions remain: the Case Filter (1) requires the syntactic licensing of arguments by appropriate Case assigning heads, and Abstract Case is identified by its effects, namely A-movement of an argument for the assignment of Case. Much of Case theory revolves around T as the licensor of nominative, a structural Case. Inflected T can assign Case to a DP (traditionally in its specifier), but defective T in non-finite clauses cannot, causing the A-movement of the subject of a non-finite clause. Hence, evidence for Abstract Case often involves interactions with types of T that can or cannot assign Case and relate to A-movement.[95]

Case Theory has taken many different shapes and undergone a myriad of extensions beyond Standard Case to account for the wide range of argument distributions and agreement found cross-linguistically. In the following section I want to take a step back from any extensions and consider some data in light of Standard Case, as identified by its effects, and issues posed to that theory. The overarching idea is that certain data that has been analyzed under Case are not best understood by Case theory, but that there may be other systems controlling the syntactic licensing of arguments. Section 5.2 questions the presence of Abstract Case in Ojibwe and related Algonquian languages. A-phenomena (e.g. Raising and the Passive) are evidence for Abstract Case, but Algonquian languages do not show any constructions that line up with Case driven DP movement. I will argue that Ojibwe shows a clear situation where it is not useful to describe the distribution of arguments by Case, but instead that Ojibwe DPs are syntactically licensed by their Person features in the absence of Case. I will propose that Case and the Case Filter are one

[95] I focus on T as a structural Case assigner (e.g. for nominative), rather than *v* (e.g. accusative). The interaction of arguments with T are more clearly seen, with respect to the movement of a subject from merge position to spec TP and the stark contrast between the Case assigning abilities of non-defective versus defective T. One could also look at the evidence for Case in a language centered around *v*, particularly in assigning accusative case, however the evidence for movement, such as Object Shift, is more subtle and the effects of Case within the *v*P in contrast to other operations (namely, π-Agree) are not as easily teased apart.

particular realization of an underlying universal of *Argument Licensing*, which, in some languages, can be dependent on features other than Case (i.e. Person).[96]

5.2 The status of Case in Ojibwe

This section reviews data from Ojibwe that contributes to recent discussion about the status of Case in Algonquian languages (Ritter & Rosen 2005; Ritter & Wiltschko 2004, 2007, 2010, on Inflection; Bruening 2009, on A-movement). I claim, following Ritter & Rosen (2005), that Ojibwe lacks any evidence of Abstract Case since there are no standard A-phenomena resulting from Case motivated A-movement. I mentioned above that some languages show Case in the morphology (e.g. Latin, Sanskrit), but even in the absence of clear case marking, Abstract Case should be evidenced by its syntactic effects, namely by A-movement. I look at Ojibwe and other Algonquian data that could potentially be analyzed by A-positions and A-movement in constructions that appear to involve A-binding, the Passive and Raising predicates. However, all the Ojibwe and Algonquian constructions miss the mark as evidence for Abstract Case because they do not fit into the behaviour of standard A-phenomena. Consideration of all the data constructs a picture of Ojibwe that lacks canonical A-movement, and therefore constitutes no actual evidence of standard Abstract Case.[97]

I discuss the possibility in Ojibwe of morphological case marking, A-binding in, the analysis of the *Unspecified Agent Construction* as a Passive, and *Cross-Clausal Agreement*, which is comparable to Raising Predicates or Exceptional Case Marking. None of the Algonquian constructions fit with standard A-movement (i.e. movement for Case), and there is no objective reason to claim that Case is underlyingly present in these languages.[98]

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[96] Unlike Marantz (1991) I do not dispense with case in the syntactic component, but claim that Case is only one realization of syntactic argument licensing.

[97] Recall from Chapter 3.3 that Bruening (2001, 2005, 2009) argues for A-movement in Passamaquoddy to account for certain scope and variable binding data. I suggested that if Passamaquoddy has A-movement it may be non-canonical, like A-scrambling in Japanese (see Saito 1992). However, Ojibwe does not require such an A-movement analysis and I view Ojibwe as completely lacking A-movement.

[98] Diercks (2011) also claims that Bantu languages lack Abstract Case, discussed in Chapter 8.2.

5.2.1 Morphological case

In languages like Latin and Sanskrit, Case corresponds to morphological marking on DPs, and in English the form of a pronoun changes depending on the Case value it receives. Morphological case, or m-case, suggests the presence of Abstract Case (although it is not conclusive), but there is nothing in Ojibwe that resembles m-case. For example, pronouns have the same form despite their grammatical function (e.g. subject, direct object), seen for *wiin* 'him/her' in (14).[99]

(14) a. Mary miniwinm-aa-n **wiin** (Ojibwe)
Mary like-DIR-OBV him(OBV)
'Mary likes him.'

b. **wiin** miniwinm-aa-n Mary-an
he like-DIR-OBV Mary-OBV
'He likes Mary.

c. n-gii-miin-aa emkwanes **wiin**
1-pst-give-DIR spoon him
'I gave a spoon to him.'

Ojibwe does show obviation marking on DPs (introduced in Chapter 3.3.3) that indicates relative foregrounding or backgrounding between multiple animate 3rd persons. Shown in (15) with two animate 3rd person arguments, one must be marked as obviative with the suffix *–(a)n*, and this marking also appears on the verb stem. However, obviation is unlike case marking because it indicates a relative background versus foreground relationship between arguments and is not tied to grammatical function (or to a Case assigner). For example, the subject *Mary* is proximate (unmarked) in (15)a, but obviative in (15)b without a change of grammatical function.

[99] Overt pronouns are usually only used to indicate focus, but even when overt, their form does not change depending on grammatical function.

(15) a. Mary waabm-aa-n John-an
Mary see-DIR(NL)-OBV John-OBV
'Mary sees John.'

b. Mary-an waabm-igo-n John
Mary-OBV see-INV(NL)-OBV John
'Mary sees John'

Obviation marking on DPs and pronoun forms do not relate to A-positions, grammatical function, or some Case value. There is no clear relationship between Ojibwe morphology and Case relations, therefore, we cannot take any clues from the surface morphology about the status of Case in Ojibwe. The following sections investigate constructions that have potential for syntactically identifying Abstract Case by relating to A-positions and A-movement and show that the lack of m-case is not coincidental in Ojibwe.

5.2.2 Reflexives/Reciprocals: A-binding?

Reflexives and reciprocals relate to Abstract Case in their requirement to be properly bound from A-positions. A-binding is encoded in the definition of an A-chain, seen in (7) and (8), and Principle A of Binding Theory states that an anaphor must be bound within its binding domain. However, Ritter & Rosen (2005) assert that A-positions cannot be relevant for reflexives and reciprocals in Algonquian since these languages encode binding relationships on the verb and do not have anaphoric elements occupying A-positions. For example, Blackfoot indexes a reflexive with the verbal suffix *–o:hsi*, seen in (16). The transitive verbs 'shoot' and 'see', in (a) and (b) respectively, are converted into intransitives with a reflexive meaning.

(16) a. i-sskonákat-o:hsi-wa (Blackfoot)
PST-shoot(TA)-REFL(IA)-3s
'He shot himself.'

b. nit-á-Ino-o:hsi-hpinnaan
1-DUR-see(TA)-REFL(IA)-1pl
'We(exclu) see ourselves.' (Frantz 1991:107)

The same situation is found in Ojibwe. The suffix /-idizo/ signals the reflexive, as in (17)a, and /-idi/ is used for reciprocals, realized as *–d* in (17)b.

(17) a. Pii yaabn-**dizo**-d gii-nbog-ba
when see-REFL-3 PST-die-PDUB
'When he saw himself he must have died.'

b. Aapji dash gii-zaagh-aa-n maaba shkinwe nonda sa
very part PST-love-DIR-OBV this new.man he part
kwe-wan pii gaa-wiidgen-**d**-waa-d
woman-OBV when wh.PST-marry-RECIP-pl-3
'This young man very much loved this woman when they married (each other).' (Valentine 2001:695,6)

There is, then, no evidence for A-positions from Principle A/A-binding from anaphors in Ojibwe. Ritter & Rosen (2005:657-8) suggest that Algonquian languages might operate under Reinhart & Reuland's (1993) analysis, where reflexivization is a lexical process that absorbs a verb's theta-role. They claim this view is supported by Frantz's (1978) observation that in Blackfoot only clausal co-arguments can be encoded by reflexive morphology, and the syntactic movement of an embedded argument to agree with a matrix verb (discussed below) cannot feed reflexivization.[100] Next I continue the discussion of A-phenomena in Ojibwe with a construction that is similar to the Passive, the Passive being analyzed as A-movement of an object to subject position for Case in languages like English.

5.2.3 The Unspecified Agent Construction: Passive?

The Passive construction is commonly discussed with respect to movement for Case and can be found in many unrelated languages. This subsection investigates the possibility of a Passive in Ojibwe, in particular, whether the *Unspecified Agent Construction* (UAC, also called passive, Bloomfield 1957; Rhodes 1991; Valentine 2001) can be analyzed as

[100] Cross-Clausal Agreement is discussed in detail in section 5.2.4, where I adopt the view of Branigan & MacKenzie (2002) that Cross-Clausal Agreement involves the A′-movement of a DP to spec CP of the embedded clause.

an A-phenomenon.[101] I compare the UAC to the Passive and argue that they differ on key properties, namely that the UAC has a syntactically present Agent, although it is relatively unspecified, and that A-movement does not play a role in the derivation of the UAC. I will conclude that although the UAC looks like the Passive at first glance, there is no concrete evidence indicating the UAC is an A-phenomenon.[102]

The passive in English (e.g. (13)b 'The Doctor$_i$ was hit t_i') involves the movement of the underlying object to a surface subject position to receive Case from T (see discussions on the syntactic Passive as A-movement in Belletti 1988; Baker et. al 1989; Baltin 2001). The passive morphology absorbs the theta-role of the external argument as well as the ability of the verb to assign accusative case to its internal argument. In order for the remaining overt Theme argument to satisfy the Case Filter, it undergoes A-movement to spec TP and gets nominative case. The Unspecified Agent Construction in Ojibwe is similar to the Passive because the external argument is unspecified, the morphology of the verb changes, and the only remaining overt argument is the Theme. Consider the Unspecified Agent Constructions in (18), often translated as passives, where the Agent of 'see' is unspecified and the suffix *-o* is added to the verbal stem (compare (18)a with *nwaabmig* 'He sees me.').[103]

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[101] Sometimes the inverse of a transitive animate verb is considered to be a kind of passive in Algonquian languages, since some consider the less specified external argument to signal a passive-like demotion of the Agent (see discussion in Rhodes 1991; Wolfart 1991 for Plains Cree). I discussed the inverse in detail in Chapter 2 and this construction does not resemble a passive whatsoever. Inverse constructions have full transitive agreement and two core arguments – the only indication that they would be passives is the use of the inverse theme-sign in place of the direct theme-sign, which as I argued in Chapter 2, is a morphological reflex. As discussed by Bruening (2001, 2009), there may be syntactic effects of the inverse, but I do not consider these to identify a Passive construction.

[102] This section explores some syntactic implications of the Unspecified Agent Construction in comparison with the Passive derived by Case/A-movement. I return to a more detailed discussion of the morphology of the Unspecified Agent Construction in Chapter 8, which does not bear on the Passive as A-movement discussion given in this section.

[103] The morpheme *–o* glossed as 'X' only occurs in the Unspecified Agent Construction and will be analyzed in Chapter 8.1. I assume *–o* indicates the unspecified external argument. I assume that the construction in (18)b underlyingly has the *–o* suffix seen in (18)a indicating the detransitivization or presence of the unspecified Agent. However, since *–o* appears immediately to the right of the theme-sign

(18) a. n-waabm-igo-o (Ojibwe)
1-see-INV(NL)-X
'I am seen.' ('Someone sees me.')
b. waabm-aa-(o)-w-ag
see-DIR(NL)-X-3-pl
'They are seen.' ('Someone sees them.') (Valentine 2001:272, 287)

The UAC is a detransitive, built on a transitive stem containing a transitive animate theme-sign (e.g. *waabm-igo* 'see-INV(NL)' in (18)a), but also using intransitive morphology outside of the theme-sign, (e.g. *–w* '3rd person' in (18)b[104], see also Dryer 1997 for Plains Cree). I will return to a detailed discussion of the morphology of this construction in Chapter 8.1. What is important is that the use of the transitive theme-signs indicates that the construction is transitive at least up to the *v*P level that houses the theme-sign suffix.

I argue that the UAC is not a Passive because (i) the unspecified Agent is merged as a core argument, and (ii) this construction does not involve any A-movement. First, Agents in the UAC are unspecified but are still syntactically merged, unlike oblique Agents in English passives, e.g. 'The Doctor was hit *by Donna*.' Agents in the UAC can never be replaced or doubled by any overt phrase, seen in (19)a, and the use of an overt Agent is only acceptable in the normal transitive form, seen in (19)b. The unspecified Agent is further animate, indicated by the transitive animate theme-sign and the interpretation of the UAC e.g. 'Someone sees them' in (18)b.[105]

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suffix, it is deleted in the surface phonology of (18)b to resolve vowel hiatus after the long vowel theme-sign suffix.

[104] 3rd person agreement is prefixal in the transitive independent order.

[105] The Ojibwe unspecified Agent may be compared to the French pronoun 'on' used in passive-like constructions: ***On*** *me l'a donné,* '[Someone] gave it to me.'

(19) a. waabm-aa (*Piye-n) (Algonquin)
see-DIR(NL) Peter-OBV
'She is seen (*by Peter).'
b. Piye-n o-waabm-igo-n
Peter-OBV 3-see-INV(NL)-OBV
'Peter sees her.' (P.D., A.S., J.T. April 29, 2012)

Unlike the Passive construction, the UAC is transitive and introduces two arguments, meaning the arguments need to be syntactically licensed (i.e. subject to the Case Filter). If one accepts that the Agent is merged in the syntax, then the UAC as a Passive predicts a violation of the Case Filter because accusative Case would be absorbed, but there are two arguments needing a Case value and only one Case available.

Second, the Passive is an indicator of Abstract Case in the A-movement of the Theme to surface subject position in order to receive Case from T. I argue that the UAC does not trigger A-movement of the Theme. Consider the "raising-to-object" data in (20) (also known as *Cross-Clausal Agreement*, discussed in detail in the following subsection) from the Ottawa dialect of Ojibwe where raising of an embedded argument to a matrix clause is restricted to topics (e.g. 1st or 2nd persons, proximate 3rd persons). (20)a,b show that either an embedded internal or external argument can raise and agree with the matrix verb, and (20)c indicates that the specified Theme under an unspecified Agent can also raise. Ritter & Rosen (2005) discuss the same situation for Plains Cree (Dahlstrom 1991; Dryer 1997).[106]

[106] The bolded words indicate the arguments undergoing Cross-Clausal Agreement in examples like (20). Bruening (2001:282) notes that the kind of argument that undergoes CCA is vaguely defined – often it is a topic, but a focus element like a wh-phrase can also under Cross-clausal Agreement. Either way, CCA denotes a notion of "aboutness". However, see Bliss (2009) who investigates the potential for different functions of CCA across Algonquian languages.

(20) a. ni-giken-im-aa-ag aniniw-ag gii-baashkizw-aa-waa-d
1-know-TRANS-DIR(NL)-3pl man-pl PST-shoot-DIR-3pl-3
Maagii-an
Marge-OBV
'I know that the men shot Marge.' ('I know **them/the men** that shot Marge.')

b. ni-giken-im-aa Maagii gii-baashkizw-igo-d aniniw-an
1-know- TRANS-DIR(NL) Marge PST-shoot-INV-3 men-OBV
'I know that the men shot Marge.' ('I know **her/Marge** that the men shot.')

c. ni-giken-im-aa gii-baashkizw-in-d
1-know- TRANS-DIR(NL) PST-shoot-X-3
'I know that he was shot.' ('I know **him** that was shot.')
(Ottawa; Rhodes 1994:438-9)

The ability of the Theme in a UAC clause in (20)c to raise or agree with the matrix clause is not an indication of A-movement since raising-to-object in Ojibwe does not restrict raising based on highest A-position, as it does with Raising and the Passive in a language like English. In (21)b it is impossible to raise the embedded object over the subject, but when the object *Mickey* is promoted by the embedded Passive in (21)c, it can raise. There is no parallel contrasts in grammaticality between (20)b and c.

(21) a. He_i seems t_i to have shot Mickey. (Compare: It seems he had shot Mickey.)
b. * $Mickey_i$ seems he to have shot t_i.
c. $Mickey_i$ seems t_i to have been shot t_i (by him).

There is no evidence for a Passive construction in Ojibwe, despite functional similarities between an English Passive and the Unspecified Agent Construction. Next, I further discuss the Cross-Clausal Agreement, or raising-to-object, constructions introduced in (20).

5.2.4 Cross-clausal Agreement: A vs. A'-relation

In this subsection I discuss the phenomenon of *Cross-clausal Agreement* (CCA), also labeled raising-to-object (as in the previous subsection), which is comparable to the Case

related A-phenomena of Raising Predicates or Exceptional Case marking (ECM, see Postal 1974; Kayne 1981, for example). Cross-clausal Agreement refers to a matrix verb agreeing (in person and number) with an argument originating in an embedded clause. The embedded argument triggering matrix agreement is generally a topic and becomes foregrounded by CCA. In this subsection I compare CCA to the A-related phenomena of Raising and ECM (discussed in Branigan & MacKenzie 2002) to show that CCA cannot also be analyzed by A-movement or relating to the Case Filter. I will conclude that although CCA is similar to a set of A-phenomena on the surface (like the Unspecified Agent Construction is similar to the Passive), CCA is not itself motivated by Case and again does not signal the presence of Abstract Case in Ojibwe and other Algonquian languages (e.g. Innu-aimûn). The investigation of Ojibwe constructions that are similar to canonical A-phenomena or Case assignment shows a mismatch between Ojibwe and what evidence can be expected of Abstract Case. In the absence of evidence for Abstract Case, the null hypothesis is that Ojibwe should be analyzed apart from Case.

First I will present the basic properties of CCA in Ojibwe and discuss how it is unlike the A-phenomena of ECM and Raising: CCA is optional, topic-related, is not restricted to the highest DP, and does not feed A-relations, such as reflexivization. Then I turn to the discussion of Branigan & MacKenzie (2002) who argue that CCA is a reflex of A′-movement of a DP to spec CP, further indicating that CCA is not related to Case.

The data in (22) illustrate CCA in the Algonquin dialect of Ojibwe: (22)a is the regular non-CCA construction with the matrix verb 'know' that takes a clausal complement and is marked by an animate intransitive theme-sign. (22)b shows the CCA of the embedded subject 'you' which triggers 2nd person agreement on the matrix clause, seen in the 2nd person proclitic. 2nd person agreement is also shown in the theme-sign suffix which has been altered from the animate intransitive form in (a) to the transitive animate local inverse *–in*, indicating a 1st person subject and 2nd person object. (22)c shows the CCA of the embedded object 'him', which also triggers the use of a transitive animate theme-sign on the matrix verb, this time it is *–aa* the non-local direct reflecting the 1st person subject with a 3rd person object. As (22) shows, the CCA of an embedded argument causes it to agree as if it were the internal argument of the matrix clause, even

altering the form of the verb from the intransitive in (22)a to a transitive animate stem in (22)b,c.[107]

(22) a. ni-giken-dan gii-bashkizw-aadj (Algonquin)
1-know-VAI PST-shoot-2subj
'I know that you shot him.'

b. gi-giken-im-in gii-bashkizw-aadj
2-know-TRANS-INV(L) PST-shoot-2subj
'I know that **you** shot him.'

c. ni-giken-im-aa gii-bashkizw-aadj
1-know-TRANS-DIR(NL) PST-shoot-2subj
'I know that you shot **him**.' (P.D, A.S. & J.T. 4/29/2012)

Branigan & MacKenzie (2002), who look at comparable data in Innu-aimûn, argue that CCA is derived by A′-movement of an argument to the edge of the embedded clause where it becomes visible for agreement with the matrix verb. Similar views are found in Bruening (2001) for Passamaquoddy[108] and Ritter & Rosen (2005) for Blackfoot.

[107] The arguments that can undergo CCA vary somewhat between Ojibwe dialects and Algonquian languages. Rhodes (1994) discusses data from the Ottawa dialect of Ojibwe, which can Cross-Clausally Agree with topic-like arguments like in Algonquin in (22)b, but cannot trigger CCA with a lower argument over another topic. For example in (i), an obviative embedded argument cannot be under CCA over a proximate DP.

(i) a. *ni-giken-im-aa Maagii-yan gii-baashkizw-aa-waa-d aniniw-ag (Ottawa)
1-know-TRANS-DIR(NL) Marge-OBV PST-shoot-DIR-3pl-3subj man-pl
'I know that the men shot Marge.' ('I know **her** (Marge) that the men shot.')

b. *ni-giken-im-aa-g aniniw-an gii-baashkizw-igo-d Maagii
1-know-TRANS-DIR(NL)-3pl man-OBV PST-shoot-INV-3subj Marge
'I know that the men shot Marge.' ('I know **them** (the men) that shot Marge.')
(Rhodes 1994:438-9)

[108] Bruening (2001) claims that CCA in Passamaquoddy has a structural difference dependent on whether a raised argument triggers direct or inverse in the matrix clause. He shows that the raised element triggering the direct must obey islands (i), but the inverse trigger does not (ii). Instead, the inverse trigger appears to

Branigan & MacKenzie (2002) also argue that analyzing CCA as an A-phenomenon, in particular as Exceptional Case marking, is incorrect.[109] CCA in some Algonquian

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merge its CCA argument in the upper clause and it can be (covertly) doubled by an element in the lower clause (not found with the direct trigger).

(i) a. Ma=te n-wewitahatom-uw-on [$_{CP}$ Susehp kisi-qecimul-osk [$_{CP}$ keqsey
NEG=EMPH 1-remember.TI-NEG-N Susehp PERF-ask-2conj.INV what
kisi-htu-htit skitapiy-ik]]
PERF-make-3pl.conj man-3pl
'I don't remember if Susehp asked you what the men made.'

b.* Ma=te n-wewitaham-**a**-wiy-ik Susehp kisi-qecimul-osk [$_{CP}$ keq
NEG=EMPH 1-remember.TA-**DIR**-NEG-3PL Susehp PERF-ask-2conj.INV what
kisi-htu-htit skitapiy-ik]
PERF-make-3pl.conj man-3pl
'I don't remember (about them) if Susehp asked you what the men made.'
(Passamaquoddy; Bruening 2001:266-7)

(ii) Petak ma=te '-kosiciy-**uku**-wiy-il witapih-il (eli) nucitqonket nemiht-aq
Petak NEG=EMPH 3-know.TA-**INV**-NEG-OBV 3.friend-OBV C policeman wh.see.TI-3conj
[$_{CP}$ keqsey kisi-komutonato-k]
what PERF-steal-3conj
'His friend doesn't know (about Petak) if the police saw what he stole.'
(Passamaquoddy; Bruening 2001:276)

I cannot confirm whether CCA in Ojibwe reacts to islands like it does in Passamaquoddy. However, it should be noted that all the examples of the inverse that trigger a high based generated CCA element involve bound possessed DPs, like 'his friend' in (ii) (see examples in Bruening 2001:275-6) which require the repetition of "raised" argument, meaning it does not move out of the lower clause. Regardless of these complications, I will assume that in CCA in general is derived via A′-movement of the embedded argument to spec CP (as is needed for (i)), following Branigan & MacKenzie (2002), but that the high base generation option is also available under specific circumstances.

[109] Branigan & MacKenzie (2002) also reject the possibility that CCA involves a *prothetic object*. For example, they argue that prothetic objects can freely refer to DPs within complex or conjoined DPs (i)a, CCA cannot (i)b. See Branigan & MacKenzie (2002) for full discussion and other indications against the prothetic object approach.

languages is similar to ECM or Raising constructions because it shows the interaction of an embedded argument with the matrix clause by agreement or movement. If CCA were analyzed as ECM then the agreement of the embedded argument with the matrix verb would reflect Case assignment (e.g. [$_{CP}$ Jack believes –ACC> [$_{TP}$ **her** to be missing]]), and if CCA were analyzed as Raising the embedded argument would undergo A-movement and get a Case value within the matrix clause (e.g. [He$_i$ seems [t_i to have shot Mickey]]). If CCA can be characterized in terms of ECM or Raising, then there would be some indication of Abstract Case and sensitivity to the Case Filter in Ojibwe and other Algonquian languages. However, there are two main properties of CCA in Ojibwe that diverge from the behaviour of ECM and Raising, and show CCA to be unrelated to Case assignment: (i) CCA does not always target the subject (highest argument), but can optionally target the object; and (ii) the raising DP is fully licensed in the lower clause, whose agreement does not change. Next I lay out the arguments against CCA as ECM or involving a Raising Predicate, asserting that CCA exhibits no Case motivated movement or Exceptional Case marking to satisfy the Case Filter.

First, ECM and Raising can only affect the (surface) subject of an embedded clause (see (21) for Raising), but the Algonquin data in (22) show CCA optionally targeting either the subject or object of the embedded clause. Unlike ECM and Raising, CCA is not controlled by the structural hierarchy of arguments but is optional and has a discourse function of picking out a *topic* or denoting "aboutness" (see fn. 106). The optionality of CCA is apparent in (22) where there is no difference in grammaticality between the non-CCA construction in (a) or the CCA versions in (b) and (c). Optionality is unexpected if CCA relates to Case assignment because Case is obligatorily assigned as per the Case Filter. The matrix verb in ECM must assign Case to the embedded subject, and a raised

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(i) a. I said of Tanya$_i$ that [she$_i$ and you] would work well together.

b. *N-uî-tshissenim-**âu** tân ishpish [**Pûn** mâk tshîn] tshi-nitshipêtûtâu (Innu-aîmun)
1-want-know-3 when Paul and you 2-stopped
Intended: 'I want to know when **Paul** and you stopped.'
(Branigan & MacKenzie 2002:392-3)

Further, (28) shows obligatory CCA with a DP wh-element in embedded spec CP, suggesting that there need not be any special operation or element in the structure triggering CCA but that it can arise when a DP is sufficiently local to agree with the matrix verb.

embedded subject in a Raising construction gets Case in the matrix clause. If these relationships are not instantiated, the Case Filter is violated.

Second, ECM and Raising constructions are found with non-finite embedded clauses which have a defective T that cannot assign nominative case and license a subject. However, CCA occurs with inflected embedded clauses, shown in (22) with the tensed embedded verbs, marked by *gii-* 'past'.[110] This is an important difference since the use of Exceptional Case marking or raising an argument to a matrix clause is required because the embedded clause is non-finite, unable to assign Case to its subject, and without ECM or Raising the Case Filter would be violated. Change in the inflection of the embedded clause is shown in (23) and (24). (23)a shows *believe* assigning accusative case to subject of the non-finite clause *him*, but in (23)b there is no ECM when the embedded clause is finite. Similarly, (24)a illustrates the raising of the embedded subject from the non-finite clause to get nominative from matrix T, but in (24)b there is no raising since the tensed embedded clause can now license its subject.

(23) a. I believe [**him** to be smart].
b. I believe [that he is smart].

(24) a. He appears [t_i to be smart].
b. It appears [that he is smart].

There is no finite/non-finite alternation with the embedded CCA clauses (22), and CCA arguments are already fully licensed in the embedded clauses. For example, the embedded verbs in (22)b show agreement with the 2nd person argument *–aadj* '2nd subject (conjunct)', whether it also agrees with the matrix verb, e.g. *gi-* '2nd person', or not (see (22)a). The CCA phenomenon cannot relate to Case assignment because it is optional and does not change the licensing of arguments, which are properly licensed whether they undergo CCA or not. Now that I have established that there is no clear connection between CCA and Case assignment or A-movement, I look at how CCA might be analyzed as an A′-construction.

[110] Ojibwe does not have non-finite clauses (Valentine 2001:648).

Branigan & MacKenzie (2002) argue that CCA results from the A′-movement of the agreeing embedded argument to a high A′-position, in particular spec CP. Branigan & MacKenzie claim that the landing site of CCA movement is not an A-position (i.e. spec TP) because it cannot feed A-binding relations such as reflexivization (25), which must involve underlying co-arguments in Algonquian (see Bruening 2001:273 for Passamaquoddy; Frantz 1978:94 for Blackfoot). Although CCA arguments are generally clause bound, they can appear high in the structure of the embedded clause, for example, to the left of a complementizer in (26) for Passamaquoddy.

(25) *g-nandwenm-idiz na [da-miij-yan]?
2-want-REFL Q FUT-eat-2subj
'Do you want to eat it?' ('Do you want **yourself** to eat it?')
(Valentine 2001:684)

(26) N-kosiciy-a wot skitap **eli** toli-nomiy-uti-yeq (Passamaquoddy)
1-know.TA-DIR this man C there-see-RECIP-2conj
(kiluwaw) Utoqehki-k
(2) Grand.Lake.Stream-LOC
'I know about this man that you and he saw each other at Grand Lake Stream.'
(Bruening 2001:269)

Branigan & MacKenzie (2002) claim that a CCA argument moves to spec CP where it becomes visible to matrix agreement. Under their view, these languages must allow multiple specifiers of CP (Richards 1997) since CCA can occur across a wh-element, seen in (27)b with the CCA of *Mary* across *awegonen* 'why' in Algonquin.

(27) a. ni-giken-dan awegonen kawenjemaadj-aadj Mary (Algonquin)
1-know-VAI why leave-3conj Mary
'I know why Mary left.'

b. ni-giken-im-aa awegonen kawenjemaadj-aadj Mary
1-know-TRANS-DIR(NL) why leave-3conj Mary
'I know why **Mary** left.' (P.D, A.S. & J.T. 4/30/2012)

Interestingly, in Algonquin when there is a DP wh-element in spec CP of the embedded clause, CCA becomes obligatory. (28)a shows CCA with the wh-element *awinin* 'who', but the non-CCA version in (28)b is ungrammatical when the animate intransitive form of the matrix verb is used. Data like (28) suggest that CCA is truly a case of A′-agreement where the verb can agree with a visible DP in its complement, whether that is an object, a CCA argument, or an argument that has raised for other reasons (i.e. wh-movement). Further, this data indicates that special movement (or even, the use of a prothetic object or prolepsis) is not required to trigger CCA since it can, and must, be fed by wh-movement.

(28) a. ni-giken-im-aa awinin menowenom-aadj Mary
1-know-TRANS-DIR(NL) who like-3conj Mary
'I know **who** likes Mary.'
b. *ni-giken-dan winin menowenom-aadj Mary
1-know-VAI who like-3conj Mary
'I know who likes Mary.' (Algonquin; P.D, A.S. & J.T. 4/29/2012)

Following Branigan & MacKenzie (2002), I assume that CCA in Ojibwe and related Algonquian languages is an A′-relation (also stated by Bruening 2001 and Ritter & Rosen 2005) that makes embedded arguments visible to matrix agreement. The behaviour of CCA does not suggest that there is any involvement of movement for Case or sensitivity to A-positions, as the CCA with wh-elements in spec CP shows in (28).

In examining Cross-Clausal Agreement, we again find a striking lack of evidence for Abstract Case. CCA is not triggered by a need to satisfy the Case filter nor is it obligatory (unlike ECM or Raising), and appears to involve agreement with arguments in non-A-positions, like the A′-position spec CP. It is interesting to see that the CCA of an embedded argument triggers agreement that is identical to the agreement with a matrix internal argument. For example CCA in (29)a with a 1st person subject and 2nd person

raised argument is identical to the transitive animate agreement on the verb in (29)b with a 1st person subject and 2nd person object.

(29) a. gi-giken-im-ini gii-baashkizw-ad
2-know-TRANS-INV(L) pst-shoot-2subj
'I know that you shot him.' (I know **you** that shot him.') (Rhodes 1994:438)

b. g-waab-m-in(i)
2-see-TRANS-INV(L)
'I see you.' (Valentine 2001:272)

The kinds of constructions in Ojibwe and Algonquian languages that might be analyzed as Case motivated, either by movement or the satisfaction of the Case Filter, are not properly analyzed as A-phenomena when closely considered. CCA adds to the list of constructions in Ojibwe that are similar to A-phenomena, but in fact do not show any evidence for Abstract Case. The Ojibwe data does not reasonably assume the existence of Abstract Case, and there are no other constructions that show the movement or restriction of arguments strictly by Standard Case.[111] I argue that it must be assumed that Ojibwe (and possibly Algonquian) lacks Standard Case.

5.2.5 Section summary

I have presented several different types of data from Ojibwe and some related Algonquian languages, comparing constructions that resemble A-phenomena with canonical versions of these phenomena in well-understood Case languages, such as English. In the absence of reliable m-case we must turn to evidence of Abstract Case in the syntax, particularly A-relations dependent on A/Case-positions and movement triggered to satisfy the Case Filter. I have considered all standard A-phenomena that can potentially indicate Abstract Case, namely A-binding, the Passive, Exceptional Case Marking and Raising Predicates, coming to the conclusion that the parallel constructions in Ojibwe do not quite line up with them. Every construction that looks similar to a Case construction proves to not

[111] For example, Ojibwe does not have non-finite clauses that require the subject of a non-finite clause to be Case licensed in another clause.

involve A-movement or A-positions, or crucially involves kinds of A′-relations. All this adds up to say that there is no evidence of Abstract Case in Ojibwe (and in other Algonquian languages, as claimed by Ritter & Rosen 2005).

There are two ways to interpret this lack of evidence for Abstract Case. For one, Case might be so abstract in Ojibwe that it is never realized in familiar A-phenomena, but this view is not falsifiable and provides no insight into the underlying mechanisms governing arguments in Ojibwe. For another, it may be that Ojibwe does not have Abstract Case, specifically not the kind of Abstract Case that is active in languages like English. Following the trend of the evidence above, I opt for the second view – that Ojibwe does not have Abstract Case in the traditional sense. Instead I wish to abstract away from Case and consider what underlies the system of DP licensing, which will enable a view of Ojibwe as obeying the spirit of Case, namely that all arguments must be properly licensed (i.e. a version of the Case Filter), but realized differently from Case. I posit next that Case is subject to an underlying universal of *Argument Licensing*, and further that this universal can be realized by *Person Licensing* in addition to Case.

5.3 The universal of Argument Licensing

Section 5.2 reviewed possible evidence for Abstract Case in Ojibwe, determining that there is no indication of Case motivated phenomena in that language. With the apparent lack of Abstract Case in a language, the pressing question is what are the underlying mechanics and restrictions that control the distribution of DP arguments? Languages semantically restrict arguments by thematic relations with their predicates, but Case is needed to control the syntactic distribution of arguments. I am arguing that although Case itself may not be universal, the notion of the Case Filter – that arguments must be syntactically licensed – is universal, but not tied directly to Standard Case. I will propose in the following Chapter that Ojibwe (and possibly other Algonquian languages) show a need to strictly license their arguments by their Person features in the syntax.

The main point of Part Two is that although there appear to be issues in applying Case Theory directly to certain languages (i.e. Ojibwe), the spirit of Case Licensing remains. That is, there is a pervasive notion that I label *Argument Licensing* in (30) that is often treated as different incarnations of Case in the literature. Taking a step back from

Case, I want to propose that *Argument Licensing* is the underlying universal and is not dependent on Case, but rather can be realized as Case and can also be realized in other ways, for instance as Person Licensing.[112]

(30) **Argument Licensing**

A DP bearing a (certain type of) feature (or feature complex), [β], must enter into an Agree relation with a head bearing an unvalued feature [uβ].

Argument Licensing in (30) is essentially the Case Filter generalized to be non-specific to Case. Languages relativize DP licensing by the content of [β]. As per Chomsky (1993; Early Minimalism), Case assignment is the licensing of a [D] feature so that a DP argument is assigned Case when it Agrees with a head (i.e. Case assigners like T, *v*, P) bearing an uninterpretable [uCase] probe. Within my view, languages subject to Case Licensing are realizing Argument Licensing, where [β]=[D]. Henceforth, the term *licensor* will refer to an argument licensor, defined in (31).

(31) **Licensor**: A head bearing an uninterpretable feature [uβ] that can enter into an Agree relation with a matching feature on a goal (DP).

I propose that there are possibilities for the content of [β] other than [D]/[uCase], principally that Argument Licensing can be relativized in terms of Person features, so that for a language like Ojibwe, [β] will be equal to [π]. The types of features that can fill in

[112] One might suppose that Person is part of the A′-system, showing a close relation to discourse factors (e.g. topic, Point of view, Ritter & Rosen 2005), in contrast to Case in the A-system. Another view is outlined by Ritter & Wiltschko (2004, 2007, 2010) (see Chapter 6.1.3) where Inflection can be realized as Person instead of Tense. I do not consider Person Licensing to be a fully A′-phenomenon, as I claim arguments are licensed in their merge positions, but independently motivated A′-movement can interact with Person Agree. I further use different mechanics and details from Ritter & Wiltschko since I argue that Case and Person are not in complementary distribution (relating to Inflection as Tense and Person respectively) but can co-occur in languages (e.g. French, Italian, Spanish). I claim that the view of Argument Licensing I propose here best fits the data from Ojibwe, connects Ojibwe to other languages with Person Restrictions, and explains the differing bundles of properties found with Case and Person Licensing.

the content of [β] are features directly associated with arguments, like Case and phi-features like Person. I further explore the possible realizations of Argument Licensing in Chapter 8.2, where I suggest that [β] can be filled with another type of phi-feature, Class, in Bantu, and I look at the role of Aspect in Argument Licensing, arguably as part of Case. However, the exact restrictions on what types of feature can fill in [β] are not yet fully clear and should be investigated in further research.

In Chapter 6 and Chapter 7 I discuss the properties of Case and Person as mechanisms to syntactically license and restrict DP arguments. However, it is important that these arguments must also be selected and theta-licensed at the semantic level (32). Whatever the requirements or flexibilities of Case and Person Licensing might be, they cannot violate theta-marking, which also poses restrictions on DP arguments.

(32) **Theta Criterion**: Each argument bears one and only one theta-role, and each theta-role is assigned to one and only one argument.
(Chomsky 1981:36)

I claim that there is a specific bundle of properties that occur with Person Licensing in contrast to the bundle of properties we find in Case Licensing. I suggest that this distinct behaviour between the types of Argument Licensing is due to the different nature of the licensing features – the content of [β].

5.4 Chapter Summary

In this Chapter I have questioned whether Standard Case theory should be considered universal. Views on the workings of Case have taken on different forms in the literature and have been extended to account for data in a variety of languages. However, I argue that if Abstract Case is identified by its effects rather than as a universal, a language like Ojibwe shows no evidence that it is subject to the mechanics of Case.[113] The important point is that Ojibwe, and other Algonquian languages, cannot be considered canonical

[113] If a different view of Case is adopted, in particular that A-movement is triggered by EPP features and is not directly tied to Case, then no insight is gained in Ojibwe, which shows no other clear evidence that Case is active.

Case languages, and the lack of evidence for Abstract Case indicates that they involve no Case at all.

Although I argue that Standard Case is not universal, I accept that the underlying principle of Case should be considered universal. This universal I label *Argument Licensing*, which is similar to the Case Filter, but generalized so that it is not obligatorily satisfied by Case. The work of Case is to syntactically license DP arguments, and I claim that it is not Case alone that can do this work in a language. The following Chapter investigates *Person Licensing* as an alternate to Case, which can also satisfy the underlying universal of Argument Licensing. I argue that Person Licensing is not a specific realization of Case since Person corresponds to a bundle of properties distinct from those associated with Case, and that Person can be responsible for the syntactic licensing of arguments in a caseless language like Ojibwe. Appealing to Argument Licensing as a universal instead of Case may allow for better characterizations of certain languages and provide insight into the deeper connections between languages that appear drastically different on the surface.

Chapter 6 Person Licensing

I have so far argued that Ojibwe, and possibly Algonquian languages in general, do not have evidence for Abstract Case because they lack any phenomena that can be directly tied to movement for Case or satisfaction of the Case Filter. Although Ojibwe does not have Case, I argue that it must still syntactically license its arguments to satisfy Argument Licensing in (30), but that this function is fulfilled by the checking of Person features instead of the valuation of Case. This Chapter introduces a formal notion of *Person Licensing* that can control the syntactic distribution of arguments in the absence of (or in addition to) Case Licensing. I argue that Person and Case should be considered independently as they exhibit different bundles of properties, but they share the same function of Argument Licensing.

I claim that the characteristics of each type of licensing are based on the kind of feature used to license an argument, namely the content of [β] in Argument Licensing (see (30) in Chapter 5.3). I look at Case as licensing and valuing [uCase] associated with a [D] feature on an argument by an appropriate Agree relation (see Chomsky 1993), while Person Licensing is instead relativized to [π] features. [D] and [π] are two very different types of features even though both relate directly to arguments, and I propose that the properties of Case and Person Licensing differ because of the nature of the features they are relativized to. [D] is a categorial feature that is simplex while [π] is a complex set of features related by entailment, but bound under the basic [π] feature. Further, the heads that can license [D] or [π] features need not be the same, and in fact I will argue that *v* is the locus of Person Licensing apart from T, which is a [D] licensor. I propose that the universal formulation of Argument Licensing remains constant, but that the syntactic realization can differ, discussed here for Case and Person, dependent on the character of each possible type of [β] feature.

Section 6.1 discusses certain views of person agreement and licensing, as a mechanism at the phonological interface rather than the narrow syntax (e.g. Bobaljik 2008), as tied to Case licensing (i.e. phi-agreement, Chomsky 2000), and as the potential content of the Inflectional head of a language (Ritter & Wiltschko 2004, 2007, 2010). I discuss these views, arguing that Person has a place in the syntax, although certain

aspects of person agreement relate to directly morphological factors, and that Person is not tied directly to Case valuation in all languages. My view is that Person can do real work in the syntax in terms of controlling the distribution of arguments, which relates to the work of Ritter & Wiltschko who take seriously the syntactic relevance of Person in certain languages, in particular Blackfoot.

Section 6.2 lays out some properties I argue relate to Person Licensing but that are not typically shared in the behaviour of Case Licensing. I argue that Person is flexible in how many licensors and arguments may associate with one another, while Case is a one-to-one relationship. I also indicate that while in a Case Licensing language all DPs must get Case since it relates to their [D] feature, Person Licensing does not require the licensing of an argument lacking π-features. I claim that the properties of Person Licensing relate to the fact that π-features are complex (i.e. a set related by entailment) and interpretable or valued. Case features, here viewed as [D] or [uCase], are conversely simplex and unvalued, and therefore show different sets of properties in the syntax.

In the final section 6.3, I look at evidence from Basque to show that Person Licensing and its bundle of properties can be found robustly outside the Algonquian family. Basque has been argued to involve a complex π-probe on *v* (Béjar & Rezac 2009), as evidenced by the phenomenon of *ergative displacement*, and indicates the multiple Person Licensing of arguments in *irudi* verb constructions that resemble Raising Predicates. Basque also has Person Restrictions, which are evidence of the Person Licensing version of the Case Filter, namely that the lack of appropriate Person Licensing causes ungrammaticality. Person Licensing is robust and distinctive in its behaviour, and the distribution of arguments in certain languages is more elegantly explained by Person than by Case.

6.1 Views on Person Licensing

Before turning to the properties I propose are specific to Person Licensing, I consider some views of person and how it interacts with the morphological or syntactic components of the grammar. First I consider the view that person agreement should be relegated to the phonological interface and does not bear on syntactic operations, arguing that at least in some languages Person plays an important role in the syntax. Then I

consider the notion that phi-agreement is tied to the valuation of Case as proposed by Chomsky (2000), which relates to subject agreement in a language like English. I argue that Person Agree is not universally dependent on Case valuation, but that π-agreement is often derived separate from Case. Finally, I look at recent work by Ritter & Wiltschko (2004, 2007, 2010), who argue that Person can replace Tense as the content of the Inflectional head in a language. They argue that Person (and Location), like Tense, can anchor an utterance, and I follow in their view that Person can be deeply embedded in the syntactic structure rather than just a reflex of surface agreement or Case valuation.

6.1.1 Person at PF

The concept of morphological agreement is closely tied to person or phi (e.g. person, number, gender), and is a tool to identify the underlying Person Licensing mechanism. But like overt case marking, the usefulness of π-agreement seen in the morphology varies from language to language, and sometimes from construction to construction. I consider Bobaljik (2008) who suggests that person agreement should be relegated to PF without real status in the narrow syntax. Here I want to make it clear that there is an important distinction between the syntactic Agree based on Person and general person agreement found in the surface form. I maintain that the kind of Person Licensing I am interested in is a syntactic process, and it can feed person morphology, as I claim it does in the Ojibwe theme-sign suffixes of the Inverse System. However, there are other types of surface person agreement that may be sensitive to surface conditions, but not all person should be relegated to the phonological interface and Person Agree can interact with the syntactic derivation.

Bobaljik (2008) argues that phi-agreement is not narrowly syntactic based on his review of several languages, which show that the agreement controller is determined by its morphological case, rather than Abstract or Structural Case. He states that, "[w]hen case and GF[grammatical function] diverge, it is m-case, not GF, that defines accessibility for agreement" (pg. 303). With respect to Icelandic, which famously displays Quirky Case, Bobaljik (2008) indicates that Abstract Case and m-case can mismatch and phi-agreement depends on m-case. The phi-agreement is then a fully PF operation since it is referencing m-case which can encode different grammatical functions of arguments but the syntax itself is not affected by m-case marking (pg. 301).

Although types of phi-agreement may occur at PF in different languages and constructions, they are not the issue under discussion here. I claim that certain languages require the licensing of their arguments by their syntactic π-features and the absence of licensing creates ungrammaticality, exemplified for the 2nd person arguments in (33), akin to the absence of Abstract Case marking in (34). In (33)a *giin* 'you' cannot be licensed in the Theme/direct object position of a Double Object Construction, creating ungrammaticality (discussed as the Strong Person-Case Constraint in Chapter 4). In (33)b the use of an animate intransitive theme-sign suffix signals no π-checking with the internal argument *giin* 'you', and again the construction is ungrammatical because of the lack of π-agreement. This ungrammaticality is parallel to the violation of the Case filter in (34) when *of* is absent, leaving *Donna* without Case (there is no equivalent for *of-insertion* in Ojibwe).

(33) a. * ni-gii-miin-aa giin
1-PST-give- DIR(NL) you
'I gave you to him/her.'

b. * n/g-waabnd-am giin
1/2-see-VAI/VTI you
'I see you.'

(34) Wilfred is proud *(of) Donna.

Sometimes Person Licensing is faithfully relayed in the morphology, similar to situations where a mismatch between m-case and Abstract Case is a non-issue, but even when the morphology clouds the view of the syntax, the evidence of syntactic licensing remains. Fundamentally, the difference between Abstract Case and m-case is paralleled for Person, which has syntactic Person Licensing and surface phi-agreement components.

6.1.2 Phi-Agree and Case

The view of Case found in Chomsky (2000) and other related works is that there is an indivisible relationship between Case and phi-agreement: "All [core functional categories] may have phi-features (obligatory for T, *v*). These are uninterpretable,

constituting the core of the systems of (structural) Case agreement and 'dislocation' (Move)" (Chomsky 2000:102). Chomsky posits that (non-defective) T has a probe with both Case and phi-features, which can enter an Agree relation with only one goal that will trigger the deletion of all the features on the probe. This means any DP that is assigned Case by T will also delete its phi-features, resulting in subject agreement (2000:125).

Although a language like English shows a close relationship between Case assignment and (subject) agreement, the view of phi or person agreement as tied to Case does not extend to all phi-agreement. For one, Chapter 2 provides an analysis of the complex Person Agree that underlies the Ojibwe Inverse System, and in Chapter 5 I have shown that Ojibwe shows no reflex of Case indicating the use of Person Agree in the absence of Case valuation. Here I want to consider some data from Inuit and Warlpiri that show disjunction between Case assignment and person or phi-agreement as analyzed by Bittner & Hale (1996). I take the data from these languages as suggestive that it is not consistently useful to assume phi or person is intrinsically tied to the checking of Case but that Person Agree can be independent of Case.

First consider Case and phi-agreement in Inuit as described and discussed by Bittner & Hale (1996). Looking at the dependent transitive clause in (35)a, the singular subject *Juuna* is marked as ergative by *–p* and shows phi-agreement on the verb *–mi*, analyzed as the realization of T by Bittner & Hale. The dependent clause in (35)b is non-finite, which Bitter & Hale take to have a defective T that they claim can assign ergative Case but, as per Chomsky (1993, 2000), does not have phi-features. The nominative agreement remains the same in (35)a and b, but the ergative phi-agreement is lost and replaced by an infinitive marker *-llu* in (35)b.

(35) a. Juuna-p miiqqat taku-ga-**mi-git** (Inuit)
[Junna-ERG$_i$ children(NOM)$_j$ see-DPST-3SG.PROX$_i$-3PL$_j$]
nuannaar-p-u-q
pro(NOM)$_i$ happy-IND-INTR-3SG$_i$
'Because Junna$_i$ has seen the children, he$_i$'s happy.'

b. Juuna-p miiqqat taku-**llu-git**
[Junna-ERG$_i$ children(NOM)$_j$ see-INF-3PL$_j$] pro(NOM)$_i$
nuannaar-p-u-q
happy-IND-INTR-3SG$_i$
'Seeing the children, Juuna was happy.' (Bittner & Hale 1996:18)

To account for (35)b, Bittner & Hale (1996) have separate systems for phi-agreement and ergative case, rather than phi-agreement dependent on Case.

Second, Warlpiri is another ergative language, showing the pattern in (36) where the transitive object has the same Case marking as the intransitive subject (e.g. *ngaju* 'me (NOM)' in a and c). Phi-agreement follows a different pattern such that subjects (transitive or intransitive) trigger one set of agreement (e.g. *–npa* '2nd singular' subject in (36)a,b) and objects trigger another (e.g. *–ju* '1st singular' object versus *–rna* '1st singular' subject in (36)a and c respectively).

(36) a. Nyuntulu-rlu ka-npa-ju ngaju nya-nyi (Warlpiri)
you-ERG PRES-2SG-1SG me(NOM) see-NPST
'You see me.'
b. Nyuntu ka-npa parnka-mi
you(NOM) PRES-2SG run-NPST
'You are running.'
c. Ngaju ka-rna parnka-mi
me(NOM) PRES-1SG run-NPST
'I am running.' (Bittner & Hale 1996:23)

The marking of case and phi-agreement are distinct, and Bitter & Hale (1996) analyze these types of phi-agreement as separate and non-dependent on Case.

Bittner & Hale (1996) treat case and phi-marking in both Inuit and Warlpiri as separate systems. Although phi-agreement maybe be tightly tied to T and Case assignment (as per Chomsky 2000) in some languages, it is not clear that this connection is robust in other languages. I treat Person Agree as independent of Case in languages that

are subject to Person Licensing, and a language like Ojibwe that appears to undergo Person Licensing in the absence of Abstract Case is a strong indication that Person Agree need not be tied to Case. Next I turn to another view of Person as replacing Tense as the content of the Inflectional head.

6.1.3 The content of Inflection

The treatment of person as purely morphological (e.g. Bobaljik 2008) or dependent on Case (e.g. Chomsky 2000) impoverishes the function of person in the grammar. I argue that such views of person are not correct on a larger scale, although person as morphological or tied to Case has analytic value for certain constructions. Instead I discuss the syntactic mechanism of Person Licensing whereby a language can control the syntactic distribution of its arguments based on Person specification. My view of Person is supported by Ritter & Wiltschko (2004, 2007, 2010, see also Wiltschko 2003) who present an influential view of Person in contrast to Case related syntax.

Ritter & Wiltschko's work is concerned with what the content of the Inflectional (Infl/T) head of a clause is in different languages: it is assumed to be Tense, based on languages like English, but Halkomelem Salish and Blackfoot appear to lack functional Tense. They show Tense to be optional in these languages, shown for Blackfoot in (37) which lacks a tense marker but can be interpreted as past (i) or future (ii).[114] They consider Tense to be adverbial rather than categorial, indicated by the ability of tense markers to co-occur, as in Halkomelem Salish in (38) with both *–lh* 'past' and *–cha* 'future'.[115]

(37) Nit-sspiy-ihpinnaan (Blackfoot)
1-dance-1pl
i) 'We danced.' (cf. Frantz 1991:36(x))
ii) 'We are going to dance.' (Ritter & Wiltschko 2004)

[114] See also Reis Silva & Matthewson 2007 who argue Blackfoot has Tense.

[115] Ritter & Wiltschko (2004, 2007, 2010) also show that tense markers can attach to different hosts in different positions.

(38) í-lh-tsel-cha ímex. (Halkomelem Salish)
aux-PST-1sg.s-FUT walk
'I was going to walk.' (Wiltschko 2003:686)

Ritter & Wiltschko (2004, 2007) propose that the content of Inflection need not always be Tense, but is instead Location in Halkomelem Salish, shown by proximate and distal markers in (39), and Person in Blackfoot (40), an Algonquian language showing a version of the Inverse System. They argue that Location and Person in these respective languages show the properties of Tense in English: they are obligatory, unique in a clause, and interact with C, among other diagnostics.

(39) a. **í** qw'eyílex tú-tl'ò (Halkomelem Salish)
PROX dance he
'He is/was dancing [here]'
b. **lí** qw'eyílex tú-tl'ò
DIST dance he
'He is/was dancing [there].' (Ritter & Wiltschko 2010:8-9)

(40) a. **kit**-ino-o-**hp**-oaawa (Blackfoot)
2-see-1:2-**local**-2PL
'I saw you (PL).'
b. **kit**-ino-oki-**hp**-oaawa
2-see-2:1-**local**-2PL
'You (PL) saw me.' (Ritter & Wiltschko 2010:9)

The Ritter & Wiltschko (2004, 2007, 2010) proposal that the content of Inflection can vary across languages bears both on Case Theory and the grammatical treatment of Person. T is the assigner of subject (nominative) Case, it houses a landing site of A-movement in its specifier, and it stands as central to Case assignment. If the content of this head changes from Tense to another kind of inflection, then nominative might be changed or lost, resulting in different behaviour in the licensing of arguments.

In terms of Person, Ritter & Wiltschko take seriously the work done by Person in the Blackfoot syntax as anchoring the utterance by Speech Act Participants. Although Ojibwe Tense is obligatory and categorial, unlike Blackfoot (see Lochbihler & Mathieu 2008), these languages share their dependence on Person. I take the spirit of Ritter & Wiltschko (2004, 2007, 2010) that moves away from the absolute control of Tense and Case, but I will implement it differently in terms of Person, which I feel resides not solely in the inflectional domain but is instead centrally located in the *v*P argument domain.

I have discussed several views of the role of Person in syntax, namely the perspective that person is a morphological mechanism, that phi-agreement coincides with Case valuation and that Person can act as the content of Inflection (in place of Tense). I take the view that Person is not strictly at the phonological interface, but can play a role in the narrow syntax, and that although phi-agreement, including person, is analyzed as parasitic on Case, this is not the situation for all languages. I further agree with the intuition of Ritter & Wiltschko (2004, 2007, 2010) that Person can be a central component of the syntax, in their view Person can be used to anchor an utterance.

Considering Person as active in the syntax and potentially independent from Case, I turn to the bundle of properties associated with Person Licensing. I claim that while Case Licensing co-occurs with certain behaviour, Person Licensing can be identified by its distinct behaviour, and the understanding of these behaviours as related to Person allows for further analytical understanding of argument distribution cross-linguistically.

6.2 The bundle of properties of Person Licensing

To this point I have argued that it is possible for a language to be caseless, in that it shows no reflexes of Case as I discussed for Ojibwe, and that Person can be active in the narrow syntax and be used to license DP arguments. This section puts forward the notion of Person Licensing in terms of the properties associated with the licensing of an argument by its π-features. The main goal of this Chapter is to recast the syntactic licensing of arguments in terms of Argument Licensing, instead of Case. I propose that Person Licensing is a possible realization of Argument Licensing apart from Case, such that both Case and Person satisfy the same requirement that arguments be licensed by Agree in the syntactic derivation. Chapter 2 discussed in detail the complex person agreement found

on the Ojibwe verb within the Inverse system and in other verbal paradigms. Again I look at the behaviour of Person Agree in Ojibwe, not simply to derive the morphological forms, but also as satisfying the requirement that the π-features on arguments enter Agree relations. Below I list a set of properties found with Person Agree in Ojibwe, but I claim that these properties extend to other languages that require their arguments be Person Licensed, such as Basque, also discussed in Chapter 7.

I claim that the properties of Case and Person are determined by the kinds of features they are dependent on, [D] and [π] respectively. While Case is concerned with a categorial feature that requires a value (i.e. [D, uCase:_], as per Chomsky 1993), Person relates to complex sets of valued, interpretable π-features, related to each other by entailment relations.[116] Case and Person differ because of the features they license and can also differ in terms of which syntactic heads act as licensors of arguments. As I claimed in Chapter 2, little *v* bears a complex π-probe that Agrees with multiple local DP goals, and I claim that *v* is indeed the locus of Person Licensing. The use of *v* as a the central Person licensor (rather than, say, T) will become important in Chapter 7, which reviews Person Restrictions in various languages (e.g. see Chapter 7.2.1 on Spanish). The relevant properties of Case and Person Licensing are illustrated in (41). As indicated by the first two boxes, neither Case nor Person affects the Theta-Criterion, and both are subject to Argument Licensing (30), which states that arguments must be licensed in terms of some feature [β].

[116] The specific formulation of Case features varies. What is important is that Case is a simplex feature, able to receive only one value and is tied to the argumenthood of a nominal, which I assume is achieved by the presence of [D]. One could also assume a KP above the DP structure where Case is assigned. I discuss Case as licensing [D] features, assuming [uCase] is dependent on [D].

(41) **Case vs. Person Licensing**

Properties:	**Case [D]**	**Person [π]**
Theta-Criterion	✓	✓
Licensing [β] obligatory	✓	✓
One DP per licensor	✓	✗
One licensor per DP	✓	✗
All DPs undergo licensing	✓	✗

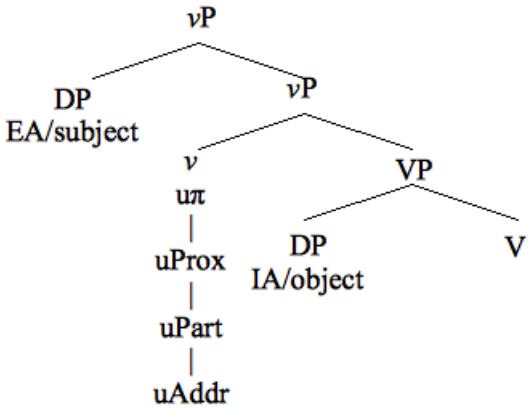
The present discussion considers the properties that divide Case and Person Licensing: a one-to-many or many-to-one relationship between licensors and DP arguments, and whether a DP in certain conditions can grammatically escape licensing. First, Case abides by one DP per licensor (i.e. Case assigning head, such as finite T), but the complex π-probe on *v* can enter an Agree relation with more than one DP. Second, Standard Case theory involves only one Case assigner giving a value to each DP, but I argue that the π-features on DPs can potentially Agree with multiple Person licensors because Person is interpretable and not deleted by valuation. Third, Case licensing strictly applies to all DPs, especially if Case is considered to be the licensing of [D] features (Chomsky 1993), which are necessarily present on every DP. But Person Licensing is relativized to π-features, and it is possible for an argument to be personless (e.g. inanimates in Ojibwe) meaning a DP can remain unlicensed provided no relevant π-features go unlicensed.

I posit little *v* as the locus of Person Licensing and bearing a complex π-probe that can potentially Agree with more than one matching goal, schematized in (42).[117] As introduced in Chapter 2.2, the π-features on *v* are in an entailment relation with the root [π], and [Addressee] (or [2]) is the most highly specified feature that entails all the features between it and the root of the geometry. The features [uπ-uProx-uPart-uAddr] are given the short forms [uπ-u3-u1-u2]. I account for the Person Licensing properties discussed below under the analysis that most arguments are licensed by *v* in situ

[117] As mentioned in section 6.1.3, my view of Person centered on *v* differs from Ritter & Wiltschko (2004, 2007, 2010) who posit Person in the Infl head (in place of Tense in a language like Blackfoot).

(movement is not necessarily tied to a need to be Person licensed) and since *v* bears a set of unvalued features it can potentially Agree with multiple argument goals.

(42) Person Licensing transitive clause argument structure



I adopt little *v* as the core Person licensor following Béjar & Rezac.[118] Additionally, *v* is in the appropriate position to account for the fact that an external and highest internal argument can always be properly licensed since they are both visible to *v*, but the third argument in a ditransitive is not always licensed since it cannot be adjacent to *v* (discussed in Chapter 7.1). Other views of π-agreement posit T or Infl as the relevant licensor, however this view encounters problems because finite and non-finite clauses can show the same Person Restrictions (i.e. Quirky Person Restrictions in Spanish, Rivero 2008), although defective non-finite T would be expected to show more restrictions, being unable to check phi-features. The assumption that *v* is the locus of Person Licensing properly accounts for both complex π-agreement, like in the Ojibwe Inverse System, and for the realization of a variety of Person Restrictions that are the topic of Chapter 7. Considering Person to be complex (seen in (42)) and interpretable on arguments, I turn to the discussion of the Person Licensing properties listed in (41).

[118] Béjar & Rezac (2009) consider Person Agreement or licensing around *v* to be a realization of Case (e.g. 2009:40), however I consider Person to be independent of Standard Case.

6.2.1 One licensor to many arguments

One property that differentiates the behaviour of Case and Person is how many arguments a licensing head can associate with. Within the standard view of Case, there is a one-to-one relationship between a Case assigner and an argument receiving a Case value in the syntax, and a Case licensor can only assign Case to one DP argument. Take the example in (43). (43)a has a Case licensor for each DP: T (present) for *Mickey*; V *believe* for *Rose* (via ECM); and P *inside* for *the Tardis*. The one-to-one relationship between Case assigners and DPs becomes apparent when the arguments remain constant, but a Case assigner is removed. For example, in (43)b the matrix verb is changed to *say* which cannot assign Case to the subject of the embedded clause (i.e. it is not an ECM predicate), and the sentence becomes ungrammatical even though all other elements remain the same.

(43) a. [$_{TP}$ Mickey T [$_{vP}$ believes-V [$_{TP}$ Rose to-T$_{def}$ live [$_{PP}$ inside-P the Tardis]]]].

b. *[$_{TP}$ Mickey T [$_{vP}$ says-V$_{def}$ [$_{TP}$ Rose to-T$_{def}$ live [$_{PP}$ inside the Tardis]]]].

However, Person Licensing is more flexible such that a Person licensor like *v* is able to license the π-features of more than one argument. I claim that the one-to-many licensor-argument relation is found with the Ojibwe theme-signs suffixes, which reflect the π-feature specification of both the internal and external arguments (see complete discussion in Chapter 2). Consider the data in (44): (44)a uses a non-local direct theme-sign *-aa* indicating that at least one of the arguments is a 3rd person, but (44)b uses the local direct theme-sign *–i* which can only be inserted when both arguments are Speech Act Participants and neither is 3rd person. The theme-sign must encode the π-features of both the internal and external argument to determine whether a local or non-local theme-sign can be used.

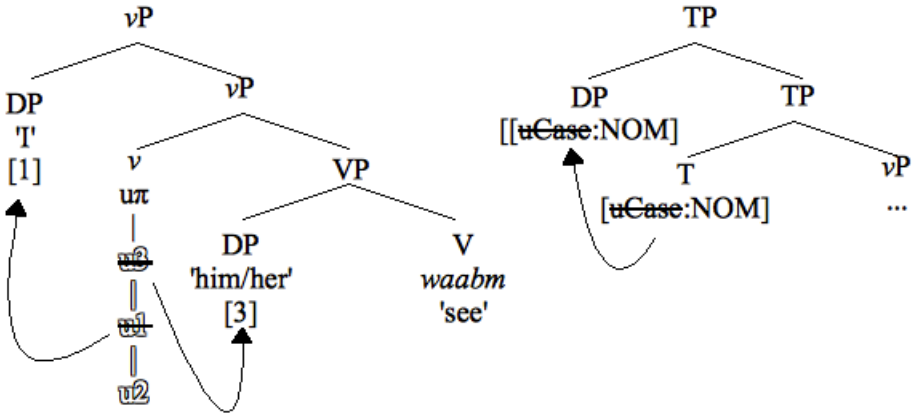
(44) a. g-waabm-aa
2-see-DIR(NL)
'You see him.'

b. g-waabm-i
1-see-DIR(L)
'You see me.' (Valentine 2001:270)

I analyzed these theme-signs in Ojibwe as the spell-out of little *v* that bears a π-probe, like in (42). The probe on *v* is not made up of a single feature, like a simplex [uF], but a set of π-features related to each other by entailment. When *v* merges bearing a π-probe, it searches its complement for a matching goal and can Agree with and license π-features on the internal argument. Then, when the external argument merges it may match remaining unchecked features on *v*, allowing *v* to also Person License the external argument. The complex π-probe allows *v* to enter an Agree relation with multiple goals in the syntactic derivation, given that the goals match unique features on *v*, creating the one-to-many licensor-argument relation of Person Licensing. The ability of a single Person licensor to Agree with more than one argument is not unique to Ojibwe but, I will argue, shows up in Person Licensing in Basque *ergative displacement* (see section 6.3.1) and in the Romance family that exhibit Person Restrictions.

One-to-many licensing is possible because of the nature of π-features as an organized set: they must appear together as a reflex of their relative entailment, but maintain the status as individual features with respect to matching for Agree in the syntax, illustrated in (45)a. The behaviour of the π-probe on *v* is in direct contrast to a standard Case licensor, such as T, which is thought to bear an uninterpretable [uCase:value] feature that has no internal complexity or inherent entailment to other features active in the syntactic derivation, shown in (45)b.

(45) a. One-to-many: Person b. One-to-one: Case



Person and Case Licensing are both achieved by syntactic Agree relations between a licensing head and an argument, but because Person is inherently complex one licensor can potentially license more than one DP, but a simplex Case licensor can only license one DP. The next property looks at the reverse relation: multiple licensors for one DP argument.

6.2.2 One argument to many licensors

Another type of behaviour that distinguishes Person Licensing from Case is the ability of a DP argument to Agree with multiple Person licensors, creating a many-to-one licensor-argument relationship. This property combined with the previous property results in many-to-many licensor-argument relations for Person, in contrast to the one-to-one interaction between Case licensors and arguments. I claim that each DP argument can only receive one instance of Abstract Case because once an unvalued feature on a DP receives Case it cannot get another value. On the other hand for Person Licensing, π-features on a DP are interpretable and do not require a value so that once they Agree with a probe they are still able to Agree with another probe (i.e. they are not marked for deletion like uninterpretable features). The nature of π-features allows for flexible relationships between licensors and licensees, a flexibility not shared with Standard Case.

A strict interpretation of the Case Filter was given in (1) (Chapter 5.1), which states that an argument must receive a single instance of Case and indicates a one-to-one relationship between a licensor and a DP. Just as each licensor can only assign Case to one DP, each DP can only enter into an Abstract Case relation with one licensor. A

simple example of this property was shown in (12)c *'Martha$_i$ seems [t_i has married Mickey],' which is ungrammatical because Martha has moved from a Case marked position in the embedded clause to another Case marked position in the matrix clause.

Some views of Case, however, argue that multiple Case assignment is possible, such as *polyvalent case* proposed by Merchant (2006). For example, the Korean construction in (46) shows that a DP can (in certain contexts) have two distinct case markings on an argument as in (46)b.

(46) a. Chelsu-eykey ton-i philyoha-ta. (Korean)
Chelsu-DAT money-NOM need-DECL
'Chelsu needs money.'

b. Chelsu-**eykey-ka** ton-i philyoha-ta.
Chelsu-DAT-NOM money-NOM need-DECL
'Chelsu needs money.' (Merchant 2006:5)

Schuetze (2001) argues that the optional addition of *–ka* 'nominative' in Korean in (46)b does not actually signal Case, but rather focus. Under this view, there is no multiple case marking but only the marking of focus with a morpheme generally described as a case marker.

Multiple case assignment is also a problem in Icelandic which can retain inherent case, like the dative *skipinu* 'ship' in (47)a, even after a Case transformation like the passive, (47)b.[119] However, it has been proposed that inherent (or Quirky) cases in Icelandic indicate theta-marking and the morphological case marking does not necessarily correspond to the assignment of structural Case in the syntax (see Bobaljik 2008; Bobaljik & Landau 2009, for example).

(47) a. Skipstjórinn sökkti **skipinu**. (Icelandic)
the.captain.NOM sank the.ship.DAT
'The captain sank the ship.'

[119] Boeckx & Hornstein (2006) also entertain double Case assignment for Quirky Case in Icelandic control, but they conclude that there is no multiple Case assignment.

b. **Skipinu** var sökkt af skipstjóranum.
the.ship.DAT was sunk by the.captain
'The ship was sunk by the captain.' (Merchant 2006:8)

Such views of multiple Case values are not uncontroversial and multiple case is often related to mismatches between morphological and structural Case, or other issues. What I am concerned with is licensing Case, namely the instances of Abstract Case that assign a value to a Case feature on an argument. Considering the alternation between the Korean case markings in (46), there is no indication that a second case marking relates to actual Case Licensing (i.e. from grammaticality or from the structure, Schuetze 2001). This marking is different from multiple Person Licensing, which is not optional but triggered in specific environments, as discussed below. Similarly in the Icelandic example in (47)b, if the dative marking on the surface subject *skipinu* 'ship' indicates the Case Licensing of the argument, then what triggers the movement to spec TP in that passive construction (see fn. 86)? If one supposes multiple Abstract Case assignment is possible, then the notion of Case must be very different from the traditional Chomsky (1981) view, and especially from the Minimalist Program (Chomsky 1995, and others) view where Case assignment is the unique deletion of a [uCase] feature on [D]. However, analyses of languages such as Icelandic point to a solution in the mismatch of syntax and morphology for multiple case marking, and not in the valuation of Abstract Case (e.g. Boeckx & Hornstein 2006; Bobaljik & Landau 2009). Therefore, I take the view that Case standardly, and normally, involves only a one-to-one relationship between a licensor and argument.

On the side of Person Licensing, a single DP can easily Agree with more than one Person licensor in the syntax (unlike special instances of apparent multiple Case), indicating that there is also a many-to-one property associated with Person Licensing. This property is seen clearly in the case of Cross-Clausal Agreement since an argument that is fully licensed in the embedded clause can enter an Agree relation with [uπ] on the matrix *v* as well. The sentence in (48)a is a non-CCA construction and the matrix predicate 'know' uses the animate intransitive form *gikendan*, since it takes a clausal complement. Looking at the embedded clause, both the external and internal arguments

are fully licensed, indexed in the π-agreement *–i(n)-k* '2nd object-3rd conjunct'. The CCA version in (48)b exhibits agreement of the matrix predicate with the embedded subject 'you' in both the person prefix *gi-* '2nd' and the transitive animate theme-sign *-ini* 'local inverse,' which indexes both 1st and 2nd person. However, as mentioned in the discussion on CCA, the form of the embedded verb remains unchanged and the embedded subject is still fully licensed in the lower clause.

(48) a. ni-giken-dan gii-baashkizw-i(n)-k (Ottawa)
1-know-VAI PST-shoot-2obj-3conj
'I know that he shot you.'

b. gi-giken-im-ini gii-baashkizw-ad
2-know-TRANS-INV(L) PST-shoot-2subj
'I know that you shot him.' (I know **you** that shot him.') (Rhodes 1994:438-9)

What (48)b shows is that the DP argument 'you' enters an Agree relation with the embedded Person Licensor (i.e. embedded *v*), and then can enter an Agree relation with the matrix Person Licensor (i.e. matrix *v*) and triggers the same kind of agreement found with true non-derived internal arguments.[120]

Therefore, unlike Case, when [β]=[π] a DP can be licensed by more than one head, as long as it is licensed at least once. This distinction between Case and Person might say something about the status of feature valuation in different types of licensing. Person Licensing, as I am proposing it, does not involve any kind of feature valuation on the DP when it enters an Agree relation with a licensor, it is a matching mechanism. Person features are required to enter an Agree relation to be licensed, and, unlike Case, π-

[120] CCA does in fact show double Person Licensing of an argument and not, for instance, matrix verb agreement with a prothetic object or prolepsis. Recall from Chapter 5.2.4, Branigan & MacKenzie (2002) argue against the prothetic object analysis and analyzed CCA as the matrix verb agreeing with a DP in spec CP of the embedded clause. I gave data from the Algonquin dialect of Ojibwe in (28) where CCA is obligatory when there is a DP wh-element at the left edge of the embedded clause. This data indicates that CCA does not need to involve any kind of special prolepsis or movement to occur. (28) shows the obligatory double Person Licensing of the wh-element *awinin* 'who' (i.e. it agrees with the embedded and matrix verb) because it is local to matrix *v* and visible to its π-probe.

features, are interpretable and can remain syntactically active after licensing. Potentially a valued (or interpretable) π-feature on a goal can match unvalued (or uninterpretable) features on more than one probe, and there is no mechanism or inherent property that should prevent this in the syntax. On the other hand, Case assignment centers around the licensing of the [D] feature on an argument but also requires that a specific Case is valued, e.g. nominative, accusative, genitive. So [D] is unvalued for Case (i.e. [uCase:_]) when it enters Agree with a licensing head, and the argument becomes valued meaning it cannot be valued again, that is, it cannot receive multiple instances of Abstract Case.

With these first two properties of Person Licensing we see that there is a many-to-many licensor-argument relationship in contrast to Case Licensing that exhibits a strict one-to-one relationship. I am claiming that these differences in properties are a direct result of the kind of features involved – Case is a simplex feature receiving a value and Person is complex and interpretable. The final property of Person Licensing I wish to address is that of unlicensed DPs.

6.2.3 Unlicensed DPs

In a Case Licensing language, the Case Filter (see (1)) requires that all DPs be Case Licensed, and if the [D] feature on any argument is not properly licensed the derivation is ungrammatical. Person Licensing is the realization of Argument Licensing (30) with [β] equal to [π] on DP arguments, but not every DP necessarily bears a π-feature, even though all DP arguments have a [D] feature. What this means is that while Case Licensing applies to every DP, Person Licensing applies to DPs with π-features and a DP argument lacking a π-specification does not need to be Person Licensed. The last main property I identify that distinguishes Person from Case licensing is that a Person Licensing language can have unlicensed arguments, provided they lack π-features, while a Case Licensing language cannot.[121] It is the [D]/[uCase] or [π] features that require licensing and a lack of feature means no licensing is needed.

[121] One might question whether NP arguments in some languages can also go unlicensed in terms of Case. Bošković (2008) outlines how certain languages without overt determiners allow arguments to be extracted from adjuncts or scrambled out of nominals, showing a freer distribution than languages with determiners. Similarly, Danon (2006) looks at the distribution of indefinites in Hebrew, that can appear in Caseless positions, and posits that these nominals are NPs, not DPs, and do not need Case. I consider Case to be tied

Person Licensing in Ojibwe has two clear situations where arguments with no π-features remain unlicensed: inanimate internal arguments of transitive verbs, and the lower Theme internal argument of a ditransitive. These situations were discussed in Chapter 3.1 and Chapter 4.1 respectively, and I review them again here in terms of Person Licensing.

First, inanimate arguments in Ojibwe do not bear any π-features and do not interact with any person agreement, unlike animates which can have π-features and be reflected in person morphology. The fact that inanimates do not trigger Person Agree is reflected in the morphology, specifically seen in the theme-signs of the transitive inanimate (VTI) paradigm. VTIs have an animate external argument and an inanimate internal argument (e.g. 'He sees it.'), but what is interesting is that they share theme-signs with the animate intransitive verb (VAI), which have a single animate argument (49). The theme-sign is the spell-out of the complex π-probe on *v* which only Agrees with one argument in both VTI and VAI contexts because there is only one animate argument. The inanimate internal argument of a VTI is not encoded in π-agreement, and is therefore outside the realm of Person Licensing.

(49) Transitive Inanimate (VTI):

a. waab-am-d-**am** 'sees it'
b. bii-d-**oo** 'bring it'
c. naa-d-**i** 'fetch it'

(Piggott 1989:181-2)

Animate Intransitive (VAI):

a′. asosod-**am** 'coughs'
b′. bimibat-**oo** 'run'
c′. maw-**i** 'cry'

The second situation where personless arguments can remain unlicensed without triggering ungrammaticality is in a ditransitive construction. (50) shows *emkwaanes* 'spoon' and *mzinegen* 'book' in the lower, Theme position of *miin* 'give'. These DPs are personless inanimates and do not relate π-agreement on the verbal complex. With respect to Person Licensing, they are not licensed.

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directly to [D], so variation in the usage of DP projections is expected to affect the need of Case on nominals.

(50) a. gi-gii-miin-i emkwaanes
2-pst-give-DIR(L) spoon
'You gave a spoon to me.' (Philomene Chegahno, 20/04/07)

b. ne-gii-miin-aa Mani mzinegen
1-pst-give-DIR(NL) Mary book
'I gave a book to Mary.' (Anonymous consultant, 19/04/07)

It is important to realize that this lack of licensing is not a contradiction of Argument Licensing in (30) which states that arguments bearing a specific type of feature, [β], must undergo Agree to be properly licensed. In terms of Case this means all DPs must undergo Agree with a Case assigner: it is the DP that makes them an argument and not, say, a predicative nominal (Higginbotham 1985). While we can assume that arguments in a Person language are also DPs (or some equivalent label), Argument Licensing is relativized to [π], which has no requirement for being present on every argument. Specified π-features on a DP are subject to Person Licensing, and the lack of licensing results in Person Restrictions (parallel to violations of the Case Filter) and are discussed in Chapter 7.[122]

Case and Person are differentiated by their tolerance of unlicensed DP arguments derived from the different features these types of licensing are sensitive to. Case licensing is concerned with the feature [D] that defines something as an argument, while Person is concerned with [π] which does not define argumenthood itself (although it can only appear as interpretable on arguments). Personless arguments may go unlicensed because Person Licensing can only see specified π-features, but Case cannot ignore any argument because a [D]-less argument is in fact no argument at all.[123]

[122] Note that if there were a Person Licensing language where all arguments bear specified π-features needing to be licensed (e.g. no personless arguments) this language would still show distinct properties from Case in the realm of Person Restrictions. For example, the Double Object Construction would be ungrammatical in general (in the absence of independent movement of arguments to licensed positions), since an argument needing licensing could never be in the lower Theme position.

[123] Where [uCase:_] appears on the category [D], and not, say [N].

6.2.4 Summary of licensing properties

Using the case study of Ojibwe, I have presented the bundle of properties associated with Person Licensing in contrast to the bundle of properties found with Case Licensing. Both sets of properties strictly follow the universal of Argument Licensing in (30), but differ from each other because of the specific nature of the features [D]/[uCase] and [π]. Case, as the checking of unvalued, categorial [D] features (e.g. Chomsky 1993) requires a one-to-one relationship between licensors and arguments, as well as the licensing of all argument DPs. Person Licensing is contrastively the checking of valued π-features, which are not categorial but complex and occur as an organized set related by entailment. Person allows for potential many-to-many licensor-argument relationships and does not necessarily license every DP, but only those with interpretable π-features.

The chart in (51) summarizes the properties of the [D] and [π] features. I have argued that it is the nature of these features themselves that gives rise to the disparate bundles of properties (see (41)) between Case and Person Licensing.

(51) Comparison of Argument Licensing features

	Case Licensing	**Person Licensing**
[β]=	[D]	[π]
Type of feature	simplex; categorial	complex; entailed set
Value on argument	unvalued ([D, uCase:__])	valued/interpretable
Argument defining	Yes	No

Attempting to account for the workings of pure Person Licensing as Case faces issues with the disparate properties (particularly that a personless argument can go unlicensed) and loses the elegance of the idea of Case. It is important to take a step back from Case and consider what underlies it – Argument Licensing in my terms – so that we can better understand typological differences between languages. I maintain that Person is distinct from Case, although deeply related by Argument Licensing.

As discussed in this Chapter 5, I consider Ojibwe to be caseless, since it lacks any evidence of Abstract Case, and to syntactically license its arguments by Person. At the other end of the spectrum is a language like English that Case Licenses its arguments but

shows no real sensitivity to π-features to control the distribution of arguments. Given Case and Person, there is a third possible type of language that requires it arguments be licensed by both Case and Person, which I will claim is realized in languages like French that show canonical Case phenomena as well as Person Restrictions (see Chapter 7.1.1). But before I turn to the discussion of Person Restrictions and how they relate to the properties of Person Licensing in many languages, I want to look at Basque, which shows the properties of Person Licensing I have laid out for Ojibwe. The Person Licensing properties I propose in this section are not language specific but are relevant in many languages that require the Person Licensing of their arguments, whether in the absence of Case, or in addition to it.

6.3 Person Licensing beyond Algonquian: the case of Basque

In this section I discuss data from Basque, which I claim is also a Person Licensing language and shows the bundle of properties listed in the previous section. Person Licensing languages can be identified by their sensitivity to Person Restrictions, which are the constructions that violate Person Licensing (just as certain constructions violate the Case Filter). Basque shows interesting behaviours with respect to Person Agree as well as Person Restrictions (see also Chapter 7.2.2). I look at the phenomenon of *ergative displacement* that shows a one-to-many relationship between a Person licensor and arguments, *irudi* verbs that involve many-to-one licensor-argument Agree (like Cross-Clausal Agreement in Ojibwe), and the Person-Case Constraint in Basque that indicates a need for arguments with specified π-features to be licensed (i.e. by Person Licensing). Basque shows the Person properties I argued for in the previous sections based on Ojibwe data and supports the claim that Person, like Case, is identified by its effects.

I claimed that the Person Licensing in Ojibwe is centered on *v*, which can bear a complex probe of organized π-features. The nature of π-features as complex and interpretable (i.e. valued) on DP arguments gives rise to certain behaviours that are not necessarily shared with Case Licensing, namely many-to-one and one-to-many licensor-argument relationships and unlicensed impersonal DPs. These properties are also found in Person licensing in Basque, as evidenced by its syntactic and morphological behaviour.

6.3.1 Ergative displacement

The phenomenon of *ergative displacement* in Basque indicates a one-to-many licensor-argument relationship that I claimed was a property of Person Licensing (section 6.2.1). In Ojibwe, the checking of *v* with multiple clausal arguments is encoded on the theme-sign suffix, which can reflect the π-features of both arguments. I argue, in line with Béjar & Rezac (2009), that ergative displacement in Basque results from a single syntactic head (i.e. *v*) Agreeing with both the internal and external argument, since it spells-out the more specified π-features between the two arguments. The morphology of ergative displacement is less complex than Ojibwe theme-signs but requires one slot to encode the π-features of two arguments in order to compare them. I maintain that *v* is the standard locus of Person Licensing in Basque as well, and that it can license the π-features of both an internal and external argument.

For Basque, there is traditionally a dedicated person agreement slot for arguments of different ergative system case markings, given in (52). The slot under review here is the absolutive prefix.

(52) **Basque verbal affixes**: ABS-√ROOT-DAT-ERG (Artiagoitia 2001:2)

According to Rezac (2008) and Béjar & Rezac (2009), the spell-out of little *v* appears to roughly correspond with the absolutive agreement prefixes that appear on the verb or auxiliary. The Basque 3rd person absolutive and ergative verbal agreement is typically null, in contrast to the overt prefixes used for 1st and 2nd person agreement (although some claim there is 3rd/default marking, e.g. Artiagoitia 2001 for *d-* '3rd absolutive'). The data in (53)a-c shows the use of the absolutive prefix in the past paradigm: the internal argument of a transitive is absolutive and is indexed by its person features in the verbal prefix (**bold**). However, the prefix position does is not always absolutive agreement, seen in (53)d where the prefix agrees with the 1st person ergative subject rather than the 3rd person absolutive object. The phenomenon in (53) is labeled *ergative displacement* where

an SAP ergative argument can displace agreement with a 3rd person absolutive argument.[124]

(53) a. ikusi **z**-in-t-u-da-n (Basque)
seen 2-X-PL-have-1-PST
'I saw you.'

b. ikusi **n**-ind-u-en
seen 1-X-have-PST
'He saw me.'

c. ikusi **n**-ind-u-zu-n
seen 1-X-have-2-PST
'You saw me.'

d. ikusi **n**-u-en
seen 1-have-PST
'I saw him.' (Béjar & Rezac 2009:37)

Béjar & Rezac (2009) derive ergative displacement from Cyclic Agree of two arguments with a complex probe on *v*,[125] the same basic analysis given for theme-sign suffixes in Ojibwe (Chapter 2). For example, in (53)b 'He saw me' *v* will first Agree with the 1st person object, and then can Agree with the 3rd person subject when it merges. The prefix spells-out the 1st person features since they are the most specified. But in (53)d, 'I saw him', it is instead the external argument that is 1st person and more specified, and agreement with the absolutive object is displaced for the 1st person ergative subject. 1st and 2nd person are not ranked with respect to each other in Basque (unlike in Ojibwe) and do not displace each other.[126]

[124] The glosses in (53) are taken directly from Béjar & Rezac (2009). They describe the morphemes glossed as –X as 'irrelevant/unclear' (pg. 37, fn. 2).

[125] Béjar & Rezac (2009) note that the change in morphology due to ergative displacement does not have a syntactic effect, e.g. it does not change binding relations.

[126] Within my view of π-features as related by entailment relations (Chapter 2.2), Basque would exhibit a feature geometry like (i). This arrangement of features reflects that 1st and 2nd persons are not ranked with respect to each other in this language.

What ergative displacement shows is a syntactic element, here assumed to be *v*, that is able to encode the π-features of both arguments, which is a one-to-many licensor-argument relation. The person agreement of the absolutive prefix in (52) is not exclusively linked to the π-features of the absolutive argument but instead to agreement with both arguments in a transitive clause. I claim that Basque, as a Person Licensing language, shows the one-to-many licensor-argument property of Person. Next I argue that Basque also shows many-to-one licensor-argument relations in constructions with *irudi* verbs.

6.3.2 Basque Irudi verbs

I claim that not only can Person Licensing involve one-to-many licensor-argument relations, but also many-to-one relations whereby a DP can enter an Agree relation with more than one Person licensor. Evidence of the many-to-one property in Basque comes from constructions involving *irudi* verbs that have the general meaning of 'seem', including *irudi* 'seem', *eman* 'seem' and *iduri* 'picture' (Artiagoitia 2001). These verbs have been considered as kinds of transitives because they assign ergative case (under the meaning 'seem', not for other possible meanings of these verbs), however Artiagoitia (2001) claims that these verbs are intransitive. He shows that they do not introduce any DP arguments, but only take small clause or finite clause complements. *Irudi* verbs do not show any kind of object agreement nor do they introduce an external argument, but Artiagoitia considers *irudi* to exceptionally mark ergative case on a DP argument raised from the embedded clause.

Irudi verbs are interesting for Argument Licensing because, similar to Raising Predicates in English, embedded arguments can either remain in the lower clause or be raised into the matrix clause. (54)a shows *ematen* or *irudi* taking a CP complement and

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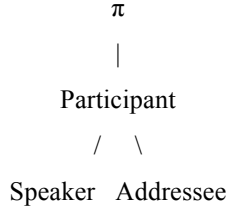
(i)



the embedded subject *Jon* is morphologically unmarked and therefore absolutive.[127] (54)b is the raising version of this sentence where the embedded argument *Jonek* raises into the matrix clause (not obvious from word order) and gets marked ergative by the matrix *irudi* verb. The situation is clearer in (55) with overt agreement.[128,129] (55)a gives a non-raised example and the embedded 2nd person remains absolutive in the lower clause while agreeing with the embedded verb. (55)b is the raised version and 2nd person is shifted to ergative and overtly agrees with both the embedded and matrix verbs.

(54) a. Jon nekatuta d-ago-ela { ematen d-u / d-irudi } (Basque)
Jon tired x-√be-that seem *d*-√have *d* -√seem
'It seems that John is tired.'

b. Jon-ek nekatuta d-ago-ela { ematen d-u / d-irudi }
Jon-ERG tired *d*-√be-that seem *d*-√have *d* -√seem
Lit: 'John seems that (he) is tired.' (Artiagoitia 2001:4)

(55) a. (zu) nekatuta z-aud-ela ematen d-u (Basque)
2ABS tired 2-√be-that seem *d*-√have
'It seems that you are tired.'

b. (zu-k) [nekatuta z-aud-ela] ematen d-u-**zu**
2-ERG tired 2-√be-that seem *d*-√have-2ERG
Lit: 'You seem that (you) are tired.' (Artiagoitia 2001:19)

In the examples above, it is important to note that the embedded clauses are all finite and fully license their arguments before raising (seen in the (a) examples). Artiagoitia (2001:4, fn. 4) even states that speakers reject non-finite complements for *irudi* verbs,

[127] Artiagoitia (2001) glosses *d-* as 'absolutive' 3rd person or default marking, but Arregi & Nevins (2008) call it an epenthetic prefix that occurs with vowel initial stems.

[128] The raising of SAPs is variably acceptable by speakers, according to Artiagoitia (2001), but perfectly acceptable to some.

[129] Although raising is not obvious from word order, Artiagoitia (2001) shows that raising occurs in examples like (54)b and (55) in his discussion of causative constructions, scope ambiguity, and expletive subjects and how they interact with *irudi* constructions.

where finiteness is essential for proper licensing. *Irudi* verbs are unlike Raising Predicates in Case languages, such as 'seem' and 'appear' in English, that exhibit raising when the embedded clause is non-finite and the raising argument requires Case from the matrix verb. In Basque, the complement of *irudi* does not change its form when an argument raises out.

I consider this type of construction to signal the many-to-one licensor-argument property of Person Licensing where an argument can enter an Agree relation with a Person licensor in both clauses. For example, in (55)b the 2nd person agrees with the embedded auxiliary before raising and agreeing with the matrix auxiliary, indicating two instances of person agreement. One may consider raising with *irudi* verbs to be an instance of multiple Case assignment, however this would be at best multiple m-case assignment – either considering the embedded absolutive to be unassigned in (54)b and (55)b, or no Abstract Case assignment in the upper clause. The argument is not moving for licensing purposes and, under standard Case theory, A-movement to get Case is obligatory, not optional.

The Basque data from *ergative displacement* and *irudi* verbs indicate many-to-many Person licensor-argument relations. As claimed by Béjar & Rezac (2009), prefix agreement relates to Cyclic Agree with *v* and I claim that *v* is the core Person licensor in Basque (as in Ojibwe) as it bears a complex probe and can Agree with both the internal and external argument. Assuming that Basque does indeed have a complex Person licensor on little *v*, I turn to further evidence from Person Restrictions that Basque is a robust Person Licensing language.

6.3.3 Person Restrictions

The final core property of Person Licensing is that arguments lacking π-features can escape the need for syntactic licensing (assuming they are properly theta-licensed). This property is seen in Person Restrictions (discussed in Chapter 7) that disallow Speech Act Participants in certain constructions or positions where 3rd persons are instead acceptable as functionally personless in many languages.[130]

[130] I discussed in Chapter 4.2.1 the ability of 3rd persons to escape the requirement of Person Licensing. 3rd persons lack a π-specification in some languages, and are personless, or can escape the strict requirement of Person Licensing imposed on 1st and 2nd persons.

Basque shows the Person-Case Constraint (PCC) where the lower internal argument (Theme) in a ditransitive can only be third person and is ungrammatical if it is an SAP. The ditransitive construction in (56)a is ungrammatical as a violation of the PCC because the lowest Theme internal argument, *ni* 'me', is 1st person under a dative Goal and cannot be properly licensed (i.e. by *v*). An unlicensed 1st person violates Person Licensing, just as a caseless DP violates the Case Filter. (56)b is also a ditransitive but is grammatical because the lower internal argument 'it' is 3rd person and can be treated as lacking any relevant π-specification. A personless DP argument can remain unlicensed in terms of Person, allowing personless DPs to occur in positions that DPs with specified π-features (i.e. 1st and 2nd person) cannot occur in. I consider the PCC to be an intervention effect between the two internal arguments, where only the higher Goal argument can be Person Licensed by little *v*, but the lower Theme is blocked from Agree with *v* by the Defective Intervention of the Goal (see Chapter 4.2).

(56) a. * Eur-ek su-ri ni sal-du n-o-tzu-e (Basque)
3-ERG 2-DAT 1(ABS) sell-PERF 1-√prs-2-3pl
'They have sold me to you.'

b. Bat-an bat-eri emo-ngo d-o-tze-t
one-GEN one-DAT give-FUT *d*-√prs-3-1
'I'll give it to someone or other.' (Arregi & Nevins 2008:57,53)

The PCC in Basque shows that Person Licensing is active in this language, as well as the associated property that an argument that is otherwise theta-licensed can forego syntactic licensing by Person if it lacks the relevant feature [π]. I have now shown that the Person Licensing properties listed in (41) are not specific to Ojibwe and or the Algonquian language family, but are also identifiable in Basque. Basque Person Agree shows one-to-many and many-to-one licensor-argument relations and the ability to leave arguments unlicensed when they lack the relevant π-features.

The Person Licensing properties I have introduced exist apart from the behaviour of Case and are crucially not Ojibwe or Algonquian specific but occur in other languages, such as Basque, that require the licensing of their arguments by Person.

6.4 Chapter Summary

This Chapter introduced a specific notion of Person Licensing that can be split apart from Case Licensing. I claim that neither Case nor Person Licensing is primary but that both are possible realizations of the underlying universal of Argument Licensing relativized to different features. Case Licensing is based on the checking of unvalued Case features on [D] arguments that gives rise to a one-to-one licensor-argument relationship. In contrast, Person Licensing shows many-to-many licensor-argument relationships because [π] on arguments is interpretable/valued and π-probes are complex sets of entailed features, not categorial or simplex like [D]. DP arguments can escape the need for Person Licensing if they lack [π] features, unlike with Case, but in both situations arguments must be properly selected and theta-licensed (see also the related view of Person in Ritter & Wiltschko 2004, 2007, 2010).

I have presented a new perspective on the licensing of arguments in the claim that Person is not crucially tied to the checking of Case in every language (although it can be in some languages) with the aim of better understanding the distribution of arguments cross-linguistically. Case and Person correspond to separate bundles of properties that I illustrated in Ojibwe, a caseless Person Licensing language, as well as in Basque, which also requires its arguments be Person Licensed. The next Chapter continues the discussion of argument distribution in terms of Person looking at Person Restrictions found across a wide range of languages in different forms. I claim that these restrictions are grounded in the behaviour of Person and the associated licensing, rather than on Case, and that we can see the evidence of Person Licensing in many languages. At this point in the discussion there is a three-way typology for Argument Licensing: Case languages, Person languages and Person plus Case languages. The following Chapter shows languages that require their arguments to be fully licensed by both Case and Person, and in turn exhibit the properties associated with each type of licensing.

Chapter 7 Person Restrictions

I have argued that the universal of Argument Licensing requires that arguments be syntactically licensed by Agree with a certain type of feature, [β] (detailed in (30) in Chapter 5.3). Case is then a realization of Argument Licensing where the relevant feature is a case or [D] feature, meaning Case itself is not the universal but does the work of Argument Licensing in many languages. The idea I have put forth is that Person Licensing is also a possible realization of Argument Licensing, where the relevant feature is instead [π] and Person can be differentiated from Case by its behaviour. Having looked at Person Licensing in Ojibwe and Basque, I now expand the discussion to consider a variety of languages that are subject to Person Restrictions. Person Restrictions refer to restrictions on the π-specification of arguments in certain constructions, and I consider them to indicate Person Licensing in a language, where restrictions arise in the event of unlicensed π-features on DP arguments. Ungrammaticality resulting from the violation of a Person Restriction is parallel to ungrammaticality induced by a violation of the Case Filter. Many of the languages discussed in this Chapter are uncontroversially Case Licensing languages (e.g. French), but I claim that a language with Person Restrictions shows a need to syntactically license the π-features on its arguments in addition to assigning Case values. The two types of licensing need not be mutually exclusive, nor are they dependent on each other.

The most famous Person Restriction is the Person-Case Constraint, which I identified in Ojibwe ditransitive constructions in Chapter 2.3. I proposed that the Person-Case Constraint in Ojibwe is derived by Cyclic Agree with the complex π-probe on *v* that can Person License an internal and external argument, but cannot license a second, lower internal argument due to Defective Intervention of the higher internal argument. First, I review my analysis of the Person-Case Constraint and extend it to the realization of the restriction in French, Catalan and Greek, arguing that these languages also have *v* as the locus of Person Licensing. Second, I look beyond the Person-Case Constraint in ditransitives to so-called Quirky Person Restrictions found in transitive psych-verb constructions in Spanish, Basque and Icelandic. I argue that the psych-constructions show restrictions like ditransitives because both involve multiple internal arguments within the

complement of *v*, and *v* can only Person License immediately adjacent arguments leaving a lower internal argument unlicensed. Third, I consider the phenomenon of split-ergativity in Dyirbal and Halkomelem Salish, where an ergative agreement pattern can be disrupted depending on the π-features of the arguments. I argue that these are also Person Licensing languages and that the split-patterning results from the kinds of Agree relations arguments have with *v*, the core π-licensor.

The data reviewed in this Chapter show the extent to which Case and Person can both be active in a given language. I reject the notion that Person Licensing should be predicated on Case since Person Restrictions show properties of Person (i.e. licensor *v* relating to more than one DP argument, one-to-many) and do not depend on Case valuation (but rather on relative syntactic position). Further I treat the Person-Case Constraint and related restrictions as derived in the syntax rather than strictly in the morphology, even though the phenomena are often identified as relating to clitics or agreement morphemes. I claim that these Person Restrictions are consistent at the syntactic licensing level, but may encounter language specific complications in terms of morphological realization.

7.1 The Person-Case Constraint in ditransitives

Recall from Chapter 4.2 that Ojibwe ditransitives are subject to the Strong Person-Case Constraint (PCC) (57). I consider the PCC to be a syntactic phenomenon derived from Person Licensing (58), where Cyclic Person Agree (i.e. with *v*) is sensitive to Defective Intervention ((92) in Chapter 4.2.1; see also the Minimal Link Condition, Chomsky 1995), such that violations of the PCC are the instances where a specified π-feature on an argument cannot be properly licensed.[131]

[131] The view of Bonet (1996) is that the PCC in (57)i is a morphological restriction disallowing certain clitic combinations (e.g. **me-lui* in French, (60)). This view seems to be untenable for Ojibwe because the morpheme combinations appearing in ditransitives, like (i)a, violating the PCC can grammatically occur in certain transitives, like (i)b.

(i) a. * **ni**-gii-miin-**aa** giin
1-PST-give-DIR(NL) you
'I gave you to him/her.'

b. **ni**-gii-waabm-**aa**
1-PST-see-DIR(NL)
'I see him/her.'

(57) **Strong Person-Case Constraint**: The direct object (Theme) must be 3rd person in the presence of a DP indirect object (Goal).

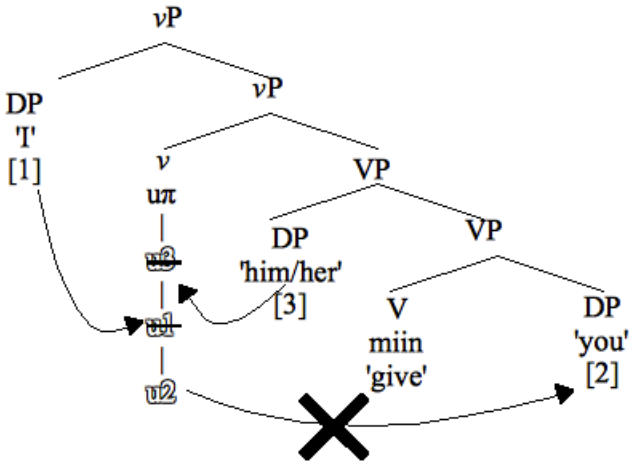
(58) **Person Licensing**: A DP bearing a π-feature, [β], must enter into an Agree relation with a head bearing an unvalued feature [uβ].

The analysis of the Person-Case Constraint I put forward for Ojibwe is schematized in (59), where the π-probe on *v* cannot Agree with the Theme in a Double Object Construction over an intervening Goal DP (because of Defective Intervention).

(59) PCC violation

a. * ni-gii-miin-aa giin
1-PST-give- DIR(NL) you
'I gave you to him/her.' (Philomene Chegahno, 20/04/07)

b.



The following subsection looks at the PCC in French, Catalan and Greek and how they are also accounted for by Person Licensing with *v*. The PCC is not perfectly uniform across languages and shows extra restrictions in different languages and dialects, but I argue that the syntactic basis of the PCC is constant. The PCC arises when there are

multiple internal arguments competing for Person Licensing with a single licensing head. An important part of this discussion is the use of repairs to obviate violations of Person Restrictions. Repairs take on many different forms dependent on the language, but each repair fixes the issue of an unlicensed personful argument (i.e. a violation of Person Licensing (58)).

7.1.1 The PCC in French

French, like Ojibwe, is a Strong PCC (57) language which disallows 1st or 2nd person accusative clitics (Theme/direct object) in the presence of a dative clitic (Goal/indirect object), shown in (60)a (also known as the *me-lui* constraint). The repair for this construction replaces the dative clitic with a prepositional phrase, as in (60)b. Note that 3rd person Themes are not restricted because they appear to be personless in French, therefore not requiring licensing.

(60) a. * Paul **me** **lui** présentera. (French)
Paul **1.ACC** **3.DAT** will.introduce
'Paul will introduce me to him.'

b. Paul me présentera **à** **lui**.
Paul 1.ACC will.introduce **to** **him**
'Paul will introduce me to him.' (Anagnostopoulou 2005:16)

I am proposing that French is a Person Licensing language, but is unlike Ojibwe because it also requires Case Licensing of its arguments and shows standard evidence for Abstract Case, such as the Passive, ECM/Raising and A-binding. In French, each DP must be properly assigned Case by Case licensors, but must also license any π-features with a Person licensor, namely little *v*. The relevant difference between French and Ojibwe is that Ojibwe has robust, transparent person morphology displaying the mechanisms of Person Licensing on the surface, while French has impoverished morphology.[132]

[132] I posit that French *v* can check π-features on an internal and external argument as it can Ojibwe, however this checking results in direct and inverse morphology in Ojibwe. French does not spell-out complex person morphology like Ojibwe, and the French π-feature system is simpler, where only 1st and 2nd person appear to have specified features and 3rd person lacks any specification. I predict a possible language, French′, that

Although these languages differ in their morphological realization of Person, they share syntactic effects, particularly the realization of the Person-Case Constraint, as in (60)a.

Again, the complex π-licensor on *v* is not Ojibwe specific, but can be found in a language such as French, and can license an argument in its complement and another in its specifier, but cannot license any DPs past the arguments adjacent to it. Considering the underlying argument positions (abstracting away from clitic dislocation) we have a Double Object Construction for (60)a, shown in (61)a (compare with (59) in Ojibwe). Little *v* bears multiple features that can license the π-features on the external argument, *Paul,* and Goal, *lui,* which are local to it, but cannot license 1st person π-features on the Theme, *me,* because the Goal intervenes between them. This is a direct violation of Person Licensing because a personful argument, the direct object *me* 'me', is not visible to a Person licensor and its π-features go unlicensed. The PCC can be repaired in French, seen in (61)b for (60)b, which changes the structure from the Double Object Construction, where two DP arguments are competing below *v*, to the Dative prepositional phrase construction that removes the Goal as an intervener between the Theme and *v*. The Goal is now licensed in the PP and the Theme can Agree with *v* in the absence of an intervener. This repair erases the intervention between the two internal arguments and little *v* and adds an additional Person licensor, P, such that all arguments are fully Case and Person Licensed.[133]

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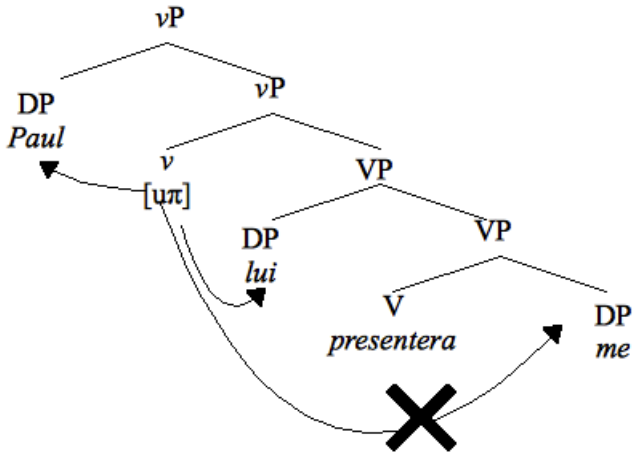
would spell-out little *v* and alternate forms depending on whether there were SAPs in the clause or not, but not necessarily morphology of Algonquian complexity.

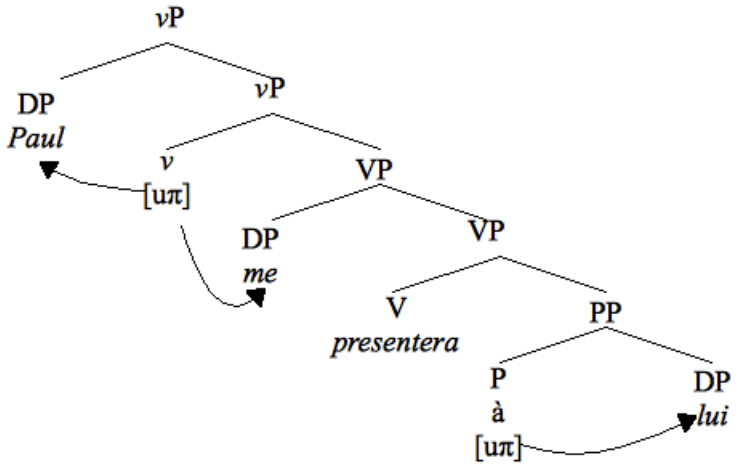
[133] I view (60)b to be a Dative PP construction (as in (61)b) with the PP headed by *à*, rather than *à* acting as a case marker for *lui*.

(61) PCC structures in French

a. PCC violation (60)a



b. PCC repair (60)b



One issue that arises is what is the role of Case in these constructions, especially since such restrictions are considered to operate on both Person and Case specifications (i.e. the *Person-Case* Constraint). I argue that Case is not relevant because in both grammatical and ungrammatical PCC sentences all arguments are Case licensed and the repairs are not invoked to add Case licensors or make them visible, but only for Person licensors. Compare the grammatical ditransitive in (62) with the ungrammatical PCC violation in (60)a.

(62) Agnès me la présentera. (French)
Agnès 1.DAT 2.FEM.ACC will.introduce
'Agnès will introduce her to me.' (Haspelmath 2004:2)

If we look at strict Case licensing (suspending the notion that Person is somehow dependent on Case), these two sentences show no difference in Case licensing. The internal arguments are assigned dative and accusative Case, and the external argument is nominative. It is odd to consider the PCC a problem of Case assignment because it is not a change in structure or the availability of Case that causes ungrammaticality. The only real difference between (60)a and (62) is the Person specification of the arguments. Assuming Case and Person are intrinsically tied together either predicts that the assignment of accusative Case also licenses Person (or phi) on the accusative *me* in (60)a – which would then be grammatical – or that accusative Case marking in these ditransitives specially does not involve Person Licensing. Further, the French PCC repair illustrated in (61)b does not repair Case licensing, otherwise the Dative PP structure should be required for argument specifications like those in (62), but it is not.

Therefore, French is a Person Licensing language without the overt person agreement found in Ojibwe, but with the syntactic effect of Person Licensing in the PCC (i.e. ungrammaticality caused by a π-specification). I claim that the Person Licensing mechanism in French is little *v* bearing a complex π-probe that can license the π-features of local arguments. French and Ojibwe share π-licensing from *v* even though it is only in Ojibwe that we see the spell-out of this complex probe in the morphology. Next I look at the PCC in Catalan and Greek and the associated repairs that vary between the languages.

7.1.2 PCC repairs in Catalan and Greek (and Chinook)

French illustrates a version of the Person-Case Constraint, as well as a syntactic repair that changes the structure from a Double Object ditransitive to a Dative PP. There are many different complications associated with the PCC across languages, and I discuss a few of the differences here. Catalan, another Romance language, has the PCC but uses a morphological repair which is fully distinct from the French syntactic repair but still solves the violation of Person Licensing. Greek indicates complications for my view of the PCC as fully syntactic since there are grammaticality differences associated with the

use of weak clitics versus strong pronouns. Chinook, also, is an interesting case where there is no clausal repair for the PCC and shows that while the requirement of Person Licensing is basic to many languages, the formulation of a repair is not.

Beginning with Catalan, PCC effects are seen in (63)a with the impossibility of a 1st person accusative Theme *me* under a 3rd person dative Goal. Unlike French, Catalan uses a morphological repair to obviate the PCC where the form of the dative clitic is changed to an impersonal clitic, the locative or inanimate *hi* (63)b.[134]

(63) a. * A en Pere, me li va recomanar en Josep
to the Pere **1.ACC** **3.DAT** recommended.3 the Josep
'As for Pere, Josep recommended me to him.'

b. A en Pere, m' hi va recomanar en Josep
to the Pere 1.ACC *hi* recommended.3 the Josep
'As for Pere, Josep recommended me to him.' (Catalan; Bonet 1991:209)

This type of data is used to argue for the PCC as a restriction on clitic combinations, but such a generalization does not have anything to say for a language like Ojibwe that has grammatical morphology combinations in PCC violating constructions. I maintain that Person Restrictions are a reflex of the syntactic Person Licensing of arguments, and I suggest that the change of the dative clitic *li* to the "locative" *hi* is to allow all π-features to be licensed in the clause. One possibility is that *hi* is personless (which would assume *li* has some manner of π-feature in Catalan) and becomes invisible to the π-probe on *v* allowing *v* to probe past the indirect object down to the 1st person direct object.[135] Another possibility is that *hi* is literally locative and either is not a DP, or it signals the

[134] Catalan also shows the Weak PCC instead of the Strong PCC in French that allows two personful internal arguments if they share SAP features (i.e. a 1st and a 2nd person). The Weak aspect of the Weak PCC is often considered to be a different issue from the Person Restriction entirely, so I will leave it out of the discussion at this point.

[135] As argued in Chapter 4, Ojibwe Person Agree is very sensitive to Defective Intervention, but this sensitivity can vary across languages. I assume Catalan Person Agree may be sensitive to Defective Intervention, in that *v* cannot Agree with a Theme DP across an Agreeing Goal DP, but is not sensitive to DPs void of π-features like *hi* (unlike Ojibwe).

placement of the Theme/indirect object in a prepositional phrase. Whatever view will fit the Catalan syntax the best, the point is that the change of the clitic will allow the accusative argument to be Person Licensed and no longer violate Argument Licensing relativized to [π] (i.e. (58)).

Turning to Greek, an issue for the syntactic licensing approach to the PCC is that the PCC traditionally only occurs with "weak" elements, like clitics, but not with strong pronouns. The Greek PCC shows a distinction between clitics, like the ungrammatical *se* '2nd accusative' in (64)a, and strong pronouns, like the grammatical *esena* 'you' in (64)b.

(64) a. * Tha tu se stilune (Greek)
FUT 3.GEN 2.ACC send.3pl
'They will send you to him.'

b. Tha tu stilune esena
FUT 3.GEN send.3pl you(ACC)
'They will send you to him.' (Anagnostopoulou 2005:4,5)

My syntactic approach to the PCC deals with licensing underlying arguments and not their surface realizations as DPs, pronouns, or clitics. The alternation in the Greek data in (64) is therefore not covered under my account as it stands. One suggestion is that the use of the strong pronoun *esena* 'you' in (64)b may co-occur with a change in the underlying structure from the Double Object Construction to a Dative PP construction (i.e. with a null preposition on *esena* 'you').[136] Alternatively, the strong pronouns could be formally 3rd person in the syntactic derivation, and not subject to the licensing restrictions on other 1st or 2nd persons.[137]

[136] The data in (i) could support the Dative PP view of strong pronouns in ditransitive obviating PCC effects, but this depends on how such data is analyzed in Greek.

(i) Me sistisan s-esena (Greek)
1.ACC introduced to-you.ACC
'They introduced you to me.' (Chatzikyriakidis & Kempson 2009:126)

[137] Thank you to Martina Wiltschko for the suggestion of this possibility. A related view is seen in Halkomelem Salish (Déchaine & Wiltschko 2002).

I continue the discussion under the assumption that the PCC is basically concerned with the Person Licensing of the underlying arguments and that their realization as clitics or strong pronouns is secondary to their syntactic licensing. Surface factors can affect the acceptability of PCC sentences, and these factors can vary widely from language to language, but I claim that the underlying structure of the PCC is consistent. The view of the PCC as Person Licensing means that a repair of the PCC will include a featural or structural change that allows the appropriate Agree relations between a Person licensor (*v*) and an argument bearing interpretable π-features.

Another complicating issue in the discussion of the PCC is the availability of repairs. Chinook, a Penutian language, also exhibits PCC effects shown in (65), but there is no repair and no grammatical clause equal in meaning.

(65) *č- n- a- l- u- √i-amit
3rdsg.masc.ERG- 1stsg.ABS- 3rdsg.fem.DAT- to- away- √taking
'He is taking me for her.' (Chinook; Silverstein 1986:190)

This is a shared property with the PCC in Ojibwe, which also has no grammatical repair (syntactic or morphological) for PCC sentences like (59)a. The only way to get the meaning of 'I gave you to him/her' across in Ojibwe is through the discourse. The lack of a repair is not unexpected under the Person Licensing view of the PCC: it is required only that personful arguments be licensed, not that every combination of person specifications be possible.

I argue that the PCC arises in Ojibwe, as well as in French, Greek, Catalan, Chinook and other languages because of an intervention effect between multiple internal arguments that are competing goals for the π-probe on *v*. The PCC violating structures resemble the Double Object Construction, illustrated in (59) and (61)a, since this is the very instance where the ditransitive *v* has two internal arguments. In French, the Dative PP construction is a possible alternative to obviate a PCC violation as it alters the argument structure so that there is only one relevant argument goal in the complement of *v*. The Catalan repair instead impoverishes the π-features of the Goal allowing the Theme to be licensed. Although repairs look different depending on the language, and in fact a

repair is not always available as in Chinook, I claim that these repairs of the PCC allow for the proper licensing of π-features in a clause and are not to rescue any kind of Case violation. Rather, Case licensing is not an issue for PCC constructions since all arguments appear to be perfectly Case licensed whether or not a clause violates the PCC.

Next I will look at a wider range of Person Restrictions beyond the PCC in ditransitives, claiming that they share the requirement of Person Licensing of their arguments and the co-occurrence of multiple internal arguments creating intervention effects with the locus of Person Licensing, little *v*.

7.2 Psych verb constructions

I have shown that my approach to the Ojibwe Inverse System predicts the presence of the Person-Case Constraint in Ojibwe (see Chapter 4), and that this approach is harmonious with the PCC and repair facts in other languages. In this section I look beyond ditransitives to psych verb constructions that also exhibit Person Restrictions. I claim that psych-constructions are actually parallel to the Double Object ditransitive because they share (i) a complex *v* probe and (ii) an underlying structure with two internal arguments in *v*'s lower search space.

First I look at Quirky Person Restrictions in Spanish, discussed by Rivero (2008), that restrict the π-specification of certain internal arguments of psych verbs. Then I return to some Basque data that show a similar restriction on arguments of psych verbs. I discuss the analysis of Rezac (2008), who argues that the Basque restriction relates to Case assignment, but I claim that Person checking apart from Case is sufficient to account for the data. Finally I touch on Icelandic Quirky Subjects, which have received a lot of attention in the literature of Case and Person Restrictions. Icelandic introduces some interesting data involving Person Restrictions across a clausal boundary, as well as complications around the role of overt person agreement. Although these Person Restrictions appear in many forms, I am arguing that they share certain properties that result in the inability of a DP to get Person Licensed. The Person constructions under discussion share (i) a need to Person License arguments, (ii) *v* as a complex Person licensor, and (iii) an argument structure with multiple DPs in the complement of *v*, causing intervention effects between those DPs and *v*.

7.2.1 Spanish Quirky Person Restrictions

Spanish shows several different types of Person Restrictions, including the (Weak) PCC, spurious "se" effects and Quirky Person with a subset of psych verbs. Here I focus on Quirky Person Restrictions and their recent discussion by Rivero (2008). Spanish Quirky Person Restrictions are found with certain unaccusative psych verbs and inchoatives where the π-specification of a nominative object can only be 3rd person in the presence of a dative subject clitic. For example, *antojan* 'fancy' in (66)a can take two third person arguments, but the construction becomes ungrammatical with the 1st person plural object in (66)b. This restriction is only found with a subset of Spanish psych verbs, and most psych constructions allow for SAP internal arguments, like 'yearn' in (67).

(66) a. A Ana se le antojan ellos. (Spanish)
Ann.DAT 3REFL 3sg.DAT fancy.3pl they.NOM
'Ann fancies them.'

b. * A Ana **nos** le antojamos nosotros.
Ann.DAT 1plREFL 3sg.DAT fancy.1pl we.NOM
'Ann fancies us.' (Rivero 2008:215)

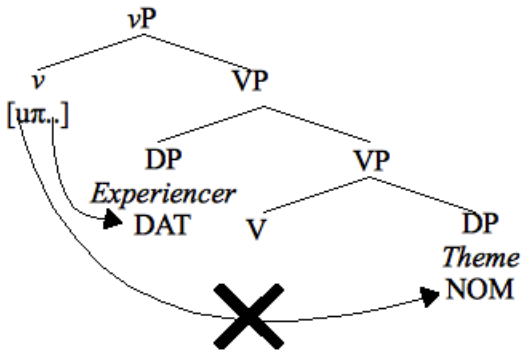
(67) A Ana le apetecemos nosotros (Spanish)
Ann.DAT 3sg.DAT yearn.1pl we.NOM
'Ann yearns for us.' / 'We appeal to Ann.' (Rivero 2008:215)

Although transitive psych verb constructions have a surface external argument, Belletti & Rizzi (1988) argue that cross-linguistically the Experiencer subject of a psych verb merges as an internal argument (VP internally) and c-commands the Theme object, confirmed by Rivero (2008) for Spanish. What this means is that the two arguments of a psych verb like (66) or (67) are underlyingly internal arguments, and the dative Experiencer that becomes the surface subject c-commands the nominative Theme.

I claim that the Quirky Person Restrictions in Spanish psych constructions are parallel to the PCC effects discussed above – they are derived by a violation of Person Licensing. Given the Belletti & Rizzi (1988) structure for psych verbs, the Experiencer is

merged as an internal argument above the Theme and therefore intervenes between the Theme and little *v* and can block the licensing of the lower argument. The restriction is illustrated in (68) where the Experiencer and Theme are π-licensed in their merge positions, and the Theme is blocked from Agree with *v*. Therefore, like the PCC violation in (61)a, the π-probe on *v* can license the higher argument, but is blocked from Agreeing with the lower argument disallowing SAPs and forcing the Theme to be an impoverished 3rd person (e.g. *se* in (66)a). For my analysis, the difference between Spanish Quirky Person Restriction and the PCC is the absence of an external argument merged in spec *v*P in the former construction. Crucially, both constructions share multiple internal arguments underlyingly.

(68) Psych verb QPR as intervention



Although all Spanish psych constructions share a base argument structure (like (68)), only a subset is subject to the Person Restriction (e.g. (67)). Psych verbs showing the Quirky Person Restriction have an "inherent" reflexive nominative clitic, encoded as *se* and *nos* in (66), and Rivero (2008) states that it is the appearance of the reflexive that triggers the restriction. I suggest that non-Quirky psych constructions may involve independent movement of arguments (e.g. for Case) such that a Theme can move to a position where it can license its π-features. Quirky constructions contrastively lack such movement, so that a Theme remains in its unlicensed merge position (compare with Basque psych constructions in the following section 7.2.2). Further investigation of the Spanish data is needed to determine exactly how the types of psych constructions differ in the syntax and what the role of the reflexive clitic is.

Rivero (2008) discusses some analyses of Person restrictions (Sigurðsson 2002, 2004; Stepanov 2003; Anagnostopoulou 2003, 2005) that place Person (or phi) licensors high in the structure, usually in T or the inflectional domain. She asserts that these accounts are inadequate when considering Spanish Quirky Person Restrictions since the restrictions can occur with bare infinitive verbs, which are generally considered to have some kind of defective T that lacks the ability to Agree with the phi-features of an argument. Non-finite T is then not an appropriate licensor of π-features. My view of Person restrictions does not involve T as a licensor and is not affected by the finiteness of a clause or whether T is defective. I have posited little *v* as the center of Person licensing, following Béjar & Rezac (2009), where *v* is local to both an internal and external argument and can Agree with their π-features. The Spanish QPR data then appears to fit with the theory of Person Licensing presented for Ojibwe.

7.2.2 Basque DAT-ABS unaccusatives

Quirky Person Restrictions are not specific to Spanish, but Basque also has a class of psych verbs that restrict the π-specifications of their arguments (in addition to the Person Restrictions discussed in Chapter 6.3.3). Considering the verb *gustatzen* 'liking', (69)a shows that a 3rd person object is grammatical, but (69)b shows that a 1st person object is not. Rezac (2008) identifies the class of psych verbs subject to the Person Restriction as DAT-ABS unaccusatives because the dative Experiencer is generated above the absolutive Theme (evidenced in binding, causativization and wh-fronting). Other verbs, such as *etortzen* 'coming' in (70), do not have this Person Restriction and are contrastively ABS-DAT, showing absolutive over dative c-command.

(69) a. Miren-i gozoki-ak gustatzen zai-zki-o (Basque)
Miren-DAT sweets-the.ABS liking √be-pl-3
'Miren likes candies.'

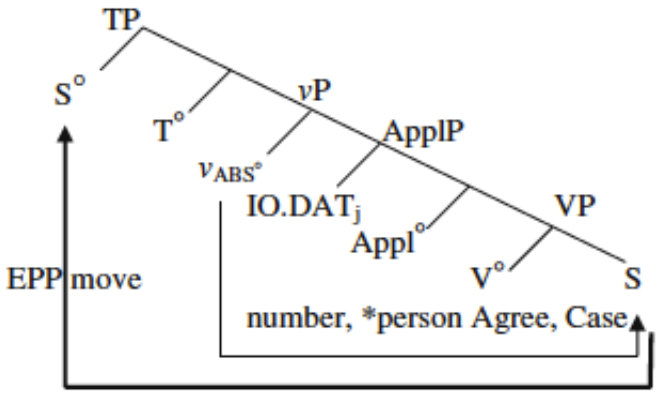
b. *[/??] Ni Miren-i gustatzen n-a-tzai-o
1.ABS Miren-DAT liking 1-TM-√be-3
'Miren likes me.' (Albizu 1997:21)

(70) Ni Kepa-ri etortzen. (Basque)
1.ABS Kepa-DAT coming
'I am coming to Kepa.' (Rezac 2008:73)

Rezac (2008) states that in a DAT-ABS construction there is no way for an unlicensed absolutive argument to move to a position where it can be properly Person Licensed, but it is trapped below the dative argument. If there is movement of the absolutive argument in Basque, then this movement is insufficient to create the needed licensing relationship, according to Rezac (2008:79). In other words, there is no natural syntactic operation available to avoid the violation of Person Licensing, resulting in a Person Restriction for Basque DAT-ABS psych constructions.

Rezac's (2008) analysis is that little *v* is the absolutive Case assigner but also bears a phi-probe that can Agree with person and number features. This probe can license the π-features of the first DP goal it reaches, which will be the higher dative Experiencer shown in (71). The probe can continue past the Experiencer to Agree with the lowest argument, S (i.e. the Theme), and assign it absolutive Case. However, since the π-features have already been checked on *v* it cannot license person on S in (71), and the argument is phi-licensed only by number.

(71) The structure of Basque DAT-ABS verbs (Rezac 2008:79)



Rezac (2008:68) claims that the Person Restriction is defined by Case domains, where the internal arguments check against little *v* for Case, and phi-agree is tied to Case assignment. I suggest that reference to Case is unnecessary, but that the Person

Restriction arises from intervention effects between the arguments and little *v*. As I claimed for the Person-Case Constraint (section 7.1.1), the dative Experiencer (illustrated in (71)) Agrees with the π-probe on *v* and blocks Person Agree with the lower Theme argument, S. Further, the treatment of *v* as checking person on only one argument, and number on another, complicates the analysis of ergative displacement given by Béjar & Rezac (2009) that involves *v* checking with the π-features of an internal and external argument (discussed in Chapter 6.3.1). Again, I claim that Person is independent of other phi-features, like number, which do not play a role in Person Licensing.

In sum, I reject the assumption that the Person Restriction in Basque (or in other similar constructions) is dependent on Case in terms of domains, checking or anything else fundamentally Case based. If we consider Person Licensing to be responsible for Person Restrictions, then we avoid the issues of Case theory licensing Case and associated Person in different steps by different heads. Further, independent Person Licensing explains the appearance of a bundle of properties (see table (41) in Chapter 6.2) that are problematic for standard Case without the need to drastically change our understanding of Case itself.

7.2.3 Icelandic Quirky Subjects

The final Person Restriction I consider is found in Icelandic Quirky Dative Subjects that also occur in psych verb constructions. As Sigurðsson (1991,1996) discusses, quirky DAT subjects do not agree with the verb, which only agrees with nominatives and exhibits default agreement if there is no NOM available. In these constructions, the object can be NOM and trigger number agreement on the verb (72)a, however the object must be 3rd person and cannot be 1st or 2nd person as shown in (72)b.

(72) a. Henni leiddust strákarnier.
her.DAT bored.3pl the.boys.NOM.pl
'She found the boys boring.'

b. Henni *leiddumst/ ?*leiddust/ ?*leiddist við.
her.DAT bored.1pl/ bored.3pl/ bored.dft we.NOM
Intended: 'She found us boring.' (Sigurðsson 1996:1,25)

Sigurðsson (1996) proposes the *Split Agr Hypothesis* (a sub case of the *Split Infl Hypothesis*, Pollock 1989) to separate phi-features into person on AgrS above TP and number on AgrO, below TP. He suggests that subjects can control person agreement by association with AgrS, but objects can only control number by AgrO and not person, restricting the psych objects to 3rd person. Sigurðsson notes that although quirky subjects reside in spec TP and show expected subject behaviour for reflexivization, ECM, and so on, they are likely generated lower in the structure than spec *v*P (i.e. in the lower VP in a Larsonian VP-Shell, Sigurðsson 1996:33). Like psych constructions in Spanish and Basque, Icelandic quirky subjects of psych verbs follow the Belletti & Rizzi (1988) generalization that the subject is merged as an internal argument so that underlyingly there are multiple internal arguments in a construction like (72).

Taking a rough view of the data, Icelandic also lines up with the Ojibwe and Romance data where a Person Restriction arises because there are two arguments merged in the complement of *v*: the nominative object below the dative subject (before raising to spec TP). Again, the placement of the Person licensor on *v* derives the desired restriction, where the DAT argument (like the Experiencer in (68)) intervenes between the NOM argument (Theme in (68)) and the π-probe on *v*. Therefore the NOM object can only be personless, encoded as 3rd person, since it cannot license any π-features with *v*. My view gets at the same intuition as Sigurðsson's (1996) Split Agr Hypothesis, where person agreement is not freely available in the clause and a higher argument can block the agreement of a lower one.

Sigurðsson (1991, 1996) and Taraldsen (1994, 1995) make a point that this Quirky Person restriction only occurs when the NOM object is agreeing with the verb, seen more clearly in bi-clausal examples like (73). (73)a shows the ungrammatical agreement of the matrix verb with the embedded plural argument *við* 'we', but (73)b is acceptable in the absence of agreement. Sigurðsson (1996) suggests that agreeing verbs, like *höfum* 'have' in (73)a, Case license the NOM object with matrix T. The non-agreeing verb *hefur* 'has' in (73)b does not assign Case to the NOM argument, which instead gets Case in the non-finite clause "by an Infl-type element that can be activated as a Case assigner" (1996:27).

(73) a. * þeim **höfum** alltaf fundist [við vinna vel].
them.DAT have-pl always found we.NOM work well
b. þeim **hefur** alltaf fundist [við vinna vel].
them.DAT has-sg always found we.NOM work well
'They have always thought that we work well.'
(Icelandic; Sigurðsson 1996:26-7)

Given Sigurðsson's (1996) view that the embedded argument can enter Agree relations in either the embedded or matrix clause, I give a sketch of my proposal in terms of Person Licensing. Assuming that Person Agree is not always directly tied to Case assignment, as I have claimed, then the constructions in (73) differ based on where the embedded argument *við* 'we' licenses its π-features. In the grammatical form in (73)b there is no matrix agreement for *við*, and I assume that the argument is Person Licensed in the embedded clause by checking with the π-probe on embedded *v*. The ungrammatical construction in (73)a attempts to show agreement with *við* and the matrix verb. I assume that like (73)b, 'we' is properly licensed in the embedded clause in (73)a but that the matrix agreement is ungrammatical because it is impossible. Assuming that the dative matrix subject *þeim* 'they' is merged below *v*P just like all the subjects of psych verbs discussed so far, then *þeim* will intervene between *við* and matrix *v*. Therefore, the form in (73)a cannot be derived because *við* cannot agree with matrix *v*.

I only offer a sketch of Icelandic at the moment, as there has been a large amount of discussion of the agreement facts in this language and a wide range of analyses. I wish to claim that the Person Restrictions found in Icelandic can be viewed in terms of Person Licensing around *v* even though there may be other complicating factors. Further research on Icelandic could reveal to what extent it can be paralleled to a language like Ojibwe and the properties of Person Licensing, but with this brief discussion Icelandic falls in line with the psych constructions in Basque and Spanish in showing a Person Restriction in the context of multiple internal arguments.

7.2.4 Section summary

This section goes beyond the well-known Person Restrictions found with ditransitives, usually labeled the Person-Case Constraint, to show restrictions in other contexts as well.

Some languages show restrictions on π-specifications in transitive psych verb constructions. The Spanish Quirky Person Restrictions discussed by Rivero (2008) show a class of psych verbs that restrict their objects to 3rd person, Basque restricts absolutive objects under dative subjects, and Icelandic restricts nominative objects under dative subjects. Following Belletti & Rizzi (1988) I claim that all of these psych constructions share an underlying structure where both the surface subject and object are merged in the complement of *v*P as internal arguments. I maintain that *v* is the locus of Person Licensing, but can only Agree with argument goals that are strictly local to it (i.e. Defective Intervention). Thus, in the restricted constructions the lower internal argument (i.e. the surface object) cannot license its π-features with *v* across an intervening argument (e.g. a dative subject). Psych constructions show restrictions like ditransitives because they share an underlying structure of multiple internal arguments competing to license their π-features with *v*.

Finally, I turn from the Person Restrictions in Romance languages, Greek, Basque and others to discuss another kind of data related to Person Licensing. The following section considers person sensitive split-ergativity in Dyirbal and Halkomelem Salish. The agreement or marking patterns for arguments varies in these languages depending on whether the arguments are 3rd person or Speech Act Participants, and I argue that person split-ergative languages should also be viewed as Person Licensing languages.

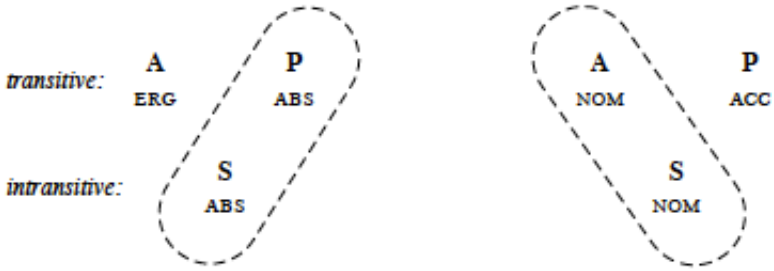
7.3 Person Split-Ergativity

I have argued that languages with Person Restrictions are those that require the π-features on arguments be properly licensed (in the absence of or in addition to Case) and that the realization of the restrictions can be tied to properties of Person Licensing. I place the core Person licensor on little *v,* and arguments that cannot properly Agree with *v* can be restricted to impoverished 3rd person specifications across a wide range of languages. Now I turn to a different kind of Person phenomenon found in ergative languages that change their agreement patterns dependent on the π-specifications of the clausal arguments.

In a nominative-accusative language, there is consistent agreement or marking for subjects in contrast to objects (74)b, while ergative languages treat transitive and

intransitive subjects differently (74)a (Comrie 1978; Dixon 1979, 1994, for example). Transitive subjects are marked one way, and intransitive subjects are marked like transitive objects, generally speaking.

(74) a. Ergative Pattern b. Nominative Pattern (Coon 2010:14)



Split-ergative languages are those that show an ergative pattern in one part of the paradigm, but a non-ergative pattern in another part (Comrie 1978; Tsunoda 1981; Silverstein 1986). Split-ergativity can be triggered by different properties of a construction, such as the aspect, clause type and features of the NP (e.g. π-features; Dixon 1994). In this section I look at person split-ergativity in Dyirbal and Halkomelem Salish which show an ergative pattern with 3rd person arguments, where intransitive subjects and transitive objects pattern together. However, 1st and 2nd person arguments do not follow the ergative pattern but rather are in a "split-pattern" (i.e. non-ergative) such that transitive and intransitive subjects pattern together, a property associated with the nominative rather than the ergative pattern.

I argue that person split-ergativity can be characterized in terms of Person Licensing centered on Agree with *v*. SAP arguments (i.e. 1st and 2nd person) show marking or agreement patterns distinct from 3rd persons because SAPs must always license their π-features and must therefore agree with *v*. It is the Agree relations with *v* that I claim trigger the split from the ergative pattern and show the realization of Person Licensing in these ergative languages.

I discuss the different realization of person split-ergativity in Dyirbal, a dependent marking language, and Halkomelem Salish, a head marking language. An intriguing property of these person splits is that the non-ergative pattern found with SAPs does not disrupt the ergative marking found with 3rd persons, indicating that the two types of

argument marking are overlapping systems, rather than mutually exclusive. I relate the split-ergative facts to the Agree relations between *v* and the arguments, where SAP arguments will trigger Agree with *v* in situations where 3rd persons will not, accounting for their distinct behaviour. My view of person split-ergativity naturally allows for the ergative 3rd person and split SAP patterns to coexist in a clause.

7.3.1 Dyirbal

Dyirbal is a well-known person split-ergative system, where SAPs trigger different nominal marking than 3rd person arguments (characterization of Dyirbal follows Dixon 1994). Considering the examples in (75) the canonical ergative pattern appears to emerge: The intransitive subject in (75)a is unmarked (labeled *absolutive*), as is the transitive object in (75)b, both unlike the transitive subject marked with ergative in (75)b.[138]

(75) a. yabu banaga-n^{y}u (Dyirbal)
mother(ABS) return-NONFUT
'Mother returned.'

b. ŋuma yabu-ŋgu bura-n
father(ABS) mother-ERG see-NONFUT
'Mother saw father.' (Dixon 1994:161)

However, a distinct, nominative-like pattern of nominal marking emerges when only 1st and 2nd person arguments are considered. The examples in (76) and (77) contrast with (75): The intransitive subjects in (76) are also unmarked (labeled *nominative*), but this marking is shared with the transitive subject in (77) (instead of with the transitive object). The transitive SAP object gets *accusative* marking *-na*, separate from any 3rd person or subject marking. The data in (76) and (77) do not display an ergative marking pattern because all subjects are marked identically (i.e. with unmarked pronouns) and objects are

[138] The glosses used in the Dyirbal and Halkomelem examples are taken from the cited sources. Unmarked DPs are sometimes glossed as absolutive (e.g. *yabu* 'mother(ABS)') or as nominative (e.g. *ŋana* 'we(NOM)'), indicated by the ABS or NOM in parenthesis in the gloss, but I identify these DPs as unmarked in the discussion.

marked differentially (i.e. with the suffix *–na*) – a distinct pattern from the ergative data in (75) that marks intransitive subjects like objects (i.e. they are unmarked).

(76) a. ŋana banaga-n^{y}u (Dyirbal)
we(NOM) return-NONFUT
'We returned.'
b. n^{y}urra banaga-n^{y}u
you.pl(NOM) return-NONFUT
'You(pl) returned.' (Dixon 1994:161)

(77) a. ŋana n^{y}urra-na bura-n (Dyirbal)
we(NOM) you.pl-ACC see-NONFUT
'We saw you(pl).'
b. n^{y}urra ŋana-na bura-n
you.pl(NOM) we-ACC see-NONFUT
'You(pl) saw us.' (Dixon 1994:161)

The above data shows a switch from ergative with 3rd person arguments to a split-pattern (i.e. nominative-like) with SAPs. However, when SAPs and 3rd persons co-occur in a clause they do not affect the marking of their co-argument: 3rd person consistently follows the ergative pattern, and SAPs consistently follow the split-pattern, meaning the two patterns can coexist in a clause. Consider the data in (78) and (79). (78) has a 3rd person subject marked as ergative with *–ŋgu*, and a 1st person object that is marked as accusative with *–na*. (79) has two unmarked nominals, the nominative 1st person transitive subject and the absolutive 3rd person object. This data shows that the presence of an SAP argument does not change the marking for 3rd persons since, for example, the 3rd person subject in (78) does not get (unmarked) nominative, and the 3rd person object in (79) does not change to some kind of (marked) accusative. Instead 3rd persons are marked according to the ergative pattern and SAPs are marked by the split-pattern.

(78) ŋana-na ŋuma-ŋgu bura-n (Dyirbal)
we-ACC father-ERG see-NONFUT
'Father saw us.' (Dixon 1994:130)

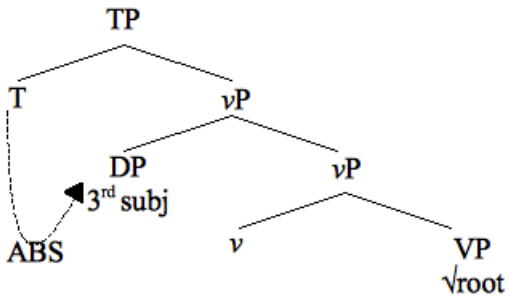
(79) ngadya bayi yara balgan (Dyirbal)
I(NOM) NCI.there(ABS) man(ABS) hit.NFUT
'I hit the man.' (Dixon 1972:73)

These two systems of marking do not interact with each other but are dependent on the π-specification of the individual arguments. The difference in behaviour between SAPs and 3rd persons is familiar from the discussion of Person Restrictions above and from the Ojibwe Inverse System in Chapter 2 (e.g. local/non-local theme-signs). As it has been proposed for Dyirbal (e.g. Richards 2008), suppose SAPs are personful arguments that therefore require Person Licensing, while 3rd persons are syntactically personless and have no π-features to license. Discussing only the simple paradigms of nominal marking in Dyirbal exemplified above, I propose that the notion of Person centered around a probe on little *v* can also be applied in this language. SAP arguments will always have to Agree with *v* to satisfy Person Licensing, but 3rd person arguments lack any π-specification and will not Agree with the π-probe on *v*.

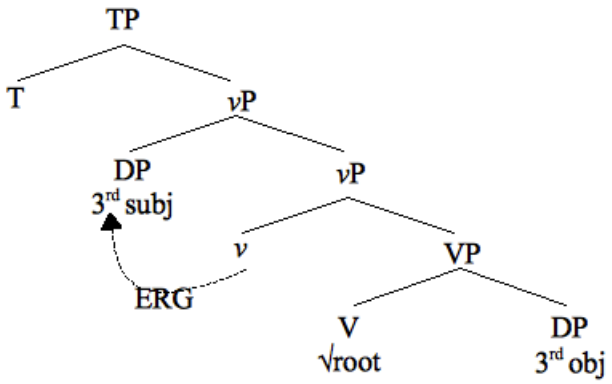
First consider the sketches of Dyirbal intransitive and transitive clauses with only 3rd person arguments that follow an ergative marking pattern in (80) (dotted line arrows indicate Agree relations). Following Legate (2002) and Aldridge (2007), ergative case in Dyirbal is inherent and assigned by *v* to transitive subjects, and absolutive case in intransitives is assigned by T to the sole argument of the clause.[139] (80)a corresponds to (75)a with an unmarked (absolutive) 3rd person subject of an intransitive, and (80)b corresponds to (75)b with an ergative marked 3rd person subject and unmarked 3rd person object. What will be of importance for Person Licensing is that it is only the 3rd person transitive subject that enters an Agree relation with *v*, to get inherent ergative case, and the intransitive 3rd person subject is not assumed to Agree with *v* for a case value.

[139] I leave out the discussion of absolutive case assignment to a transitive object, which is proposed to vary across ergative languages (e.g. Aldridge 2004; Legate 2008).

(80) a. Intransitive with 3rd person

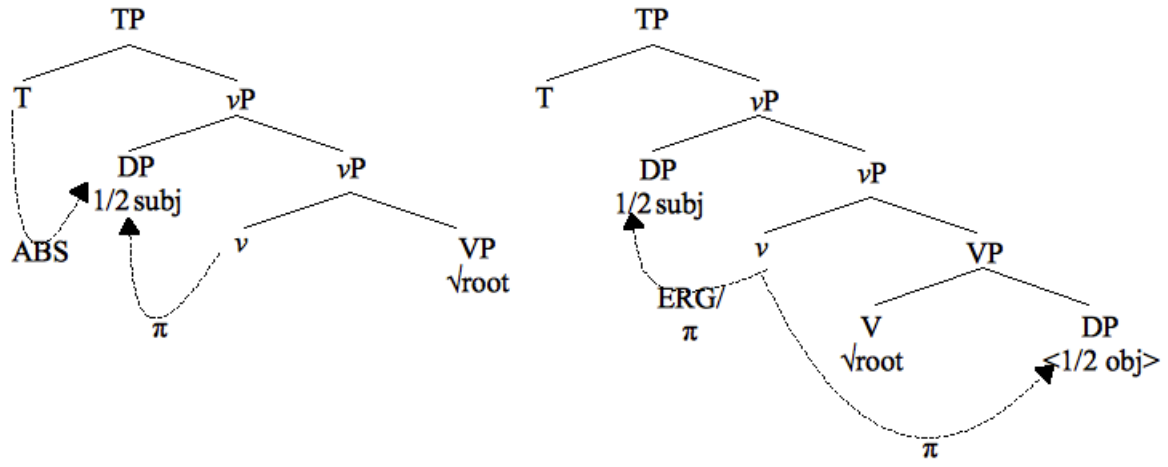


b. Transitive with 3rd person



Now I turn to the derivations involving 1st and 2nd person arguments, which I claim will follow the same case assignment pattern as 3rd person in (80), but will differ in terms of person agreement relations. The 3rd person arguments in (80) require Case values to satisfy the Case Filter, but do not require Person Licensing because they bear no relevant π-features. On the other hand, 1st and 2nd person arguments in Dyirbal must also receive a Case value, but have the added requirement of being Person Licensed (i.e. entering an Agree relation with a π-probe) because SAPs bear specified π-features. I maintain that little *v* is a Person licensor in Dyirbal, as it is in the other Person languages, and SAPs can license their features by Agree with *v*. Consider the trees in (81) illustrating Dyirbal derivations with SAP arguments. First looking at case assignment, (81) is identical to (80) where the intransitive subject gets absolutive from T (81)a, and the transitive subject gets ergative from *v*.

(81) a. Intransitive with SAPs b. Transitive with SAPs



What is different between (80) and (81) is Person Licensing. Little *v* in (81) must Agree with the SAP arguments to license their specified π-features, indicated by the π-arrows in the trees. For example, the SAP intransitive subject in (81)a Agrees with *v* as does the transitive SAP subject in (81)b to get both ergative case and π-licensing. SAP subjects share an Agree relation with *v* unlike 3rd subjects that do not – only transitive 3rd person subjects have an Agree relation with *v* to get ergative, and intransitive 3rd subjects have no Agree relation with *v*. The Agree relations with *v* line up exactly with the different marking of SAP and 3rd person arguments. Suppose subject marking spells-out an Agree relation with *v*, then because all SAP subjects Agree with *v* (whether for Person or Case) they are marked the same as unmarked (nominative) pronouns. On the other hand, only 3rd person transitive subjects Agree with *v* (for Case) and this relation is spelled-out as ergative marking, but intransitive 3rd subjects are marked differently (or rather, are unmarked) because they have no Agree relation with *v*.

Person Licensing relates to arguments in merge position and does not trigger movement of arguments, so we expect transitive and intransitive subjects to pattern together with respect to Person. Case, however, does not necessarily map to merge positions so there can be variation in the treatment of different types of subjects. The variation dependent on Case is expected with (personless) 3rd persons and not SAPs, which are subject to the Person system. The (unattested) opposite split of what we see in

Dyirbal – where 3rd subjects pattern together, but SAP subjects do not – is unexpected and underivable in my system.

The differential marking of Dyirbal objects can be viewed in the same way because SAP objects also bear π-features that need to be licensed and therefore trigger Agree relations with *v* that might not be otherwise instantiated in the derivation. The accusative marking on SAP pronouns could be the spell-out of Agree of *v* with an object. Note that my view of the person split does not take seriously the labels of nominative or accusative as actual case markings on 1st and 2nd persons (see (76) and (77)). I assume that SAPs get ergative and absolutive case like their 3rd person counterparts, and that "nominative" marking actually targets SAP subjects, and "accusative" marking targets objects that Agree with *v*.

Briefly returning to the data in (78) and (79), my account of Dyirbal split-patterning predicts that 3rd person and SAP marking will not affect each other but that the ergative and non-ergative patterns should coexist. The Agree relations triggered by one argument do not change or block the Agree relations of another argument in a monotransitive and I characterize the different argument marking by relations with *v*, which are obtained independently.

My view of person split-ergativity as Person Licensing shares the notion that SAPs institute special syntactic relations that 3rd persons do not (Richards 2008; Coon 2012) but I center the relations around little *v* like Person Licensing in other languages discussed above. Standing back from a specific analysis of Dyirbal, it seems clear that there is a special relationship between SAP arguments and the clausal structure that is lacking with 3rd persons and gives way to the split-patterning in nominal marking. The type of split-ergativity seen in Dyirbal illustrates the effects of Person Licensing in a unique way from, say, Person Restrictions in Romance languages, but can be accounted for by the same mechanisms – namely Person Licensing of arguments by *v*. Next I look at a different realization of person split-ergativity found in Halkomelem Salish and claim that this data indicates a need for Person Licensing as well.

7.3.2 Halkomelem Salish

In this subsection I look at data from Halkomelem Salish presented in Wiltschko (2006), which shows another realization of person split-ergativity as verbal agreement. Although

I do not offer a specific account for the person agreement in this language, I argue that Halkomelem Salish is a Person Licensing language and shows a realization of person split-ergativity that is very different from Dyirbal. However, Halkomelem, like Dyirbal, shows the overlapping ergative and non-ergative patterns with 3rd persons and SAPs respectively. The overlap of agreement patterns is predicted by my approach to Person Licensing as specifically interacting with arguments bearing highly specified π-features (i.e. SAPs).

Like Dyirbal, 3rd persons in simple Halkomelem clauses follow what looks like an ergative pattern: There is verbal agreement with a transitive subject, *-es* in (82)a (i.e. ergative, seen also in (85)), but objects and intransitive subjects trigger no agreement (82)b (i.e. absolutive).

(82) a. q'ó:y-t-es te Strang te sqelá:w (Halkomelem Salish)
kill-TRANS-3subj DET Strang DET beaver
'Strang killed the beaver.'

b. í:mex te Strang
walking DET Strang
'Strang is walking.' (Wiltschko 2006:197)

In contrast, both transitive and intransitive SAP subjects trigger subject agreement on the verbal complex, seen in (83) and (84) (like nominative). SAP subjects trigger the same agreement, suggesting a more nominative-accusative like pattern, unlike 3rd persons with the ergative pattern where intransitive subjects and objects pattern together. Further, SAP objects trigger agreement on the verb, seen in (85), while 3rd person objects are unmarked (see (82)a).

(83) a. máy-t-tsel (Halkomelem Salish)
help-TRANS-1sg.subj
'I help him.'

b. máy-t-chexw
help-TRANS-2sg.subj
'You help him.' (Wiltschko 2006:199)

(84) a. yó:ys-tsel (Halkomelem Salish)
work-1sg.subj
'I work.'
b. yó:ys-chexw
work-2sg.subj
'You work.' (Wiltschko 2006:199)

(83) and (85) show the co-occurrence of the ergative and split patterning because there is a combination of SAP and 3rd person arguments (like Dyirbal in (78) and (79)). For example, (85)a shows ergative agreement with the 3rd person subject co-occurring with 1st person object agreement (in contrast to no object agreement with 3rd person, (82)a). Similarly, (83)a has 1st person subject agreement *–tsel* (also found on intransitive subjects (84)a) and no agreement with the 3rd person objects. SAPs and 3rd persons follow two different agreement systems and these can co-occur without affecting the agreement of co-arguments in a clause.

(85) a. may-th-óx-es (Halkomelem Salish)
help-TRANS-1sg.obj-3subj
'He helps me.'
b. may-t-óxw-es
help-TRANS-1pl.obj-3subj
'He helps us.'
c. may-th-óme-tsel
help-TRANS-2sg.obj-1sg.subj
'I help you.' (Wiltschko 2006:199)

Wiltschko (2006) derives the Halkomelem ergative pattern by positing that transitives and intransitives have different argument structures. A transitive introduces its external argument in spec v_{erg}P,[140] but intransitives (whether unaccusative or unergative) show evidence that the sole argument is always introduced VP internally. It is only a transitive subject that occupies spec v_{erg}P, and the ergative 3rd agreement *–es* in (82)a spells-out from v_{erg}. Wiltschko further claims that intransitives lack v_{erg} altogether, meaning ergative agreement from v_{erg} is impossible in intransitives and only found in transitive clauses.

Wiltschko (2006) claims that SAPs do not follow the ergative agreement pattern because SAP agreement is in C and is independent of the presence or absence of v_{erg}. C is consistently present in transitive and intransitive clauses, unlike v_{erg} which controls ergative agreement in transitives, but is absent in intransitives. Wiltschko shows that the SAP agreement morphemes are in C by their complementary distribution with other complementizers (bolded in (86)), and that they appear in different morphological slots than ergative *-(e)s* morpheme (87).

(86) skw'áy [**kw'**-el-s(***-tsel**) kw'éts-lexw]
impossible [COMP-1sg.POSS-NOM(-1sg.subj) see-TRANS]
'I can't see it.' (Halkomelem Salish; Wiltschko 2006:214)

(87) b. li-**tsel** máy-t (Halkomelem Salish)
AUX-1sg.subj help-TRANS
'I helped him.' (Wiltschko 2006:213)
a. * li-**s** máy-t
AUX-3subj help-TRANS
'He helped someone.' (Wiltschko 2006:213)

[140] I identify Wiltschko's (2006) "*v*" as v_{erg} and claim that it is distinct from the little *v* I claim bears a complex π-probe. I assume both transitive an intransitive clauses have the core Person Licensor *v* (although intransitives lack structure found in transitives, as Wiltschko claims). v_{erg} may be parallel to the TransP I proposed for Ojibwe that categorizes a verbal root as transitive and introduces an argument (see Chapter 3.1.1).

I claim that Halkomelem is subject to Person Licensing and could involve checking of π-features against *v*. Like Dyirbal, the separate agreement patterns of 3rd persons and SAPs can coexist in Halkomelem, as in (83) and (85): 3rd person objects are unmarked and unaffected by SAP subjects, and 3rd person transitive subjects trigger *–es* ergative agreement. There is no effect of the SAP arguments on 3rd person agreement or vice versa meaning the two systems must overlap. I argue that the distinct agreement associated with both SAP subjects and objects is due to their need to license their specified π-features and be tied to Agree relations with *v*, which may be reflected in the morphology as SAP object agreement and subject clitics. The Halkomelem verbal agreement is not straightforwardly accounted for by the spell-out of Person on *v*, but the fact that both subject and object SAP agreement is overt suggests special π-agreement that is absent with the 3rd person arguments. Halkomelem is another realization of person split-ergativity but maintains the pattern of SAPs marking subjects the same across transitives and intransitives, and shows SAP object agreement like Dyirbal.

Further research on Halkomelem Salish is required to determine how well it might fit into the Person Licensing view, but Salish languages show Person Restrictions (e.g. ban on 3rd subjects with 2nd objects in Halkomelem Salish, Wiltschko & Burton 2004; psych verbs in Lummi Salish, Jelinek & Demers 1983) and have the potential for further evidence of Person Licensing properties. Halkomelem presents a challenging set of morphology, and person split-ergativity is a heterogeneous phenomenon on the surface making it difficult to consistently characterize. However, I maintain that person split-ergativity should be related to Person Licensing because there is consistency in the differential marking of 3rd person and SAP subjects, which is exactly the kind of behaviour found in Person Restrictions.

This section further extends the reaches of Person Licensing from the Inverse System and Person Restrictions to split-ergativity, which can be sensitive to the π-features of clausal arguments. I argue that person splits can be analyzed as relations with little *v* that I posit as the locus of Person Licensing across languages. Further research is needed to determine exactly how the checking of Person with *v* should interact with the assignment of Case and the resulting morphological spell-out, but person split-ergativity

shows the expected disparate behaviour between SAPs and 3rd persons in Person Licensing languages.

7.4 Chapter Summary

I have presented Person Restrictions in several different languages, which I have argued fall under the proposal given for the Ojibwe Inverse System as a realization of Person Licensing. The Person-Case constraint and Quirky Person restrictions with psych verbs and dative subjects all share an underlying structure with two arguments merged below *v*. Accepting that little *v* (rather than T, or higher heads) is the locus of Person licensing allows for a unified view of these restrictions alongside the Inverse System, where *v* can encode the π-features of an internal and external argument and can create intervention effects between multiple internal arguments. It is always the lower of two internal arguments that is restricted in Person (i.e. to 3rd person), and repairs for this class of constructions consistently obviate the intervention between arguments, for example, by displacing them or removing them as licensing goals. I also considered data from ergative languages that show a person based split in the marking of DPs or verbal agreement. I argue that person split-ergative languages like Dyirbal and Halkomelem Salish fall within the scope of Person Licensing and the use of different agreement patterns for 3rd persons versus SAPs can be accounted for by the special Agree relations SAPs have with *v* to license their π-features.

I claim that the multiple checking of the complex π-probe on *v* is by no means Ojibwe or Algonquian specific, but is found in languages exhibiting Person Restrictions, although other languages generally lack transparent person morphology. Finally, the languages in this Chapter show the robustness of Person Licensing alongside Case Licensing, such that a Case plus Person language requires that its DP arguments are properly licensed both by Case and Person and exhibit properties associated with each type of licensing.

Summary of Part Two

In Part Two, I introduced the notion of Argument Licensing as an alternative universal to Case Licensing in order to account for the variation in argument distribution cross-linguistically. Although Case is pervasive in many languages, I claim that it is not universal itself but instead is an instantiation of an underlying universal, Argument Licensing, repeated in (88). Argument licensing can differ between languages depending on what the content of [β] is: [D] for Case, [π] for Person, and [D] with [π] for Case plus Person Licensing languages (i.e. Romance languages).

(88) **Argument Licensing**

A DP bearing a (certain type of) feature (or feature complex), [β], must enter into an Agree relation with a head bearing an unvalued feature [uβ].

It is common in the literature for Person to be parasitic on Case, such that the checking of both features occurs hand in hand and "Person Licensing" is a type of Case. I have argued against this view showing data from a myriad of languages, which either exhibit Person in the absence of Case (such as Ojibwe), or show completely different systems and heads responsible for Person and Case (such as Inuit and Basque). Treating Person as a Case phenomenon across the board gains no insight into the underlying mechanisms of certain languages. I have claimed that a simpler view of Case and the consideration of Person apart from Case allows for a clearer understanding of argument distribution across many languages.

The licensing of arguments by Case or Person exhibits different bundles of properties that I claim are due to the different nature of [D] and [π] features. [D]-feature licensing is categorial and involves Case valuation, making Case Licensing a one-to-one process that must interact with all DPs. On the other hand, [π]-features are valued complexes of features (organized by entailment) that allow for a many-to-many type of licensing and the ability to leave DPs that are lacking any π-features unlicensed by

Person. I claim that we see the properties of Person as separate from Case not only in Ojibwe but also across many languages that show Person Restrictions that are not logically due to the Case licensing of arguments.

I propose that much can be gained by taking a step back from Case Theory in the consideration of how arguments are controlled in the syntax. Either we can extend Case to every situation where it no longer looks like the standard we began with (e.g. Chomsky 1981), or we can separate out types of Argument Licensing that require the syntactic licensing of arguments but can do so in different but internally consistent ways. Starting with the view from Algonquian languages is very useful because of the transparency of the person morphology, which gives a better view into the underlying mechanics of Person Agree in the syntax. In particular, Ojibwe shows the ability of a single head (little *v*) to Agree with the π-features of multiple goals and its compliance to strict locality. Other languages, such as French, do not have this morphology but line up in terms of the syntactic effects (e.g. the Person-Case Constraint) of *v* as a complex Person licensor.

The following Chapter returns to the morphology of the Unspecified Agent Construction (previously discussed in Chapter 5.2.3). I also briefly consider some data that show further realizations of Argument Licensing (88) in terms of Gender and Aspect features before concluding this thesis.

Chapter 8 Extensions of Licensing and Conclusions

This thesis deals with flavours of Argument Licensing, attempting to get at the underlying characteristics of argument distribution. I have put forth the notion that Standard Case is inadequate to properly describe the licensing of arguments in certain languages, even though Case is fully robust in many well-studied languages. Looking first at Ojibwe and other Algonquian languages, I argued that Person Licensing is a realization of an underlying universal of Argument Licensing in its own right, to the exclusion of Case. Person Licensing is subject to a distinct bundle of properties that differentiate it from standard Case. I argue that the claim of Béjar & Rezac (2009) that the locus of Person Agree is on little *v* is correct and I implement specific details of how the set of entailed π-features on *v* can license π-features on arguments local to *v*. This Chapter returns to the discussion of some Ojibwe morphology, and explores some possible realizations of Argument Licensing apart from Case and Person.

First, in section 8.1 I provide a complete discussion of the morphology of the Unspecified Agent Construction in Ojibwe, which I argued is not quite equivalent to the Passive (Chapter 5.2.3). This construction appears with the transitive animate theme-signs, which poses a puzzle for the spell-out rules I presented in Chapter 2. I offer an analysis of the Unspecified Agent Construction to place it in line with the rest of the paradigms in Ojibwe.

Second, section 8.2 looks at Bantu languages, which appear to lack Abstract Case (like Ojibwe) but still require the syntactic licensing of arguments, potentially realized as Class Licensing. I also consider the interaction of object marking and aspect in Icelandic and Finnish, suggesting that arguments can also be licensed by aspectual features.

Finally, in section 8.3 I offer my concluding remarks on the role of Person Licensing, Case and the proposed universal of Argument Licensing that is meant to underlie them. I maintain that certain languages are not adequately accounted for by Case alone and must be reconsidered to discover what deeper mechanisms control their surface forms in terms of the distribution of arguments. I do not throw out the theory of Case but rather question how far it should reach and rename its underlying function as Argument Licensing. The licensing of arguments is fundamental to the realization of natural

language and is complex both within and across languages. That complexity begs for room to be realized in its variations, and not necessarily be made to fit into the original version of argument licensing proposed.

8.1 The Unspecified Agent Construction in Ojibwe

I return to the discussion of the Unspecified Agent Construction (UAC) in Ojibwe, which has been likened to the Passive (discussed in Chapter 5.2.3). I reconsider the verbal agreement found with the UAC because it uses both transitive and intransitive morphology, but co-occurs with the transitive animate theme-signs. The spell-out of theme-signs in the partially intransitive UAC is not straightforwardly extended from the same theme-signs used in the core Inverse System.

8.1.1 Morphology of the Unspecified Agent Construction

Here I look at the details of the morphology found with the Unspecified Agent Construction, and propose an analysis in the following subsection. The UAC involves an underspecified Agent, translated as a passive or general animate 'someone,' exemplified in (1). Unlike an English Passive, the unspecified agent cannot be included anywhere in the clause, seen in (2)a (compare with 'The Doctor was hit (by Jackie).'). The overt realization of an agent is only grammatical in a normal transitive, like (2)b.[141]

(1) a. n-waabm-igo-o
1-see-INV(NL)-X
'I am seen.' / 'Someone sees me.'

b. g-waabm-igo-o
2-see-INV(NL)-X
'You(sg) are seen.' / 'Someone sees you(sg).' (Valentine 2001: 272)

[141] I the morpheme *–o* marks the UAC, and is glossed as 'X' referring the unspecified Agent which is referred to as X by Valentine (2001).

(2) a. waabm-aa (*Piye-n) (Algonquin)
see-DIR(NL) Peter-OBV
'She is seen (*by Peter).'
b. Piye-n o-waabmigo-n
Peter-OBV 3-see-INV(NL)-OBV
'Peter sees her.' (P.D., A.S., J.T. April 29, 2012)

The UAC is built on a transitive animate (VTA) stem, e.g. *waabm* 'see X' and not an intransitive stem (i.e. animate intransitive *waabid* '(be able to) see/X can see'). UAC verbal complexes take transitive animate theme-signs: the non-local inverse *–igw* when the specified argument is 1st or 2nd person (1), and the non-local direct *–aa* if the specified argument is an animate 3rd person (3).

(3) a. waabm-aa(-w)
see-DIR(NL)-3
'He is seen.' / 'Someone sees him.'
b. waabm-aa-w-an
see-DIR(NL)-3-OBV
'He(obv) is seen.' / 'Someone sees him(obv).' (Valentine 2001: 272)

The UAC morphology is a mix of the transitive, like the VTA stem and theme-signs, and intransitive paradigms, like the suffixal 3rd person agreement[142] *–w* shown in (3) and (4), in both the conjunct and independent orders.

(4) a. [[waab-m-aa]-sii-w-ag] *Negative independent*
see-TRANS-DIR(NL)-NEG-3-3pl
'They are not seen.' / 'No one sees them.'
b. [[waab-m-aa]-si-w-ind-waa] *Negative conjunct*
see- TRANS-DIR(NL)-NEG-3-3conj-pl
'They are not seen.' / 'No one sees them.' (Valentine 2001:291, 299)

[142] The regular transitive independent 3rd person agreement is realized as a person proclitic.

In fact, the verbal complex of an Unspecified Agent Construction is distinctly split between its transitive stem and intransitive suffixal agreement. The bracketing in (4) points out the division of the transitive domain within the intransitive domain. What appears to be at the border of these two domains is the so far unidentified *-o* suffix that is unique to the UAC. The *-o* suffix only overtly occurs when the specified argument is 1st or 2nd person (1), and is not seen when the specified argument is 3rd person (3).[143] However, the absence of *–o* in (3) may be coincidental in that *-o* is always deleted when adjacent to a long vowel like the *-aa* theme-sign that occurs in the 3rd person contexts (3). It is possible that an example such as (3)b is actually /waabm-aa-**o**-w-an/ becoming [waabmaawan], and that this *-o* suffix is a marker of the UAC or the unspecified argument, labeled X. I assume that *-o* marks the UAC and is syntactically present even when phonologically deleted.

Below I propose a potential analysis of the UAC morphology to account for the spell-out of the direct and inverse non-local theme-signs – which are otherwise related to fully transitive paradigms – and the switch from a transitive stem to intransitive agreement. It is not the case that the unspecified Agent in these constructions is syntactically absent. It cannot be doubled, even by an oblique phrase, and it shows some reflexes in the morphology that track the arguments of a clause (e.g. the theme-signs). The trouble is determining exactly how present the unspecified Agent is in the syntax and

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[143] The *-o* suffix in (i) looks like the *-w* '3rd person' intransitive agreement (where /igw/+/w/ becomes [igoo]), but I argue the two are distinct since they appear in different positions. The 3rd intransitive agreement appears outside negation *–si(i)*, seen in a normal intransitive in (i)b (compare also with (4)), while *-o* is to the immediate right of the theme-sign suffix and to the left of negation as in (i)a.

(i) a. n-[[waabm-igo]-**o**-siin] *Negative independent transitive animate*
1-see-INV(NL)-X-neg
'I am not seen.' / 'No one sees me.'

b. boodwe-sii-**w**-an *Negative independent animate intransitive*
make.fire-neg-3-obv
'He/she does not make fire.' (Valentine 2001:291,234)

what kinds of features it might bear to be sufficiently syntactic but unspecified. The following subsection presents the beginning of an account to address these issues.

8.1.2 Proposal: Syntactic despecification

The proposal in this section looks at different components affecting the morphology of the Unspecified Agent Construction. First, I maintain that the unspecified Agent is syntactically present in a non-oblique position and that it is not fully unspecified as shown by its direct effect on π-agreement. Second, I discuss the puzzle of why both direct and inverse theme-signs are used in the UAC, indicating that the unspecified argument not only bears π-features but that these features entail or outrank the π-features of other animate 3rd persons. Third, I look at how the change from transitive to intransitive agreement morphology might be schematized, arguing that there is a suffix, *-o*, that marks the UAC at the boundary between the transitive and intransitive derivation. This suffix detransitivizes the construction, or deletes features of the Agent so it cannot undergo any further Agree operations. I argue that my analysis of the derivation of theme-signs given in Chapter 2 can be upheld, such that the UAC also involves the multiple checking of arguments with a complex π-probe on *v*.

First I posit that the unspecified agent, call it X (marked by *-o* on the verb), is not syntactically absent because the construction is transitive at the stem level where arguments are merged, and X cannot be doubled or replaced by an overt DP (seen in (2)). The X argument should be a kind of *pro* satisfying the selectional requirement of the verb for an external argument. Further, X represents an animate unspecified Agent and is not inanimate.

I argued in Chapter 3.1 that all animate arguments in Ojibwe bear interpretable π-features, but inanimate arguments do not and this accounts for the differential agreement found between animates and inanimates. I propose that X arguments in the UAC must have some kind of π-features encoding their animacy, although they are not overtly specified, and allowing them to relate to verbal π-agreement to an extent. The X argument bears a π-feature, but it is not of the same kind as specified arguments. Consider the different marking between a normal transitive animate (5)a and the UAC (5)b, both involving only animate 3rd person arguments.

(5) a. w-waabm-aa-n
3-see-DIR(NL)-OBV
'He(prox) sees him(obv).'

b. waabm-aa(-w)
see-DIR(NL)-X-3
'He is seen.' / 'Someone saw him.' (Valentine 2001: 272)

The transitive in (5)a has a 3rd person prefix, a VTA stem, and a direct non-local theme-sign. The UAC version in (5)b is similar but not identical: the same stem and direct theme-sign are used, however the person agreement is suffixal *–w*, relating to the intransitive paradigm, as mentioned above. Another important detail is that (5)b with a 3rd person internal argument and the animate unspecified Agent does not trigger obviation which is otherwise obligatory with two animate 3rd persons, seen in (5)a. While X bears some kind of π-features, and 3rd person is the reasonable assumption, these features must be underspecified to an extent that they do not require the discourse licensing of the system of obviation that is otherwise obligatory.

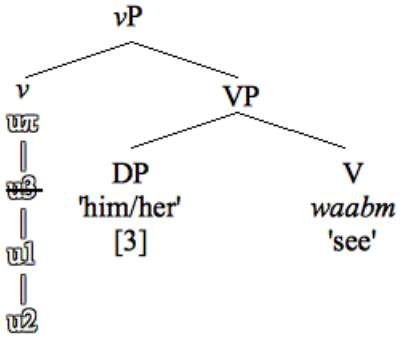
The second component for the account of the UAC is how to derive the appropriate VTA theme-signs that are found in these constructions. Surprisingly, it is not just one theme-sign that is used as a kind of placeholder, but rather we find a consistent alternation between the use of the non-local direct and inverse theme-signs that holds across the UAC in the independent and conjunct orders. The non-local direct theme-sign is used when the specified argument is 3rd person (proximate or obviative), *waabmaa* 'He(prox) is seen,' from (3)b, and the non-local inverse theme-sign is used when the specified argument is a Speech Act Participant, *gwaabmigoo* 'You are seen,' from (1)b.

The derivation of the direct and inverse theme-signs in the UAC is a puzzle for my account because I extensively argue that the theme-signs are the spell-out of Person Agree with a complex π-probe on little *v*, and this Agree is sensitive to the relative ranking (or entailment) of the π-features. A derivation of a direct transitive animate construction (spelling out *–aa*) is shown in (6): *v* Agrees with both the 3rd person internal argument and the 1st person external argument. Little *v* spells-out with a direct theme-sign because the external argument outranks the person specification of the internal argument

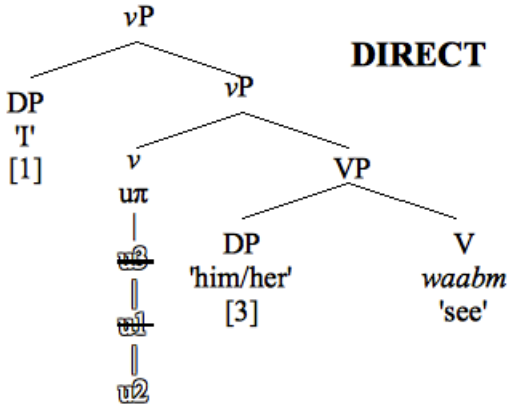
(encoded in the complex probe on *v*) – a situation reflected in my system by the checking of only unentailed features on the complex probe (see full discussion in Chapter 2).

(6) n-waabm-aa
1-see-DIR
'I see him/her.' (Valentine 2001:272)

a. Cycle 1: IA Goal



b. Cycle 2: EA Goal



The problem that arises with the UAC is that it implies that the unspecified argument bears a π-specification that outranks 3rd person animates (that bear [3] or [π]) in order to get a direct theme-sign (e.g (3)). I predict that the UAC should involve a derivation like that in (6), where the external argument checks a more highly specified feature on the *v* probe than a 3rd person in examples such as (3). The same issue is not found with 1st and 2nd person internal arguments in the UAC. An unspecified X argument is not so highly specified that it can outrank an SAP because the UAC with 1st and 2nd persons uses the inverse theme-sign (e.g. (1)), showing that the Person specification of X must be outranked by the features [1] and [2]. Valentine (2001) proposes that Ojibwe relates to the hierarchy in (7) that includes X ranking between the SAPs and 3rd persons.

(7) Participant Hierarchy: 2 > 1 > **X** >3 proximate > 3 obviative > Inanimate
(Valentine 2001:268)

I suggest that the ranking in (7) is somewhat on the right track. It acknowledges the animacy requirement on the unspecified Agent, and X is differentiated from other 3rd person animates because it does not require a proximate or obviative marking. It is possible for X to apparently "outrank" a proximate 3rd person because it does not need to license a discourse role (e.g. proximate or obviative) and remains outside that system.

The third component of the analysis of the UAC morphology addresses the switch from a transitive stem to an intransitive one. The UAC is marked by the suffix *–o,* overtly seen in (8)a with SAPs, and that I suggested is present in the 3rd person versions as in (8)b: because the 3rd person UAC inserts the long vowel direct theme-sign *-aa*, the suffix *-o* that comes to the immediate right of the theme-sign slot cannot be phonologically realized (i.e. is deleted or alternates with a Ø allomorph).

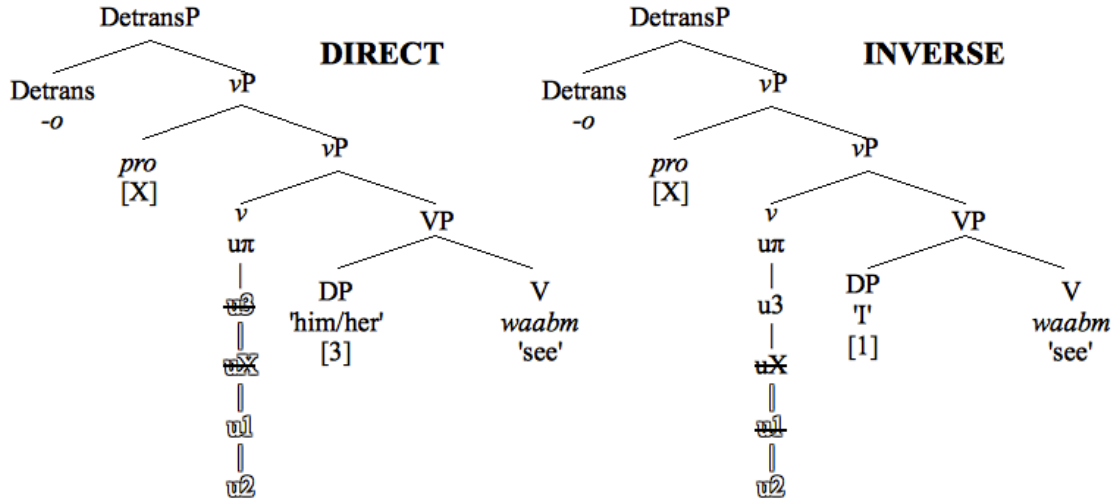
(8) a. n-[[waabm-igo]-**o**-siin-min]
1-see-INV(NL)-X-NEG-1pl
'I am not seen.' / 'No one sees me.'

b. [[waabm-aa](-**o**)-sii-w-ag]
see- DIR(NL)-X-NEG-3-3pl
'They are not seen.' / 'No one sees them.' (Valentine 2001:291)

I propose that this *-o* suffix, which marks the UAC, is a kind of detransitivizer merging above the Agent in spec *v*P. It may delete the π and D features on the X argument so that it cannot enter any other Agree relations in the derivation, and makes the verbal complex intransitive so that only the specified internal argument is seen for higher agreement.

The schematic derivations are shown in (9). I have encoded the unique π-specification of the unspecified agent as [X] in the entailment relationship found on the *v* probe between the SAPs and 3rd persons. Another way to look at these derivations is that an X argument bears a [3] feature, normally associated with proximate, but differs because it does not need to be licensed for proximate and therefore remains unmarked with respect obviation.

(9) a. UAC with 3rd person (3)a b. UAC with an SAP (1)a



Constructions like (9)a occur with the direct non-local theme-sign *–aa* because there are 3rd persons involved and the internal argument does not entail (or outrank) the features of the external argument. (9)b gets the non-local inverse theme-sign because 3rd features are involved in the external argument but the internal argument entails (or outranks) the features of the Agent. After the arguments are introduced, but before they undergo any other agreement (e.g. for number, higher person slots, or proximate/obviative discourse licensing) the UAC is marked by the *-o* suffix in what I have labeled a Detransitive projection in (9). This head somehow absorbs features of the Agent disallowing it from being active in higher agreement, thereby marking the rest of the derivation as intransitive despite the introduction of two clausal arguments within the *v*P.

8.1.3 Section Summary

The Unspecified Agent Construction in Ojibwe is curious in its morphological makeup and interaction with π-Agree. The issues arising with UAC morphology are the change from a transitive stem to intransitive morphology, the interaction of the unspecified argument with π-agreement and the ranking of X's π-features between other 3rd persons and SAPs.

My analysis takes seriously the evidence that the unspecified external argument in the UAC is syntactically present, but is somehow masked in the derivation so that it cannot be overtly realized. The data give the impression that these unspecified Agents are

not completely unspecified when they enter the derivation and act as if they bear π-features. Unspecified Agents are necessarily animate, and I have argued that only inanimate arguments are void of π-features in Ojibwe. Further, because unspecified X arguments have no relation to discourse they are not required to be licensed within the system of obviation that is otherwise obligatory for animate 3rd person. Because of these facts, X bears 3rd π-features and acts as if it outranks other 3rd persons (but not SAPs), being unmarked in terms of the discourse.

The view of the UAC presented maintains that this construction is not a counterexample of the analysis I have in Chapter 2 for the transitive animate theme-signs. The theme-signs used in the fully transitive paradigm and shared with the UAC both reflect that the complex probe on *v* undergoes two Agree relations with a goal in its complement and another in its specifier. Thus, within the *v*P, the UAC acts like a normal transitive, but past the *v*P level, after the *-o* suffix marks the UAC construction, the derivation becomes morphologically intransitive. The presence of an X argument causes the switch from transitive to intransitive in the derivation.

The following section looks at other potential realization of Argument Licensing, such as Class Licensing in Bantu and Aspect Licensing in Finnish and Icelandic.

8.2 Varieties of Argument Licensing

This section looks at the implication of Argument Licensing in (10) beyond Case or Person Licensing. I consider the possibility that [β] can be realized as Class or Gender features in Bantu, and as Aspect in languages like Icelandic and Finnish.

(10) **Argument Licensing**

A DP bearing a (certain type of) feature (or feature complex), [β], must enter into an Agree relation with a head bearing an unvalued feature [uβ].

Section 8.2.1 presents data from Bantu that Diercks (2011) argues lacks Abstract Case (as I have argued for Ojibwe, Chapter 5.2). Considering the Bantu language of Zulu, Halpert (2011) argues that nominals are still subject to 'structural licensing' in the absence of Standard Case, which may be an instantiation of Argument Licensing by Class features.

Section 8.2.2 turns to another possible realization of Argument Licensing as Aspect. I look at data from Icelandic and Finnish where the aspectual specification of a *v*P affects the marking of objects, relating to the analysis of Pesetsky & Torrego (2004) of Case as checking of Tense (Aspect) features.

The idea that Argument Licensing can be relativized to different features (i.e. values of [β]) maintains that there is still systematic licensing of arguments in the syntax of each language, but languages can differ in which properties accompany that licensing.

8.2.1 Caseless Licensing in Bantu

Diercks (2011) argues that Bantu syntax shows no effect of uninterpretable Case features (in the sense of Chomsky 2000) and does not have Abstract Case. Halpert (2011) considers data from the Bantu language of Zulu and argues that it is not the case that arguments can go unlicensed in the syntax, but that the licensing of arguments is clouded by certain properties of Zulu. I suggest that Bantu, like Algonquian, falls outside the realm of Standard Case and potentially exhibits Argument Licensing by Class features.

Diercks (2011) argues that Bantu is caseless, looking at constructions that violate the Case filter, namely non-Case licensed subjects of infinitives. He also claims that Case cannot be valued in Bantu, indicated by the multiple checking of arguments in the absence of Case assignment. First, consider subjects of infinitives, which cannot be Case licensed in English by a defective T, but must move or relate to an added Case assigning element like *for*: 'It is possible *(for) Mike to call Tegan.' Diercks (2011) presents Swahili data from *possible*-constructions, where the predicate 'possible' can take a finite complement (11)a, or a non-finite complement (11)b.[144] What is interesting is that (11)b is grammatical and does not require a Case assigning element like *for* to license the subject, which cannot receive Case from the non-finite embedded T. The same data holds for Digo and Lubukusu.[145,146]

[144] The *possible*-constructions are discussed because they require the case marking complementizer *for* and cannot license the embedded subject by Exceptional Case Marking or by Raising (e.g. *'Mike is possible to call Tegan.').

[145] Diercks (2011) shows that the data in (11) is distinct from a Raising-to-Object construction, which takes on a different form in Bantu, indicating that the embedded subjects remain in the lower clause.

(11) a. I-na-wezakana kwamba Maiko a-ta-m-pig-i-a
9S-PRES-possible that 1Michael 1S-FUT-1O-beat-APPL-FV
Tegani simu.
1Tegan phone
'It is possible that Michael will call Tegan.'

b. I-na-wezakana (*kwa) Maiko ku-m-pig-i-a
9S-PRES-possible (*for) 1Michael INF-1O-beat-APPL-FV
Tegani simu.
1Tegan phone
'It is possible for Michael to call Tegan.' (Swahili; Diercks 2011:7)

Non-embedded infinitive clauses can also have subjects in the absence of a Case assigner, shown in Lubukusu in (12), unlike English (e.g. '*(For) Michael to call Tegan would be a good thing.').

(12) Sammy khu-khila ku-mw-inyawe o-kwo khu-la-sanga-sya mawe.
1Sammy INF-win 3-3-game DEM-3 15S-FUT-please-CAUSE mother
'For Sammy to win the game will please his mother.'
(Lubukusu; Diercks 2011:9)

Swahili and Lubukusu show arguments in non-Case licensed positions, but the violation of the Case Filter does not cause ungrammaticality.[147] Diercks claims that Bantu languages lack Abstract Case and uninterpretable Case features because arguments are not subject to the Case Filter since they can grammatically appear in unlicensed positions.

Second, Diercks (2011) claims that Bantu does not conform to Case valuation (i.e. one Case per argument) since arguments can appear in multiple Case positions.

[146] The numbers in the glosses of Bantu languages indicate noun class rather than person, unless indicated (e.g. '1person'). S and O indicate agreement of class with subject or object, respectively.

[147] Diercks (2011) further discusses data from Locative Inversion and the Bantu Impersonal Passive, none of which provide evidence for Abstract Case as the checking of uninterpretable Case features.

Lubukusu, allows raising out of a finite clause, seen with *John* in (13)b which triggers agreement *a-/ka-* 'class 1 subject' in both clauses.[148] The construction in (13)b is not expected if *John* bears a [uCase] feature because it would get Case valued twice.

(13) a. Ka-lolekhana (mbo) John ka-a-kwa. (Lubukusu)
6S-seems (that) 1John 1S-PST-fell
'It seems that John fell.'

b. John a-lolekhana (mbo) ka-a-kwa.
1John 1S-seems (that) 1S-PST-fell
'John seems like he fell.' / 'John seems to have fallen.' (Diercks 2011:23)

The situation in Bantu is strikingly similar to Algonquin, which also shows no evidence for Abstract Case, and I accept Diercks (2011) claim that Bantu does not employ Case in the syntactic derivation (similar claims in Markman 2009; Carstens & Diercks to appear).

In the absence of Standard Case, Halpert (2011) argues that there is evidence for the structural licensing of arguments, but that surface factors distort the realization of such licensing. Although Halpert claims structural licensing in Zulu satisfies the Case Filter, the properties of this licensing are distinct from Standard Case and may constitute Argument Licensing by Class features in Bantu languages (Carstens 2005).

Zulu nominals are typically marked by an *augment vowel* prefix that reflects noun class, such as ***u****-mu-ntu* 'person (class 1)' or ***i****-qanda* 'egg (class 5)', and nominals bearing *augment vowels* are not restricted in their syntactic distribution. Halpert (2011) argues that the structural licensing of arguments can be seen with *augmentless* nominals, which appear in downward entailing environments and have a strict syntactic distribution. Augmentless nominals must be the highest argument within a *v*P, and are otherwise illicit outside of *v*Ps, seen in (14) for *muntu* 'person', or below other arguments within a *v*P, seen in (15) for *muntu* 'person' (a) and *qanda* 'egg' (b).

[148] Carstens & Diercks (to appear) assert that (13)b does involve raising of *John*, supported by scope diagnostics.

(14) a. A-ngi-sho-ngo [ukuthi [$_{vP}$ ku-fik-e **muntu**]] (Zulu)
NEG-1sg.S-say-NEG.PST that 17S-arrive-PERF 1person
'I didn't say that anyone came.'

b. *A-ngi-sho-ngo [ukuthi **muntu** [$_{vP}$ ku-fik-e]].
(Halpert 2011:11)

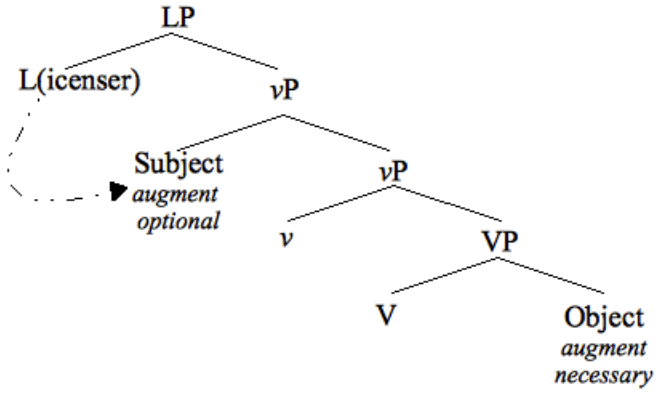
(15) a. a-ku-phek-anga [$_{vP}$ **muntu** i-qanda] (Zulu)
NEG-17S-cook-NEG.PST 1person AUG-5egg
'A/the person didn't cook any egg.'

b. *a-ku-phek-anga [$_{vP}$ u-muntu **qanda]**
NEG-17S-cook-NEG.PST AUG-1person 5egg
Intended: 'A/the person didn't cook any egg.' (Halpert 2011:13-4)

Halpert (2011) proposes that augmentless nominals are licensed by a *v*P external projection, LP in (16), that can license *v*P internal augmentless arguments. The tree in (16) reflects a construction like (15)a with two *v*P internal arguments, the higher of which can be augmentless because it can be licensed by the head L. Licensing by L is subject to Defective Intervention because a lower argument cannot enter a relation with L across a higher argument, whether it bears an augment vowel or not (see (15)b,c). Augmentless objects are possible when the subject has raised out of the *v*P, removing it as an intervener and allowing the object to agree with L.[149]

[149] Halpert (2011) provides independent evidence for LP in the "conjoint/disjoint" morphology of Zulu. The head L spells out as the disjoint *–ya* when there are no augmentless nominals in its domain, but L is null (conjoint) when it licenses an augmentless nominal.

(16) Licensing augmentless arguments via LP (Adapted from Halpert 2011:14)



As argued by Diercks (2011), arguments can appear in positions where they cannot be Case Licensed (e.g. subject of an infinitive), and Halpert (2011) claims that licensing in Zulu occurs within the *v*P (by L). Following suggestions from Carstens (2011) and Diercks (2011), it may be that Argument Licensing in Bantu is realized as Gender or Class Licensing. Bantu nominals are lexically specified for a noun class, which is encoded in the form of an augment vowel prefix and appears in verbal agreement with arguments.[150] Suppose that the use of an augment vowel indicates the licensing of Class on a nominal, and augmentless nominals must then license their Class feature in another manner, namely checking with the *v*P external L. Therefore, Bantu might constitute a case of Class Licensing, where [β]=[Class/Gender] in (10), using different licensing heads and mechanisms than the previously discussed Case and Person Licensing. Nominals violate Class Licensing when they cannot enter an Agree relation with an appropriate licensor, such as L or an augment vowel prefix. For example, *qanda* 'egg' in (15)c violates Class Licensing because *muntu* 'person' blocks it from agreeing with L and the Class features on *qanda* remain unlicensed.

Bantu, like Algonquian, does not appear to have Abstract Case, but does still require the syntactic licensing of arguments. My formulation of Argument Licensing allows for the possibility of Class Licensing in Bantu, just as Ojibwe arguments are

[150] The augment vowels might be compared to prepositions, which can license Case on DPs, however it appears that augment vowels are more widely distributed in different syntactic positions than prepositions in a Case Licensing language.

subject to Person Licensing in the absence of Case. The next subsection considers a final realization of Argument Licensing with respect to Aspect features.

8.2.2 Aspect dependent object marking

This section briefly discusses the interaction of aspectual specifications and the realization of arguments in Finnish and Icelandic.[151] Icelandic objects can alternate between accusative and dative case marking, which Svenonious (2001) claims is a morphological realization of aspect. Finnish objects alternate between accusative and partitive case marking, also dependent on the aspectual information contributed both by the verb and the object (Kiparsky 1998). One approach to the involvement of aspect in the licensing of arguments is found in Pesetsky & Torrego (2001, 2004) who posit that structural Case is actually the checking of uninterpretable Tense features on DP arguments. I suggest that Aspect Licensing might exist as an overlay to Case, which licenses [D] features on arguments and is responsible for inherent case valuation (not covered by Pesetsky & Torrego), while Aspect targets arguments of certain types in certain aspectual environments.

Svenonious (2001) suggests that Icelandic non-nominative case reflects tense and aspect features, and claims that dative and accusative case on objects are a morphological realization of *aktionsart*, relating the aspectual specification of the *v*P.[152] Objects alternate between accusative and dative marking depending on the aspect of the *v*P. For example, objects of assisted motion, like *draga* 'drag', are marked as accusative (17), but objects implying manner of motion are marked as dative (18).

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[151] The discussion of the interaction of arguments and aspect in this section looks exclusively at *differential object marking* in Icelandic and Finnish. I do not discuss the phenomenon of *differential subject marking*, which is typically found in ergative languages that have a split in argument marking sensitive to aspect (i.e. perfective versus non-perfective, see Coon & Preminger to appear).

[152] Recent work by Sigurðsson (2012) looks in detail at the agreement patterns and argument distribution in Icelandic. He claims that Icelandic arguments undergo multiple A-relations centered on event licensing, case licensing and phi-licensing. In further research I hope to reconcile my view of Icelandic with the Sigurðsson discussion, particularly questioning whether that language shows robust evidence for standard Abstract Case, or if case marking is a reflex of other mechanisms.

(17) Accusative objects

a. draga ‘pull; drag; draw’ (Icelandic)

b. flytja ‘move; transport; carry’

c. hækka ‘raise’ (Svenonious 2001:5)

(18) Dative objects

a. dreypa vatninu ‘sprinkle water’ (Icelandic)

b. fleyta bátnum ‘float the boat’

c. velta tunnu ‘roll a barrel’ (Svenonious 2001:5)

The alternation is also seen with ‘ballistic’ motion, where targets of a projectile are accusative (19)a, but the projectile itself is dative (19)b.

(19) a. skutla hvalinn (Icelandic)
‘harpoon the whale(ACC)’

b. skutla skutlinum
‘throw the harpoon(DAT)’ (Maling 2001 via Svenonious 2001:4)

Svenonious (2001) characterizes the Icelandic objects as in (20), generally indicating that accusative objects map onto all subparts of the *v* event, but datives do not map to every subpart of the event.

(20) a. **Accusative direct object**: “For every subpart of the event there is some corresponding subpart of the object ... such that the relation between the event and the object also holds between the subpart of the event and the subpart of the object.”
b. **Dative direct object**: “[I]f the V event and the *v* event have distinct extensions in time ... then the object will not map to *v*P even if it maps to VP.
(Svenonious 2001:14)

The case marking of Icelandic objects is sensitive to the aspectual specification of the *v*P, as is also the situation for Finnish objects. Data from Finnish shows a similar

phenomenon where objects alternate between accusative and partitive marking. Kiparsky (1998) argues that Finnish object case relates the "boundedness" or "unboundedness" of the *v*P by marking objects as accusative or partitive respectively.[153]

Consider the data in (21) involving the predicate *ammu* 'shoot' and the marking of its object as accusative or partitive. In (21)a the object is marked as accusative, indicating a resultative accomplishment (i.e. the target of 'shoot' is hit) as well as a definite or determinate object. (21)b shows the marking of an object with partitive case which corresponds to irresultative 'shoot', where the target need not be hit. The partitive object in (21)b can be interpreted as determinate or indeterminate.

(21) a. Ammu-i-n { karhu-n / kaksi karhu-a / karhu-t }
shoot-PST-1sg bear-ACC two.ACC bear-PART bear-pl.ACC
'I shot { the (a) bear / (the) two bears / (the) bears }.'

b. Ammu-i-n { karhu-a / kah-ta karhu-a / karhu-j-a }
shoot-PST-1sg bear-PART two-PART bear-PART bear-pl-PART
'I shot at { the (a) bear / (the) two bears / (the) bears }.'
(Finnish; Kiparsky 1998:2-3)

Kiparsky (1998) characterizes the behaviour of Finnish object marking in (22) where partitive case reflects an unbounded *v*P, determined by either the verb or the DP. Accusative case is only possible when both the verb and object are bounded.

(22) A VP predicate is unbounded if it has either an unbounded head, or an unbounded argument. (Kiparsky 1998:18).

Like Icelandic, Finnish object marking is sensitive not only to grammatical function or the form of the DP (e.g. definite/indefinite) but to the aspect of the *v*P (bounded or unbounded in Kiparsky's 1998 terms). What is interesting for the discussion of Argument Licensing is that the distribution of arguments can be governed by aspect, suggesting the

[153] Kiparsky's (1998) notion of boundedness might also be viewed in terms of Tsunoda's (1981) *Effectiveness Condition* (see also Hopper & Thomson 1980).

possibility of Aspect Licensing. However, the question that arises is whether the alternation in Icelandic and Finnish object case marking should be considered Case or not.

Pesetsky & Torrego (2001, 2004) propose that Structural Case is actually the checking of uninterpretable Tense features on DPs, implying that "Aspect Licensing" might be equivalent to Case Licensing. They propose the Argument Tense Condition in (23), where subjects get nominative by checking against T_S, and objects get accusative by checking against T_O within the *v*P, shown in (24).

(23) **Argument Tense Condition (Case Filter)**: An argument must bear T (uT or iT).
(Pesetsky & Torrego 2004:501)

(24) **Verbal predication structure**:
Subj T_S [$_{vP}$ *v* T_O [$_{VP}$ V Obj]] (Pesetsky & Torrego 2004:503)

Pesetsky & Torrego (2004) mention the sensitivity of Icelandic and Finnish objects to aspectual features, suggesting that structural accusative case in these languages corresponds to the checking of [uT] on a DP with T_O. However, it not the case that every object in Icelandic or Finnish gets structural case since objects alternate between structural accusative case and inherent dative or partitive case. I suggest that Case separated from Tense or Aspect is still needed, where Case licenses inherently marked arguments and overlaps with structural Aspect Licensing (parallel to the overlap of Person and Case in other languages).

I take the Icelandic and Finnish data to show a direct connection between aspect and the marking of an internal object, which indicates a potential realization of Argument Licensing as Aspect Licensing. However, it is not clear whether aspect operates separately from Case Licensing, particularly under the account of Pesetsky & Torrego (2001, 2004) who argue that structural case is the checking of uninterpretable Tense features on DP. I suggest the kind of licensing presented by Pesetsky & Torrego (2001, 2004) might constitute Aspect Licensing, but that there may also be a need for arguments to Case license their arguments as well (e.g. check [D] features).

8.2.3 Section summary

This section considers some wider implications of Argument Licensing (10) as an underlying universal that can be relativized to different types of features. I have claimed that Case itself should not be considered universal, but that Case is a realization of Argument Licensing (e.g. where [β]=[D]), and that languages can also license their arguments by Person ([β]=[π]). Bantu shows the possibility of Class Licensing in the absence of Abstract Case (Diercks 2011, Carstens 2011). There is also the possibility of Aspect Licensing, as I discussed for Icelandic and Finnish object marking that depends on the aspectual specification of the *v*P. The possibility that arguments are licensed by aspectual features relates to the work of Pesetsky & Torrego (2001, 2004) who claim that all structural Case is actually the checking of uninterpretable Tense features on DP arguments. I consider some implications of Pesetsky & Torrego in terms of Icelandic and Finnish arguments, arguing that although accusative objects are accounted for by an interaction with a *v*P internal Tense or Aspect head, this view does not have anything to say about objects with inherent case. Further research might determine the interaction between Aspect and Case to see whether they are truly part of the same syntactic system, or are overlapping realization of Argument Licensing.

Finally, I will conclude the discussion of this thesis in the following section, reviewing what I argue the role of Person, Case and Argument Licensing is in Universal Grammar.

8.3 Concluding Remarks

The goal of this thesis was to reconsider how arguments are syntactically licensed to better analyze the mechanics of licensing used in different languages. The traditional view is that arguments are licensed by Case cross-linguistically (Chomsky 1981, 1986) as a marker of grammatical function or A-position. Standard Case was formulated beginning with data from English and other European languages and accounts for the syntactic licensing of arguments beyond their thematic roles. However, as the languages under consideration have widened, Case remains the assumed manner of argument licensing, causing issues for certain data. Evaluating the Ojibwe data in detail exposes it as a language without evidence for Abstract Case, but instead it has a need for the person

features of clausal arguments to be indexed and restricted. My main proposal is that Case itself is not a universal of human language, but is in turn a robust realization of an underlying universal of *Argument Licensing*. Case is a realization of Argument Licensing in many languages and often the term "Case" is used to broadly denote the syntactic licensing of arguments. I have tried to tease apart Case itself from Argument Licensing in general, specifically with the claim that Argument Licensing can be realized in a language as Person. Case and Person both control the syntactic distribution of arguments, but they do so relativized to different features – [D] for Case and [π] for Person.

I proposed the formulation of Argument Licensing in (25). The [β]-parameter determines what features a language will be sensitive to in terms of licensing its arguments. For Case, [β] equals the unvalued categorial feature [D], and for Person [β] equals the valued complex [π] feature.

(25) **Argument Licensing**

A DP bearing a (certain type of) feature (or feature complex), [β], must enter into an Agree relation with a head bearing an unvalued feature [uβ].

I claim that Case in a language like English has distinct properties from Person Licensing in a language like Ojibwe, summarized in (26). Argument Licensing does not circumvent the need for theta-licensing and the Theta Criterion remains. However, the heads that license arguments, the positions they are licensed in, and the requirements for licensing differ based on whether a language is sensitive to Case, Person, or both.

(26) **Case vs. Person Licensing**

Properties:	**Case [D]**	**Person [π]**
Theta-Criterion	✓	✓
Licensing [β] obligatory	✓	✓
One DP per licensor	✓	✗
One licensor per DP	✓	✗
All DPs undergo licensing	✓	✗

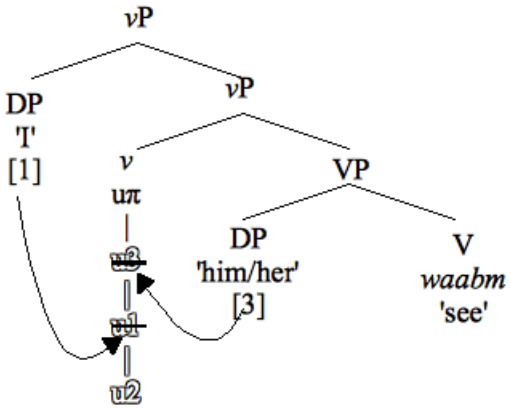
I derive the different properties of Case and Person from their nature as features, which are shown in (27). Case is subject to the licensing of [D] features, which are simplex and Case checking involves the assignment of a Case value. On the other hand, Person is predicated on [π] which can be a complex, entailed set of features that are valued or interpretable in the syntax.

(27) Comparison of Argument Licensing features

	Case Licensing	**Person Licensing**
[β]=	[D]	[π]
Type of feature	simplex; categorial	complex; entailed set
Value on argument	unvalued ([D, uCase:__])	valued/interpretable
Argument defining	Yes	No

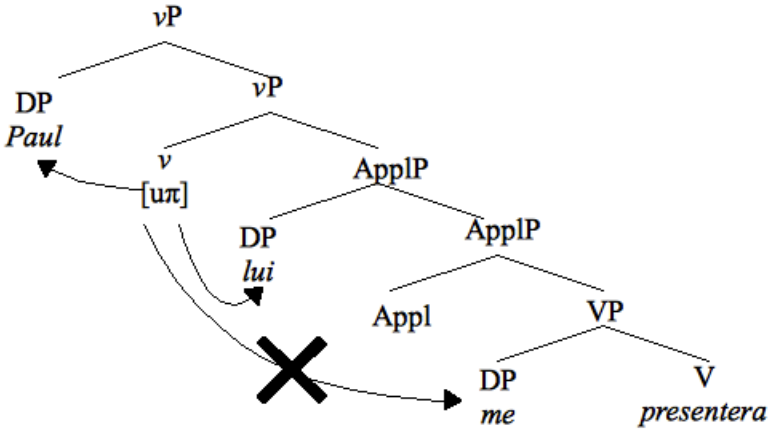
The main source of differentiation between Person from Case is the locus of Person Licensing on little *v* that bears a complex, entailed set of π-features. Because there are multiple features that can be checked on *v* it can potentially Agree with more than one goal, though locality conditions must be respected. Chapter 2 discusses the complex morphology of the Ojibwe Inverse System where the verbal suffix called the *theme-sign* actually encodes the π-features of both the internal and external argument in a transitive clause. The checking of two arguments with the complex probe on *v* is sketched in (28).

(28) Cyclic Agree with *v*



The fact that Person Licensing is centered on little *v* allows for the derivation of the Ojibwe theme-signs but also allows for an account of Person Restrictions found cross-linguistically, namely the Person-Case Constraint and variations thereupon. In ditransitive Double Object Constructions there are two DP arguments within the complement of little *v*. Due to strict locality little *v* can only Agree with the highest internal argument (and the subject), potentially leaving the π-features of the lower internal argument unlicensed, shown in (29) for a French ditransitive. This restricts the lower internal argument to 3rd persons, as relatively unspecified compared to 1st and 2nd person, and this restriction is the Person-Case Constraint.

(29) Person Licensing in a ditransitive



The Person-Case Constraint and other Person Restrictions are found in languages that require the π-features on their arguments to be licensed, but these restrictions are inactive in languages that only license their arguments by Case. French, for example, shows Case phenomena but is also subject to Person Restrictions and requires the licensing of its arguments by both their [D] and [π] features.

I do not consider Person to be parasitic on Case in all languages, and claim that languages can license their arguments by Person in the absence of Case (as in Ojibwe) or in addition to it (as in French). Such an approach more elegantly describes the behaviour of arguments in a language like Ojibwe, which cannot be analyzed by Standard Case but shows robust Person sensitivities. We can see the properties of Person in the absence of Case in Ojibwe and this helps us understand the workings of Argument Licensing in other languages that do not so clearly show the underlying mechanics of Person in the morphology. I propose that the theory must move beyond Case as an absolute universal that continually changes its forms and principles to fit the wide variety of data concerning argument distribution cross-linguistically.

I hope to add to the vast literature that already exists concerning the behaviour of arguments and their interaction with their syntactic environment. Much work has been done on the realization of Case and issues with the mismatch between structural Case and morphological case. My work could not exist apart from the theory of Case and argument licensing that has come before, since I aim to consider the licensing of arguments from a new perspective provided by the initial study of Ojibwe and Algonquian languages. The complications existing with the behaviour of Case and Person are by no means exhaustively covered in my discussion and there may be many further crucial details that bear on my analysis.

Overall I claim that my approach to Argument Licensing achieves better coverage of the data by both attempting to unite cross-linguistic behaviour with an underlying Argument Licensing universal, and by allowing for variation in the syntax in how that licensing is realized.

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