Microparameters of agreement:
A diachronic perspective on Algonquian verb inflection

by

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A thesis submitted in conformity with the requirements
for the degree of Doctor of Philosophy

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University of Toronto

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This thesis presents an analysis of the verbal agreement morphology of Proto-Algonquian, the reconstructed ancestor of the Algonquian languages. The thesis has three main goals. The empirical goal is to make the findings of the Algonquian philological literature accessible to a broader audience of linguists, thus helping to bridge the gap between Algonquian philology and linguistic theory. The analytical goal is to formulate a simple and comprehensive analysis of Proto-Algonquian agreement that can be extended forward to connect with analyses of the daughter languages, thus providing a diachronically-grounded framework for microcomparative Algonquian morphosyntax. The theoretical goal is to connect the Algonquian facts with the broader theoretical literature on agreement, as the complexity and variability of Algonquian agreement provides a rich illustration of the microparameters along which agreement systems may vary.

The core of the analysis is a model of the direct-inverse system that relies solely on person agreement. I propose that the direct-inverse system arises from an interaction between two person probes: a lower probe on Voice and a higher probe on Infl. A further D-probe is present on T (distinct from Infl) in the inflectional paradigm known as the “independent order” due to the nominal origin of this inflection. Crucially, the lower probe on Voice triggers A-movement that renders the object equidistant with the subject for all subsequent syntactic operations. This equidistance is what gives rise to the direct-inverse pattern, since it removes locality as a factor in subsequent agreement operations and leaves the Infl and T probes free to agree with whichever of the two arguments is the best match for their features. The surface complexity of the agreement morphology is attributed to the presence of subject and object clitic doubling in addition to subject and object agreement.

Connections to various theoretical issues are identified, including the Activity Condition, portmanteau agreement, split ergativity, differential object marking, the distinction between agreement and clitic doubling, the distinction between index agreement and concord agreement, and the status of third-person features. A broad survey of relevant developments in the daughter languages is provided as a first step towards a microcomparative pan-Algonquian analysis of agreement.
Acknowledgments

The pathway to this thesis began with my MA work on the Innu language, guided by Phil Branigan and Marguerite MacKenzie at Memorial University of Newfoundland. Shortly after my arrival at the University of Toronto, Alana Johns arranged for me to work with a speaker of Ojibwe, thus broadening my experience with the Algonquian family. My perspective was broadened further by a generals paper on Algonquian historical phonology that I wrote under the guidance of Elan Dresher, a project that introduced me to the Algonquian philological literature and very nearly led me to write a phonology thesis. I settled on my thesis topic after some perceptive advice from Keren Rice and I am grateful to Diane Massam for agreeing to be my supervisor. The other members of my supervisory committee were Elizabeth Cowper and Alana Johns, who were joined at my defense by Susana Bejar, Elan Dresher, and Jonathan Bobaljik; I thank all of them for sharing their expertise.

My research has been shaped by several communities. Foremost is the Department of Linguistics at the University of Toronto, where I have been greatly influenced by Susana Bejar's work on agreement and Elizabeth Cowper's work on features and syntactic change. I have also benefited from discussions with Bronwyn Bjorkman, Richard Compton, Chris Harvey, Arsalan Kahnemuyipour, Kenji Oda, Michelle Yuan, and several audiences at the Toronto Syntax-Semantics Project. The members of my PhD cohort—LeAnn Brown, Joanna Chociej, Derek Denis, Julie Goncharov, Mercedeh Mohaghegh, and Alex Motut—were a constant source of friendship and support, along with other graduate students such as Ailis Cournane, Becky Tollan, Chris Spahr,Radu Craioveanu, Ross Godfrey, Sarah Clarke, and Tomohiro Yokoyama (and others who I am no doubt forgetting to name).

Another important community is the annual Algonquian Conference, where I have repeatedly been enlightened by questions and comments from Heather Bliss, Lynn Drapeau, Ives Goddard, David Pentland, Conor Quinn, and H.C. Wolfart, among others. I have also been fortunate to work with a number of speakers of Innu, Ojibwe, and Oji-Cree over the past several years and I cannot thank them enough for their endless patience and insight as they taught me about their beautiful languages.
I have gotten fresh perspectives on my thesis research from the broader community of generative linguists at WCCFL 31 (Arizona State University), NELS 44 (University of Connecticut), and WCCFL 32 (University of Southern California), as well as from my new colleagues in the Department of Linguistics at the University of Manitoba, including Jila Ghomeshi, Rob Hagiwara, David Pentland, and audiences at departmental colloquia.

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<td>1st-person plural exclusive</td>
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<td>21p</td>
<td>1st-person plural inclusive</td>
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<td>3</td>
<td>animate proximate 3rd person</td>
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<td>4</td>
<td>animate obviative 3rd person</td>
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<td>0</td>
<td>inanimate 3rd person</td>
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<td>1—3</td>
<td>1st-person logical subject, 3rd-person logical object</td>
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<td>AC</td>
<td>Activity Condition</td>
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<td>addressee</td>
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<td>AI+O</td>
<td>object-selecting AI verb</td>
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<td>ANIM</td>
<td>animate</td>
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<td>Asp&lt;sup&gt;0&lt;/sup&gt;</td>
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<tr>
<td>C&lt;sup&gt;0&lt;/sup&gt;</td>
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<tr>
<td>CNJ</td>
<td>conjunct order</td>
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<tr>
<td>COMP</td>
<td>complementizer</td>
</tr>
<tr>
<td>D&lt;sup&gt;0&lt;/sup&gt;</td>
<td>determiner</td>
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<td>D&lt;sub&gt;CL&lt;/sub&gt;</td>
<td>clitic</td>
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<td>FTV</td>
<td>formative suffix</td>
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<td>FUT</td>
<td>future</td>
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<td>II</td>
<td>Inanimate Intransitive verb</td>
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<td>inanimate</td>
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<td>indefinite</td>
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<td>INDIC</td>
<td>indicative</td>
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<td>Infl&lt;sup&gt;0&lt;/sup&gt;</td>
<td>inflectional head without semantic content</td>
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<tr>
<td>INTRANS</td>
<td>intransitive</td>
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<tr>
<td>INV</td>
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<td>INV(X)</td>
<td>unspecified actor variant of inverse theme sign</td>
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<tr>
<td>Mod&lt;sup&gt;0&lt;/sup&gt;</td>
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<tr>
<td>NEG</td>
<td>negative</td>
</tr>
<tr>
<td>Neg</td>
<td>negative head</td>
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<tr>
<td>NOM</td>
<td>nominalizer</td>
</tr>
<tr>
<td>OBJ</td>
<td>object (e.g. 1OBJ = 1st-person object)</td>
</tr>
<tr>
<td>OBV</td>
<td>obviation</td>
</tr>
<tr>
<td>p</td>
<td>plural (used with person, e.g. 2p = 2nd-person plural)</td>
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<tr>
<td>PA</td>
<td>Proto-Algonquian</td>
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<tr>
<td>PAH</td>
<td>Pronominal Argument Hypothesis</td>
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<tr>
<td>Part</td>
<td>participant</td>
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<tr>
<td>PAST</td>
<td>preterit (§6.4.1)</td>
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<td>PCC</td>
<td>Person-Case Constraint</td>
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<td>PCl</td>
<td>proclitic</td>
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<td>PERF</td>
<td>perfective</td>
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<tr>
<td>Pers</td>
<td>person</td>
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<tr>
<td>PFX</td>
<td>prefix</td>
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<tr>
<td>pl.</td>
<td>plural</td>
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<tr>
<td>POV</td>
<td>Point-Of-View</td>
</tr>
<tr>
<td>PRES</td>
<td>non-preterit (§6.4.1)</td>
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<tr>
<td>Prox</td>
<td>proximate</td>
</tr>
<tr>
<td>PSSV</td>
<td>passive</td>
</tr>
<tr>
<td>s</td>
<td>singular (used with person, e.g. 2s = 2nd-person singular)</td>
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<tr>
<td>SFX</td>
<td>suffix</td>
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<td>sg.</td>
<td>singular</td>
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<td>subjunctive</td>
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<td>STAT</td>
<td>stative</td>
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<tr>
<td>SUBJ</td>
<td>subject (e.g. 1SUBJ = 1st-person subject)</td>
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<td>T0</td>
<td>tense head</td>
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<td>TA</td>
<td>Transitive Animate verb</td>
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<td>TA+O</td>
<td>ditransitive TA verb</td>
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<td>TI</td>
<td>Transitive Inanimate verb</td>
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<td>TRANS</td>
<td>transitive</td>
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<tr>
<td>t.s.</td>
<td>theme sign</td>
</tr>
<tr>
<td>u</td>
<td>uninterpretable (e.g. [uPers])</td>
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<tr>
<td>v</td>
<td>verb stem</td>
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<tr>
<td>v0</td>
<td>light verb</td>
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<td>unspecified actor</td>
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1

Introduction

“The great similarity of the Algonquian languages means that where the languages seem not to match each other exactly an explanation is both demanded and likely to be possible.” (Goddard 2007:207)

As the above quote expresses, the Algonquian languages are an ideal realm for comparative linguistics, as their combination of diversity and close similarity not only raises interesting questions but also makes it feasible to find answers. From a historical perspective, the fruitfulness of comparing the Algonquian languages was demonstrated by Bloomfield’s (1925, 1946) brilliant reconstruction of Proto-Algonquian, which Hockett (1948a:117) commends as “one of the finest indoctrinations into the best of linguistic method.” In this thesis I intend to show that the comparison of Algonquian languages is enlightening not only for historical linguistics, but for theoretical linguistics as well. In particular, the thesis takes a comparative approach to understanding the agreement system of the Algonquian verb.

The theoretical significance of Algonquian agreement has long been recognized, as the formidable complexity of the agreement system makes it an exacting test for any theory of agreement (see e.g. Halle and Marantz 1993). While this fact has ensured that there is no shortage of existing analyses of Algonquian agreement, the analysis developed in this thesis differs from preceding work in two respects. First, the analysis strives to be comprehensive, covering both the entire set of agreement morphemes and the entire set of inflectional paradigms rather than only a small subset of both. Second, the analysis takes full account of the Algonquian philological literature, an incredibly rich and insightful body of diachronic data that has largely been neglected in theoretical work. At its core, then, the thesis is an attempt to unify theory and philology in Algonquian linguistics, thereby connecting two large and mutually relevant bodies of work that have mostly stood in regrettable isolation.
Chapter 1

The ultimate theoretical benefit of this endeavor, as expressed in the title of this thesis, is a deepening of our understanding of the microparameters of agreement—that is, the small but important ways in which agreement systems can vary. The Algonquian family is particularly well suited to this perspective because most of the languages in fact have two formally distinct systems of verb agreement, known as the independent and conjunct orders, that are employed in different syntactic contexts. The coexistence of these two parallel systems means that microcomparison is in fact possible even within a single Algonquian language—and, thanks to the findings of the philological literature, it is also possible to trace exactly how the microvariation came to exist in the first place. It is this strategy of drawing upon both synchronic and diachronic perspectives that forms the analytical backbone of this thesis.

The remainder of this chapter explains in greater detail what this thesis will accomplish. Section 1.1 sets out the goals of the thesis. Section 1.2 explains why a diachronic perspective on Algonquian agreement is particularly useful for attaining these goals. Section 1.3 introduces the empirical foundation of the thesis, which consists primarily of data from Proto-Algonquian, the reconstructed ancestor of the Algonquian languages. Section 1.4 sets out the basic theoretical framework and assumptions that will be employed. Finally, Section 1.5 provides an outline of the remaining chapters of the thesis.

1.1 Goals of this thesis

While the goals of the thesis are ultimately theoretical, the path to this theoretical endpoint involves empirical and analytical goals as well, which I consider to be of equal importance. The empirical goal (§1.1.1) is to assemble an accessible picture of the diachronic development of Algonquian agreement. The analytical goal (§1.1.2) is to build an analysis of Proto-Algonquian agreement that is both simple and comprehensive and can serve as a foundation for further comparative work. The theoretical goal (§1.1.3) is to draw insight from this analysis into the microparameters along which agreement systems can vary. Variation in agreement is an important issue in light of the central role played by agreement in contemporary generative syntax, in which abstract agreement is often considered to be responsible for both licensing and movement (Chomsky 2000, 2001). These far-ranging syntactic effects make it particularly important to pin down the parameters along which agreement can vary.

The remainder of this section describes these goals in more detail. While I consider all three goals to be equally important, each goal is of interest to different audiences. The empirical goal is of interest primarily to Algonquianists. The analytical goal is of interest to Algonquianists and to those who are analyzing similar patterns in other languages. The
theoretical goal is relevant to those who study the theory of agreement in general. The pursuit of these three goals is intertwined throughout the length of the thesis, so the implications of any given section will vary depending on the background of the reader. I have attempted to express both the Algonquianist content and the theoretical content in accessible terms, such that no part of the thesis is restricted in interest to specialists of one type or the other.

1.1.1 Empirical goal: an accessible diachronic reference

The empirical goal of this thesis is to assemble an accessible picture of the diachronic development of Algonquian agreement. That such a goal is conceivable is a testament to the richness of the Algonquian philological literature: in a body of work that has been sustained over generations, the phonology and morphology of Proto-Algonquian have been reconstructed in painstaking detail (Bloomfield 1925, 1946; Michelson 1935; Siebert 1941; Goddard 1967, 1974b, 1979a, 2007; Pentland 1979, 1999; Proulx 1980a, 1982, 1984a, 1990). It is thus possible to trace the development of most properties of the contemporary daughter languages directly back to the protolanguage.

The existence of this body of work has tremendous significance for linguistic theory. Due to the polysynthetic nature of the Algonquian verb, many of the operations that take place in the syntax of other languages occur within the morphology of the verb itself. The reconstruction of Proto-Algonquian verb inflection thus provides us with 2,500 years’ worth of complex and detailed diachronic morphosyntax—a rare and valuable resource. However, since the gap between philology and theory has seldom been bridged, exceedingly little theoretical use of this resource has been made. This failure to connect is in part due to the nature of the philological literature, which is highly specialized and distributed over a large number of often obscure publications containing cryptic explanations and occasionally inconsistent assumptions. Only by struggling through the entire literature can one even begin to understand the patterns that have been reconstructed.

This thesis aims to remedy this situation by gathering together the reconstructions of Proto-Algonquian inflection and presenting them in a common format, providing a gloss for each morpheme, explaining the function of each paradigm, and discussing any issues in the data upon which the reconstructions are based, all without assuming any familiarity with the existing Algonquianist literature. Beyond providing an empirical basis for the current thesis, this collection—which is presented in full in the Appendix—is intended to serve as a more general descriptive reference for Proto-Algonquian inflection, making the findings of
the philological literature accessible to more than just a handful of specialists and allowing anyone to undertake the type of diachronic work that is proposed in this thesis.

1.1.2 Analytical goal: a simple and comprehensive analysis

The analytical goal of this thesis is to develop a simple and comprehensive analysis of Proto-Algonquian agreement that can serve as a base for further comparative work. By simple, I mean that agreement will be treated purely as agreement: no additional categories, such as Point of View marking (Bliss et al. 2010), will be employed in the analysis. By comprehensive, I mean that the analysis will account for all verb classes (transitive, intransitive, ditransitive), all paradigms (including both the independent and conjunct orders), and all agreement morphemes (including a person prefix, two types of “theme signs”, a “formative” suffix, and two other agreement suffixes). Engaging with the entire system in this way avoids the possibility of sweeping analytical problems into unanalyzed corners of the system.

There are at least two reasons why a comprehensive analysis of Proto-Algonquian agreement is valuable. The first reason involves the typological status of Algonquian agreement: it is infamously complex, as illustrated by Gleason’s (1961) attempt, in an introductory textbook, to analyze a portion of the agreement inflection of the Central Algonquian language Plains Cree. As Pentland (1999:224–5) recounts, Gleason eventually abandons the attempt, remarking that “[t]hese paradigms are formidable” and that “[f]or the linguist they fail to show clearly any recurrent regularities of structure” (p. 117). While most Algonquianists would consider the latter statement to be inaccurate, it is indeed the case that Algonquian agreement constitutes a formidable test for any theory of agreement—hence Halle and Marantz’s (1993) selection of the Central Algonquian language Potawatomi as a lengthy illustration in their seminal paper on Distributed Morphology. Under the analysis developed in this thesis, the Algonquian agreement system includes all of the following properties: subject and object agreement, subject and object clitic doubling, direct-inverse marking, person- and tense-based split ergativity, differential object marking, and up to five distinct agreement markers that may co-occur on the verb, some of which are syntactic and some of which are postsyntactic. Evidently, then, we are dealing with a system in which the grammatical mechanism of agreement has been elaborated to an extreme degree. It goes without saying that such a system provides a valuable opportunity to learn about the limits on variation in agreement.

The second reason why an analysis of Proto-Algonquian agreement is valuable is that it provides a starting point for diachronically-informed microcomparative research on agreement in the Algonquian daughter languages. Much recent work in syntax has illustrated the
benefits of a microcomparative approach (e.g. Kayne 2005): studying minimally different grammars allows us to control for extraneous factors and focus more precisely on fine-grained grammatical parameters. There are at least two dimensions along which microcomparison can take place: synchronic microcomparative syntax compares closely-related languages or dialects (e.g. Zanuttini and Bernstein 2011 on verbal -s in Standard English and Appalachian English) while diachronic microcomparative syntax compares different diachronic stages of the same language (e.g. Roberts and Roussou 2003 on the history of English modals). In either case, the core of the method involves the comparison of minimally different grammars.

In this light, I suggest that Algonquian is an ideal “microcomparative family”, as the literature is rich in both of the dimensions of microcomparison. Synchronically, there are approximately 25 daughter languages, which consist of many more dialects, and the differences between varieties are small. Diachronically, the development of these varieties has been charted out in detail in the philological literature, as discussed above. To date, however, this tremendous potential has remained largely untapped, as most theoretical work on Algonquian languages has focused only on individual dialects. This state of affairs has recently begun to change due to pioneering comparative work by Déchaine and Wiltschko (2010) on Blackfoot and Plains Cree and Bliss et al. (2010) on Blackfoot and Ojibwe. These synchronic comparisons of the morphosyntax of two modern dialects are worthwhile, but the philological literature allows us to go even deeper than this: as shown in (1) for the Central Algonquian language Innu, a member of the Cree language continuum, description is in fact available for each stage from Pre-Proto-Algonquian up to the present day.

(1) Stages documented in the philological literature

<table>
<thead>
<tr>
<th>Pre-Proto</th>
<th>Proto</th>
<th>Pre-Modern</th>
<th>Early Modern</th>
<th>Modern</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre-PA</td>
<td>PA</td>
<td>Pre-Cree</td>
<td>Old Innu</td>
<td>Innu</td>
</tr>
</tbody>
</table>

Morphosyntactic comparison thus need not be confined to the synchronic level: in addition to comparing two dialects synchronically, we can also trace their diachronic development in order to identify the origins of the synchronic differences between them. The addition of this diachronic perspective adds a second dimension of micro-comparison as shown in (2), using Blackfoot and Ojibwe as examples.
Chapter 1

(2) Dimensions of micro-comparison

a. SYNCHRONIC  b. DIACHRONIC AND SYNCHRONIC

<table>
<thead>
<tr>
<th></th>
<th>Blackfoot</th>
<th>PA</th>
<th>Blackfoot</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ojibwe</td>
<td></td>
<td></td>
<td>Ojibwe</td>
</tr>
</tbody>
</table>

The analysis developed for Proto-Algonquian in this thesis is intended to be a tool for unlocking this kind of potential, as it will provide the diachronic dimension schematized in (2b), which has, until now, been lacking. The analysis of Proto-Algonquian can then be linked up with the analyses that have been proposed for individual Algonquian languages (e.g. Bruening 2001 for Passamaquoddy, Bliss 2005 and 2013a for Blackfoot, Quinn 2006 for Penobscot, Cook 2008 and Mühlbauer 2008 for Plains Cree, and Lochbihler 2012 for Ojibwe) in order to expand the diagram in (2b) to cover the Algonquian family as a whole. The ideal end result of such a project would be a unified analytical framework that encompasses the entire Algonquian family, covering in an integrated way both the synchronic variation among the languages and the diachronic stages through which this variation developed.

1.1.3 Theoretical goal: microparameters of agreement

The theoretical goal of this thesis is to draw upon the microparametric analysis of Algonquian agreement in order to shed light on the microparameters of agreement—that is, the small but significant ways in which agreement systems can vary. As the thesis proceeds, the microcomparative Algonquian data will allow the identification of a set of microparameters, including the identity of the probing feature (e.g. [Person] or [D]), the articulation of the probing feature (e.g. [Person] or [Person, Participant]), the structural location of the probe (on Voice0, Infl0, or T0), the presence or absence of an [EPP] feature on the probe, and the probe’s ability to override the Activity Condition, which normally prevents two probes from agreeing with the same goal. Some of these microparameters are unsurprising, but the theoretical value of the Algonquian case study lies in the richness of the data: the complexity of the agreement system and the documentation of its diachronic development allows the microparameters to be investigated in greater detail than is often the case.

It is also the case that the analysis of Algonquian agreement developed in this thesis is compatible with some theoretical models of agreement and not others, so a secondary theoretical contribution of this thesis is the identification of new data in support of particular theoretical proposals. These proposals include articulated probes (Bejar 2003; Bejar and
Rezac 2009), the presence of more than one probe in a clause (Baker 2008), the reclassification of some instances of agreement as clitic doubling (Arregi and Nevins 2008; Woolford 2010; Kramer forthcoming), the tolerance of failed agreement (Preminger 2009, 2010), the equidistance of multiple specifiers (Chomsky 1995, 2000, but not Chomsky 2001), the postsyntactic spell-out of (some) agreement morphology on the basis of case (Bobaljik 2008), the possibility of agreement that plays no role in licensing (Ritter and Rosen 2005), and the parameterization of the Activity Condition (Baker 2008, 2013).

1.1.4 Summary: Goals of this thesis

This section has set out the empirical, analytical, and theoretical goals of this thesis. These three goals are, in effect, three different approaches to answering a single question: what can we learn by taking a diachronic perspective on Algonquian agreement? By drawing on all three perspectives, the thesis is intended to be not only an exploration of the answers to this question, but also a more general effort to strengthen the bridges between Algonquian philology, Algonquian syntactic analysis, and syntactic theory.

1.2 Significance of the diachronic patterning of Algonquian agreement

What is so interesting about the diachronic patterning of agreement in Algonquian? This section gives a brief introduction to two particularly significant aspects of Algonquian agreement inflection that will be the primary concern of this thesis: the typologically unusual direct-inverse alignment system (§1.2.1) and the division of verb inflection into two parallel sets known as the INDEPENDENT and CONJUNCT ORDERS (§1.2.2), with the independent order having developed diachronically through the addition of noun inflection to the verb. Each of these properties is interesting on its own, but more interesting still is the fact that the two properties interact: the development of the independent order coincided with a change in the patterning of the direct-inverse system (§1.2.3). There must thus be some connection between the direct-inverse system and the independent-conjunct contrast. This interesting puzzle will guide us towards a new analysis of the direct-inverse system.

1.2.1 The direct-inverse alignment system

Perhaps the best-known property of Algonquian agreement is the system of direct-inverse alignment that it exhibits (e.g. Klaiman 1992). Under this system, the agreement inflection on a transitive verb serves to identify the two arguments, but it does not indicate their gram-
matical functions. For example, in the forms in (3), from the Central Algonquian language Ojibwe (Valentine 2001:287), the 1st- and 3rd-person arguments are indexed by the same morphemes in both forms: a 1st-person prefix n- and a 3rd-person suffix -g, even though their grammatical functions are reversed in the second form. (The notation “1—3”, conventionally used by Algonquianists, is to be read as “1st-person acting on 3rd-person.”)

(3) a. 1—3 n- wa-bm $\overline{a\cdot}$ -g
     1- see -DIR -3p
     'I see them'

b. 3—1 n- wa-bm $\overline{igo\cdot}$ -g
     1- see -INV -3p
     'they see me'

If the argument-indexing morphemes themselves do not indicate grammatical function, then how do we know which argument is the subject and which is the object? This role is served by a distinct morpheme known as the THEME sign, which directly follows the verb stem. Given an implicit hierarchy in which 1st-person arguments are ranked above 3rd-person arguments, the DIRECT theme sign -a in (3a) indicates that the higher-ranked argument acts on the lower-ranked argument (i.e. 1—3) while the INVERSE theme sign -igw in (3b) indicates the reverse (i.e. 3—1). (A more complete description of this system is given in Chapter 2.)

This strategy for alignment marking is typologically unusual. While partially similar systems are attested in various languages (Klaiman 1992; Zúñiga 2006), the Algonquian family is where the direct-inverse strategy reaches its most elaborate form (DeLancey 2001; Wunderlich 2005; Zúñiga 2006; see §2.5.2 for discussion). Algonquian is thus an essential test case for any theory of agreement that includes direct-inverse marking in its scope.

1.2.2 The independent and conjunct orders

In contrast to the direct-inverse system, the independent-conjunct distinction is less well known outside the Algonquianist literature. However, its diachronic origins and its ties to the patterning of the direct-inverse system make it both interesting and important.

The independent and conjunct orders are two parallel sets of verb inflection that mark mostly the same categories but have completely different forms. (The term “order” is used here in the sense of “set” or “kind”, not in the sense of linear order.) The two orders are conditioned by clause type: the independent order is canonically employed in main clauses
while the conjunct order is canonically employed in dependent clauses, although the details are complex and vary from language to language (see, e.g., Brittain 2001 and Cook 2008).

The contrast in form between the independent and conjunct orders is found in all branches of the Algonquian family, as illustrated in (4) for the Central Algonquian language Plains Cree, the Eastern Algonquian language Maliseet-Passamaquoddy, and the Plains Algonquian language Cheyenne. For each language, the two forms shown in (4) are both 1st-person plural forms of the same intransitive verb stem, but the agreement morphology that appears in the two orders is completely different.

(4) First-person plural subject agreement, independent vs. conjunct

a. Plains Cree (‘we run’, Dahlstrom 1991: 20)

\[
\begin{array}{ll}
\text{IND} & \text{CNJ} \\
ni-pimipahta-na-n & pimipahta-ya-hk \\
1- run -1p & run -1p
\end{array}
\]

b. Maliseet-Passamaquoddy (‘we dwell there’, Sherwood 1983: 213, 278)

\[
\begin{array}{ll}
\text{IND} & \text{CNJ} \\
n-wiki-pən & wikə-yek \\
1- dwell -1p & dwell -1p
\end{array}
\]

c. Cheyenne (‘we stand’, Leman 1979: 27, 112)

\[
\begin{array}{ll}
\text{IND} & \text{CNJ} \\
ná-néé-me & tséh-néé-tse \\
1- stand -1p & CNJ-stand-1p
\end{array}
\]

Importantly, the independent-order inflection bears a striking resemblance to the inflection that occurs on a possessed noun, as illustrated in (5) for Plains Cree. The example in (5a) shows an independent-order verb with a 1st-person plural subject, while the example in (5b) shows a noun with a 1st-person plural possessor. In both cases, the 1p argument is marked by the combination of the 1st-person prefix ni- and the 1st-person plural suffix -ina-n.

(5) 1st-person plural agreement (Plains Cree; Wolfart 1973:31)

\[
\begin{array}{ll}
\text{IND} & \text{CNJ} \\
ni-pimipahta-na-n & ni-te-m-ina-n \\
1- run -1p & 1- horse -1p \\
‘we run’ & ‘our horse’
\end{array}
\]

This correspondence is not an isolated property of the Cree examples in (5): it occurs across the Algonquian family and is robustly reconstructed in Proto-Algonquian, as shown in (6).
(Here and throughout the thesis, the sources for the reconstructed Proto-Algonquian forms are provided in the Appendix, which examines every paradigm in detail.)

(6) Correspondence of subject agreement and possessor agreement in Proto-Algonquian

<table>
<thead>
<tr>
<th></th>
<th>INDEPENDENT VERB</th>
<th>POSSESSED NOUN</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>PFX</td>
<td>SFX</td>
</tr>
<tr>
<td>1s</td>
<td>ne-</td>
<td>-Ø</td>
</tr>
<tr>
<td>2s</td>
<td>ke-</td>
<td>-Ø</td>
</tr>
<tr>
<td>3s</td>
<td>we-</td>
<td>-Ø</td>
</tr>
<tr>
<td>1p</td>
<td>ne-</td>
<td>-ena-n</td>
</tr>
<tr>
<td>21p</td>
<td>ke-</td>
<td>-enaw</td>
</tr>
<tr>
<td>2p</td>
<td>ke-</td>
<td>-wa-w</td>
</tr>
<tr>
<td>3p</td>
<td>we-</td>
<td>-wa-w</td>
</tr>
</tbody>
</table>

The correspondence of the two sets of agreement is well-studied in the historical literature (Goddard 1967:87, 1974b:325–27, 2007:251–65; Proulx 1982; Pentland 1999:239–40), and it has been established that the correspondence is not a coincidence—nor is it simply “a reflex of general economy principles”, as Bruening (2009b:32) suggests. Instead, there is a diachronic relationship between the two sets of inflection: the independent-order inflection originated in Pre-Proto-Algonquian through the addition of noun inflection to the verb. Prior to this point, the conjunct inflection would have been used in both main clauses and dependent clauses, before being displaced from main clauses by the innovative independent inflection.

There are at least three reasons to think that the independent inflection is innovative and denominal. Two reasons are suggestive and one is conclusive. The first suggestive reason is that the conjunct agreement inflection is fusional, consisting of a single suffix that sometimes indexes both arguments at once, while the independent agreement inflection is agglutinative, consisting of a prefix plus two clearly distinguished suffixes that index separate arguments. This difference is illustrated in (7), which provides a sample of the agreement affixes that occur on transitive verbs in the two orders in Proto-Algonquian.

1In full, Bruening suggests that “the parallels are probably a reflex of general economy principles: languages use the same grammatical elements for different functions”. However, it is difficult to see how economy is relevant. There are two sets of agreement inflection in Algonquian: a prototypically nominal set (the possessed noun inflection) and a prototypically verbal set (the conjunct order). It is unclear to me how economy can explain why some verbs take the prototypically nominal inflection (i.e. the independent order) and other verbs take the prototypically verbal inflection (i.e. the conjunct order). Surely this is no more economical than the alternative of using the nominal inflection for all nouns and the conjunct inflection for all verbs.
Comparison of conjunct and independent agreement on PA transitive verbs

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<table>
<thead>
<tr>
<th>ARG'TS</th>
<th>CONJUNCT</th>
<th>INDEPENDENT</th>
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</thead>
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<tr>
<td></td>
<td>suffix</td>
<td>prefix</td>
</tr>
<tr>
<td>1s—3s</td>
<td>-ak</td>
<td>ne-</td>
</tr>
<tr>
<td></td>
<td>1s—3</td>
<td>1</td>
</tr>
<tr>
<td>1p—3s</td>
<td>-akent</td>
<td>ne-</td>
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<td></td>
<td>1p—3</td>
<td>1</td>
</tr>
<tr>
<td>21p—3s</td>
<td>-ankw</td>
<td>ke-</td>
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<td></td>
<td>21p</td>
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<td>2s—3s</td>
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<td>ke-</td>
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<td></td>
<td>2p</td>
<td>2</td>
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<td>3s—4s</td>
<td>-t</td>
<td>we-</td>
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<td></td>
<td>3</td>
<td>3</td>
</tr>
</tbody>
</table>

In view of the well-known tendency for inflection to become more fusional over time (e.g. Dixon 1997:42), the fact that the conjunct agreement inflection is more fusional than that of the independent lends initial plausibility to the proposal that the conjunct is archaic and the independent is innovative, although it does not prove that this is the case.

The second piece of suggestive evidence is the correspondence between the agreement inflection that appears on independent verbs and possessed nouns, shown in (6) above. The two sets of agreement markers are similar in the daughter languages and are identical when reconstructed for Proto-Algonquian by the comparative method. This correspondence supports the proposal that the two sets of agreement share a common origin. In fact, we might wonder whether an even stronger proposal is possible: rather than sharing a common origin with noun inflection, could the independent order simply be noun inflection? That is, could the independent verb actually be a noun, in some formal sense? Such an analysis would be difficult to maintain, however, as the noun-based agreement markers of the independent order are interspersed with other morphology that is exclusively verbal, such as theme signs, negative markers, and tense and mode markers, none of which appear on nouns (see Chapters 4, 5, and 6). Furthermore, in most of the daughter languages, the form of the independent inflection has diverged slightly from that of its nominal counterpart. In Cree, for example, possessed nouns are inflected with three person prefixes (ni- 1, ki- 2, and o- 3) but independent verbs are inflected only with two person prefixes (ni- 1 and ki- 2, leaving 3 unmarked).
Such differences indicate that the relationship between the noun and the independent verb is one of diachronic transfer rather than of synchronic identity.

The preceding two observations suggest that the agreement inflection of the independent order is less archaic than that of the conjunct order and shares a common origin with possessed noun inflection. This state of affairs makes it tempting to conclude that the independent order arose through the addition of noun inflection to the verb. Based on the preceding evidence alone, this conclusion is entirely speculative. However, there is an additional piece of evidence that provides a compelling confirmation of this conclusion—and, furthermore, it also clarifies exactly how the addition of noun inflection to the verb must have taken place. The evidence involves a rather mysterious component of the independent inflection that Goddard (2007) refers to as the “formative.” This morpheme, which appears directly following the theme sign, has various allomorphs in Proto-Algonquian, including -ehm, -w, and -en(e∙) (discussed further in Chapter 6). Examples are given in (8).

(8) “Formative” morphemes in the Proto-Algonquian independent inflection

a. Formative -ehm
   ne- nepa- [hm] -ena-
   1- sleep ?? -1p
   'we sleep'

b. Formative -w
   ne- wa-pam -a- [w] -ena-n -a
   1- see -DIR ?? -1p -3s
   'we see him/her'

c. Formative -en(e∙)
   ne- wa-pam -ekw [ene∙] -na-n -i
   1- see -INV ?? -1p -0s
   'it sees us'

The function of the formative is not particularly clear. Pentland (1999) glosses the -ehm formative as “FILLER” and Goddard (2007:264) concludes that attempts to assign a meaning to the formative can “reasonably be abandoned”. Diachronically, the absence of a clear function for the Proto-Algonquian formative is reinforced by the fact that many daughter languages have either levelled it out, resegmented it as part of a neighbouring morpheme, or reanalyzed it as serving a new function (§7.3.2.6). Interestingly, however, the same set of formative morphemes also appears elsewhere in the grammar of Proto-Algonquian, and in
this other context the formatives do have a clear function: as Goddard (1974b, 2007:251–63) shows, they also function as nominalizers, deriving nouns from various classes of verbs. Examples of the formative -ehm functioning as a nominalizer are shown in (9). (The notation ‘0s’ refers to the inanimate singular; see §1.3.)

(9) The -ehm nominalizer in Proto-Algonquian (Goddard 2007:259)

<table>
<thead>
<tr>
<th>VERB</th>
<th>DERIVED NOUN</th>
</tr>
</thead>
<tbody>
<tr>
<td>wi-kiwa-w dwell.3p ‘they dwell’ → [wi-kiwa]-hm-i ‘dwelling’</td>
<td>[dwell.3p]-NOM-0s</td>
</tr>
<tr>
<td>akwi-wear.as.robe ‘to wear as a robe’ → [akw]-ehm-i ‘robe’</td>
<td>[wear.as.robe]-NOM-0s</td>
</tr>
<tr>
<td>wenike-portage ‘to portage’ → [wenika]-hm-i ‘portage’</td>
<td>[portage]-NOM-0s</td>
</tr>
</tbody>
</table>

The formative thus has the following status: when it occurs on a noun, it is a nominalizer, while when it occurs on an independent verb, it plays no obvious function. It seems, then, that the diachronic process that created the independent inflection transferred not only nominal agreement to the verb, but also a nominalizer, thus causing the independent verb inflection to contain a “fossilized” nominalizer that lacks any obvious function.

The presence of this fossilized nominalizer is important, as it indicates that nominalization must have been involved in the genesis of the independent verb inflection. In particular, it is thought that the independent inflection arose from the reanalysis of deverbal nouns as verbs (Goddard 1967:87, 1974b:325–27; Proulx 1982). To see how this is the case, consider the following scenario, sketched by Proulx (1982:395). We begin in Pre-Proto-Algonquian with a verb stem such as api- ‘sit’. Since the independent order did not yet exist, this verb stem would presumably have been inflected in the conjunct order in main clauses, as shown for a 1st-person subject in (10). (I use the notation [v] to mark the verb stem.)

(10) Pre-PA verb stem plus conjunct verb inflection

    [v api] -ya-n-i
    [v sit] -1s -INDIC

    ‘I sit’
Instead of inflecting the stem *api-* ‘sit’ as a verb, the nominalizer *ehm* could be added to derive a deverbal noun meaning ‘sitting place’ or ‘seat’, as shown in (11).2 (I use the notation \([N]\) to mark the derived noun stem.)

(11) Pre-PA noun derived from verb stem

\[ \begin{align*} &_{[N \text{ [v} \text{ api] -hm]} \\ &_{[N \text{ [v} \text{ sit] -NOM]} \\ &\text{'sitting place, where one sits, seat}' \end{align*} \]

Like any Algonquian noun, the deverbal noun in (11) could be inflected with possessive agreement, as shown in (12), in which a 1st-person plural possessor is marked by the 1st-person prefix *net-* (with epenthetic *t*) and the 1st-person plural suffix *-ena∙n*.

(12) Possessed deverbal noun

\[ \begin{align*} &\text{net- } _{[N \text{ [v} \text{ api] -hm]} \text{ -ena∙n} \\ &1- \begin{bmatrix} [N \text{ [v} \text{ sit] -NOM]} & -1p \end{bmatrix} \\ &\text{'our sitting place, where we sit, our seat'} \end{align*} \]

It would presumably have been possible for this possessed noun to serve as the predicate in a verbless copular sentence such as (13). Such verbless sentences are common in Algonquian languages (see e.g. Déchaine 1997 and Blain 1999 for Plains Cree).

(13) Predicative use of possessed deverbal noun

\[ \begin{align*} &\text{net- } _{[N \text{ [v} \text{ api] -hm]} \text{ -ena∙n } ma\text{-hi}\text{\textsuperscript{3}} \\ &1- \begin{bmatrix} [N \text{ [v} \text{ sit] -NOM]} & -1p \end{bmatrix} \text{ over.there} \end{align*} \]

\[ 'over there is our sitting place / over there is where we sit' \]

Since the equational reading ‘over there is where we sit’ differs only in emphasis from the non-equational reading ‘we sit over there’, it would take only a minor pragmatic change for a sentence like (13) to be reanalyzed as encoding the latter meaning, as shown in (14). (Goddard (1974b:327) refers to this reanalysis as the “quickening” of predicative nouns.)

---

2In Proto-Algonquian proper, this noun, like all nouns, would also be inflected with a word-final outer suffix marking the number and gender of the noun (in this case inanimate singular *i*). However, Goddard (2007:265) proposes that at the stage of Pre-Proto-Algonquian at which the independent order was innovated, the outer suffix functioned as a definite article and was thus not obligatory on nouns.

3The Proto-Algonquian demonstrative *ma-hi* ‘over (here, there)’ is from Goddard 2003:56.
Chapter 1

(14) Loss of equational meaning

\[
\text{\textit{net- [\text{v api}] -hm -ena-n ma-hi}}
\]

\textbf{1- [\text{v sit}] -?? -1p over.there}

\textit{'we sit over there'}

Pragmatically, the shift to a non-equational reading is only a minor change, but its grammatical consequences are significant: with the loss of the equational reading, the notion of sitting is no longer expressed nominally, thus entailing a reanalysis of the deverbal noun ‘place where we sit’ as the simple verb ‘we sit’—a reanalysis that gives rise to a new type of verb form. (Informally, it is as though speakers of Pre-PA “forgot” that such deverbal nouns were nouns and began treating them as verbs again, in spite of the presence of the -ehm nominalizer.)

As a result of the change in (14), the agreement that originally marked the possessor of the noun now marks the subject of the newly-innovated verb form. An entirely new paradigm of verb inflection has thus been created out of what was originally noun inflection. Note that the -ehm nominalizer remains fossilized inside this new verb inflection. The reanalysis has left the nominalizer without any obvious grammatical function, since the form that it appears in has ceased to be a nominalization, but its presence provides important evidence for the nominal origin of the independent order agreement inflection.

The pathway of reanalysis from possessed nominalization to main-clause verb is not unique to Algonquian: Gildea (2008) documents similar parallels between main clauses and nominalizations in several South American languages and concludes that “the explanation for isomorphism between nominalizations and main clauses is that the former evolve into the latter” (p. 70). I adopt the same evolutionary perspective in this thesis. As discussed above, I do not think it is viable to claim that the independent verb is synchronically a nominalization; instead, the correspondence with noun inflection is explained diachronically by the fact that the independent order arose from nominalization. This position weakens the synchronic connection between the noun and the independent verb, but it does not erase it: even though the independent verb is not synchronically a noun, it is reasonable to suspect that some of its original nominal features may have been retained and may continue to exert an influence on its morphosyntactic behaviour, as I will propose more explicitly in Chapter 6.

The reanalysis from noun to verb is in fact even more striking than it appears in the simple example in (14), as there are actually two layers of inflection that can appear on the noun,

\footnote{As pointed out to me by Conor Quinn (p.c.), this process is reminiscent of the concept of ‘insubordination’ developed by Evans (2007), although in the Algonquian and South American cases it applies to nominalized verbs rather than to clausally subordinated verbs.}
and both of these layers were transferred to the independent verb. The first layer is possessor agreement, which consists of the prefix and inner suffix, as we have seen. The second layer marks features of the head noun itself (number, gender, obviation) by means of a second suffix, which I will refer to as the OUT SUFFIX. In Proto-Algonquian proper, the outer suffix is obligatory on all nouns, but Goddard (2007:265) proposes that in the stage of Pre-Proto-Algonquian at which the independent order was innovated, the outer suffix functioned as a definite article, appearing only on definite nouns. If we adopt this proposal, the animate outer suffixes -a (sg.) and -aki (pl.) would have had the distribution illustrated in (15).

(15) Outer suffix as definiteness marker in Pre-PA (Goddard 2007)

<table>
<thead>
<tr>
<th>a. Indefinite</th>
<th>b. Definite Sg</th>
<th>c. Definite Pl</th>
</tr>
</thead>
<tbody>
<tr>
<td>maθkw</td>
<td>maθkw-a</td>
<td>maθkw-aki</td>
</tr>
<tr>
<td>‘a bear/bears’</td>
<td>‘the bear’</td>
<td>‘the bears’</td>
</tr>
</tbody>
</table>

The co-occurrence of both layers of noun inflection is illustrated in (16), in which the prefix and inner suffix index the 1st-person plural possessor while the plurality of the definite head noun is marked by the outer suffix.

(16) PFX N INNER OUTER

<table>
<thead>
<tr>
<th>ne-</th>
<th>sîhs</th>
<th>-ena-n</th>
<th>-aki</th>
</tr>
</thead>
<tbody>
<tr>
<td>1-</td>
<td>uncle</td>
<td>-1p</td>
<td>-3p</td>
</tr>
<tr>
<td>‘our uncles’</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Both layers of noun inflection were carried over onto the independent verb, and their patterning was systematic: as schematized in (17), the possessor agreement (prefix and inner suffix) became subject agreement while the definite head-noun marker (outer suffix) became definite object agreement.\(^5\) An example of the resulting noun-verb parallel is given in (18).

(17) Correspondence between noun inflection and independent verb inflection

<table>
<thead>
<tr>
<th>MORPHEME</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
</tr>
<tr>
<td>Prefix</td>
</tr>
<tr>
<td>ROLE ON NOUN</td>
</tr>
<tr>
<td>ROLE ON VERB</td>
</tr>
</tbody>
</table>

\(^5\)This description applies to direct verb forms (§1.2.1). In inverse verb forms, the alignment is exactly the opposite. See Chapter 2 for the full details.
Chapter 1

(18) Correspondence between noun form and independent verb form

<table>
<thead>
<tr>
<th>NOUN</th>
<th>INDEPENDENT VERB</th>
</tr>
</thead>
<tbody>
<tr>
<td>ne- šihš</td>
<td>ne- wa-pama- w -ena-n -aki</td>
</tr>
<tr>
<td>1- -1p</td>
<td>1- see.DIR.FTV -1p -3p</td>
</tr>
<tr>
<td>‘our uncles’</td>
<td>‘we see them’</td>
</tr>
</tbody>
</table>

The development of the independent order thus is more than simply the conversion of possessor inflection into subject inflection: it is the conversion of two layers of noun inflection into a new subject and object agreement system. From an analytical perspective, this remarkable morphosyntactic change functions like a syntactic experiment: what would happen if we took agreement morphology from a noun and added it to a verb? The Algonquian answer to this question is in (18), and its implications will be explored throughout this thesis.

1.2.3 Interaction of the direct-inverse and independent-conjunct systems

The preceding sections have presented two ways in which the agreement system of the Algonquian verb is significant for syntactic theory. The first is the typologically unusual direct-inverse alignment system and the complex set of subject and object agreement markers that depends upon it. The second is the remarkable diachronic development that gave rise to the independent-conjunct contrast. What is even more significant, however, is that these two properties are connected: the patterning of the direct-inverse system changed when the independent-order inflection was created. If we compare the conjunct and independent orders, we see that the number of forms that count as inverse (theme sign -ekw; §1.2.1) has increased in the independent, as shown in (19). (The full details are given in Chapter 2.)

(19) Occurrence of the inverse theme sign -ekw

<table>
<thead>
<tr>
<th>CONJUNCT</th>
<th>INDEPENDENT</th>
</tr>
</thead>
<tbody>
<tr>
<td>1—2</td>
<td>—</td>
</tr>
<tr>
<td>2—1</td>
<td>—</td>
</tr>
<tr>
<td>3—4</td>
<td>—</td>
</tr>
<tr>
<td>4—3</td>
<td>-ekw</td>
</tr>
<tr>
<td>1—3</td>
<td>—</td>
</tr>
<tr>
<td>2—3</td>
<td>—</td>
</tr>
<tr>
<td>3—1</td>
<td>—</td>
</tr>
<tr>
<td>3—2</td>
<td>—</td>
</tr>
</tbody>
</table>
Apparently, then, the development of the independent order affected the direct-inverse system in such a way as to cause the inverse marker -ekw to spread to the 3—2 and 3—1 forms, where it did not appear in the original conjunct inflection. The creation of the independent inflection must therefore have been more than just a superficial morphological change, as its effects on morphosyntactic structure must have extended deeply enough to disrupt the patterning of the pre-existing direct-inverse system. This connection between the two signature properties of the Algonquian verb heightens the complexity of the data, but it also narrows the set of possible analyses, as it excludes any analysis that does not allow for variation in the direct-inverse pattern as a function of the independent-conjunct contrast.

1.3 Empirical background

This section provides the background that is necessary in order to understand the data examined in this thesis. The empirical focus of the thesis is Proto-Algonquian, the reconstructed ancestor of the Algonquian languages. This section begins by explaining what Proto-Algonquian is and justifying the selection of a reconstructed language as the object of analysis (§1.3.1). An introductory sketch of the grammar of Proto-Algonquian is then given, which serves as a starting point that will be augmented as the thesis progresses (§1.3.2).

1.3.1 What is Proto-Algonquian?

Proto-Algonquian (PA) is the reconstructed ancestor of the Algonquian languages, a family of Native American languages spoken across a territory that stretches from the Great Plains to the Atlantic seaboard. The major Algonquian languages are listed in (20) (Goddard 1996; Mithun 1999; Campbell 1997) and their approximate locations are illustrated on the map in (21). Although the languages are conventionally divided into the Plains, Central, and Eastern subgroups, only the Eastern Algonquian languages form a true genetic subgroup; the Central and Plains groupings are areal (Goddard 1980, 1994b).

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6The nomenclature for these languages varies. Meskwaki and Sauk are also known as Fox; Ojibwe is also known as Anishinaabemowin; Innu is also known as Montagnais; Abenaki is best known in theoretical work through the Penobscot dialect of Eastern Abenaki; Massachusett is also known as Natick (archaically) and Wampanoag (in language reclamation efforts); Gros Ventre is also known as Atsina.
Algonquian languages

a. **Central Algonquian**: Meskwaki-Sauk-Kickapoo, Shawnee, Miami-Illinois, Ojibwe-Potawatomi, Cree-Innu-Naskapi, Menominee

b. **Eastern Algonquian**: Mi’gmaq, Maliseet-Passamaquoddy, Abenaki, Southern New England Algonquian (e.g. Massachusett), Mahican, Delaware (Munsee and Unami), Nanticoke, Powhatan

c. **Plains Algonquian**: Cheyenne, Arapaho-Gros Ventre, Blackfoot

Approximate locations of major Algonquian languages (based on Goddard 1996)

Proto-Algonquian, the ancestor of these languages, was spoken approximately 3,000 years ago (Siebert 1967:39; Pentland 1979:ii). The speakers of Proto-Algonquian appear to have resided in the vicinity of the Great Lakes; locations north of Lake Ontario (Siebert 1967) and west of Lake Superior (Goddard 1994b:207) have been suggested.

Proto-Algonquian descends from a more ancient ancestor known as Proto-Algic, which also gave rise to the Wiyot and Yurok languages on the coast of California (Sapir 1913, 1923; Haas 1958; Goddard 1975). The structure of the Algic family is illustrated in (22).
Algic languages

Proto-Algic

Wiyot Yurok Proto-Algonquian

Algonquian languages

In contrast to Proto-Algonquian, which can be reconstructed with great certainty, the reconstruction of Proto-Algic is less straightforward. Although efforts have been made (Proulx 1984b, 1985, 1991, 1992, 1994, 2004), even the phonology of Proto-Algic remains unclear, let alone its grammar. I will therefore not consider Proto-Algic in this thesis. The data examined here goes back only as far as the clearly-reconstructed inflection of Proto-Algonquian.

The reconstruction of Proto-Algonquian has been so successful because most of the daughter languages are very closely related, to the extent that they “may summarily be described as a whole without undue violence” (Teeter 1976:512–13). The great similarity of the Algonquian languages means that reconstruction of the protolanguage through the comparative method is often simply mechanical—indeed, it has been possible to produce a computer-generated dictionary of Proto-Algonquian containing over 4000 entries (Hewson 1993). As an indication of the similarity of the languages, consider the reflexes of PA *eθkwe·wa ‘woman’ in (23): only the Plains languages have markedly divergent forms.\(^7\)

(23) Meskwaki ihkwe·wa, Shawnee -ehkwe·w, Miami-Illinois -ihkwe, Potawatomi kwe·, Menominee -hki-w, Plains Cree iskwe·w, Innu iškwe·w, Mi’gmaq skwe·, Maliseet-Passamaquoddy skwe·, Western-Abenaki (a)skwa, Massachusetts skwa, Mahican -axkwa·w, Munsee óxkwe·w, Cheyenne hēʔe, Arapaho ʔsei, Gros Ventre ʔθe·, Blackfoot ski·ma

Another indication of the great similarity of the languages is the fact that Bloomfield’s (1946) celebrated Algonquian sketch is, as Hockett (1948a:120) puts it, both an outline grammar of Proto-Algonquian and an outline grammar of the daughter languages at the same time.

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The focus of this thesis is specifically on Proto-Algonquian agreement inflection, which has been reconstructed in detail by the comparative method (Bloomfield 1946; Goddard 1967, 1974b, 1979a,b, 1983, 2007; Proulx 1980b, 1982, 1984a, 1990; Pentland 1999). The reconstruction of the independent order in particular is due primarily to the influential work of Goddard (1967, 1974b, 2007). To illustrate just how detailed and well-established the reconstructions are, I will present two cases in which scholars disagree about the reconstructions. The almost trivial nature of these disagreements will demonstrate the highly circumscribed nature of the remaining uncertainties in the reconstruction of Proto-Algonquian.

The first disagreement involves the forms of the independent verb that contain a “formative” morpheme in -n, underlined in the example in (24).

(24) newa-panta_ne-na-ni
    ‘we see it’ (Proto-Algonquian)

It is clear from the comparative evidence that on the surface, this -n must have been followed by a long -e-, as shown in (24). However, Pentland (1999) and Goddard (2007) disagree about the underlying source of this long -e-. Pentland proposes that the formative is underlyingly -nay, and undergoes coalescence with the following suffix -ena-n to give -ne-na-n on the surface. Goddard instead proposes that the underlying form of the morpheme is -ne-, with the following vowel deleting to give surface -ne-na-n. These two proposals are compared in (25).

(25) Source of long e- in plural n-suffix forms
    a. Pentland 1999  -nay + -ena-n → -ne-na-n  (coalescence of aye to e-)
    b. Goddard 2007  -ne- + -ena-n → -ne-na-n  (deletion of e)

While this disagreement affects our understanding of the morphophonology of PA, it says nothing about the morphosyntactic system, as the same two morphemes are present in either analysis and it is only the details of their form that differ.

The second disagreement is similar. It involves the so-called “m-suffix” forms of the independent verb. Both Pentland (1999) and Goddard (2007) agree that in plural forms, the formative suffix -ehm appeared, underlined in (26). Note that in this example, the formative suffix is followed by a plural agreement suffix.

(26) ne-pankihsin-ehm-ena-
    1-fall-m-1p
    ‘we fall’ (Proto-Algonquian)
Chapter 1

In singular forms, however, no plural agreement suffix appears. If we simply remove the plural suffix in (26), we get the hypothetical form in (27).

\[(27) \ ^{2}ne-pankikh\text{"}in-ehm \]
\[1\text{-fall}-m \]
\[{}^{'}I \text{ fall}{}^{'} \text{ (Proto-Algonquian?)} \]

However, this is not a well-formed Proto-Algonquian word, as final consonants are not permitted (Bloomfield 1946:93). The form instead surfaced as nepankikhšine, with the -ehm suffix reducing to -e. Pentland and Goddard disagree on the grammatical status of the reduction of -ehm to -e: Pentland considers the deletion of hm to be an active synchronic phonological process within Proto-Algonquian while Goddard (2007:2254) considers it to be a diachronic sound change that applied in Pre-Proto-Algonquian, leaving -e as the underlying form in PA proper. Again, this disagreement affects our understanding of the morphophonology of PA but has little effect on the morphosyntactic system.

These two examples illustrate that the remaining uncertainties in the reconstruction of Proto-Algonquian are both highly circumscribed and also generally limited to matters of morphophonology. The basic patterning of the agreement system, which is the focus of this thesis, is nearly identical under both Goddard's and Pentland's accounts.\(^8\) The reconstructed data examined in this thesis is thus as solid as any reconstruction could possibly be.

Regardless of how well-motivated the reconstruction of Proto-Algonquian is, however, it remains the case that it is a reconstruction, and is thus an analytical object created by the linguist rather than a true set of empirical data. Because of this, one might question whether devoting a thesis to the analysis of what is, in effect, an imaginary language is a valid, meaningful, or productive pursuit. I contend that it is, for two reasons. The first reason is that the reconstructed inflection of Proto-Algonquian is not highly abstract: nearly all of the inflectional details are also attested in an identical form in at least one daughter language (and usually in many of them). For any aspect of the analysis, then, the Proto-Algonquian form that we are analyzing is always matched by some attested form in a daughter language. There is thus never any doubt that the data we are analyzing is a genuine linguistic system.

Even if this were not the case, however, I feel that there is a more general reason why the analysis of Proto-Algonquian is useful: it provides us with Stage 1 of a diachronic analysis of

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\(^8\) It should be noted, however, that Proulx (1980b, 1982, 1984a, 1990) has put forth a view of the development of the independent order that differs significantly from Goddard’s model. Since Proulx’s approach does not appear to have gained widespread acceptance in the literature, I have chosen not to follow it in this thesis.
the inflection of the Algonquian languages, which, as discussed in Section 1.1.2, can then be traced forward to link up with synchronic analyses of the contemporary daughter languages, thereby enabling us to fill in a diachronic grammatical analysis of the entire language family. This is where the analysis of Proto-Algonquian becomes truly useful: not as an analysis of a language in its own right, but as a tool for developing hypotheses that provide deeper insight into the daughter languages. It is in this spirit that I undertake this thesis.

Given my focus on Proto-Algonquian, which is effectively a distillation of the most prototypical properties of the daughter languages, it is worth commenting on my view of the import of the analysis of Proto-Algonquian with respect to the daughter languages. Strictly speaking, the analysis that I propose for Proto-Algonquian says absolutely nothing about any of the daughter languages, as each language is a distinct grammatical system. On a more practical level, however, the closeness of the languages makes it likely that in many cases, the analysis of Proto-Algonquian will be largely applicable to the daughter languages as well. This is particularly true for the Central and Eastern Algonquian languages, which, with the exception of Mi'gmaq, are all quite similar both phonologically and grammatically; the Proto-Algonquian forms in this thesis should be readily recognizable to specialists in these languages. It is also true for the Plains Algonquian languages Cheyenne and Arapaho-Gros Ventre, which are phonologically innovative but retain a very Algonquian grammatical structure. It is less true for the Plains Algonquian language Blackfoot, however, which is unquestionably the most divergent member of the family; Goddard (2007:207) suggests that it may be “a sister language to all the rest collectively”, while Pentland (1993) refers to it as a “post-creole continuum”. The relevance of the analysis in this thesis for Blackfoot is thus less direct: while it still serves as Stage 1 of a diachronic account, the changes required in order to reach contemporary Blackfoot are more dramatic than they are for the other languages.

Due to the close similarity of the Algonquian languages, I will sometimes generalize the Proto-Algonquian data as though I were speaking of the Algonquian languages as a whole, making statements about “the Algonquian verb” or “the Algonquian clause”. Such statements indicate that I expect the property in question to hold for most of the daughter languages. I am not claiming, however, that the property definitely holds for any particular daughter language, or that it is applicable to all of the daughter languages. I intend only to suggest that the property in question is commonly found in the Algonquian languages and thus forms part of the “genius” of these languages, to use Baker’s (1996) term. While the generalizations and analytical strategies proposed in this thesis are likely to be relevant to many Algonquian languages, at least in modified form, I make no particular claims about the analysis of any
individual daughter language. The details of the analysis apply only to Proto-Algonquian, even if I suspect that their applicability may be much broader.

Finally, while the main focus of the thesis is on Proto-Algonquian, it should not be forgotten that many Algonquian languages continue to be spoken with a vitality that goes well beyond the dry reconstructed grammatical forms considered here. Several of the modern Algonquian languages play a role in this thesis as well. Plains Cree is the westernmost dialect of Cree and, as of 1996, was spoken by approximately 26,000 people in central Alberta and Saskatchewan (Wolfart 1996). Innu (also known as Montagnais) is a close relative of Cree with approximately 9000 speakers in nine communities in the south-eastern part of Quebec and central Labrador (Clarke and MacKenzie 2005); it is also the language that I am the most familiar with from my own fieldwork (Oxford 2008). Ojibwe is a family of closely-related languages (Rhodes 2006) with approximately 50,000 speakers in total (Hermes and King 2013) in Canada and the United States, centred on the Great Lakes but spanning from Alberta to Quebec in Canada and from Montana to Michigan in the United States. Maliseet-Passamaquoddy is spoken in New Brunswick and Maine and had approximately 500 speakers in the 1990s (Leavitt 1996). Munsee Delaware was spoken at the time of first European contact around the upper Delaware and lower Hudson rivers, including what is now Manhattan (Goddard 1982); after subsequent migrations, it was last spoken in Moraviantown in western Ontario. By 1982 there were at most 20 native speakers of Munsee (Goddard 1982) and by 2002 it was reported that only four native speakers remained.9 Meskwaki (also known as Fox) is perhaps the most conservative Algonquian language (Hewson 2009) and is spoken mostly at the Meskwaki Settlement in Iowa; in 2003 there were approximately 200 speakers (Thomason 2003). Kickapoo, closely related to Meskwaki, has approximately 500 speakers in Kansas, Texas, Oklahoma, and Coahuila in Mexico (Golla 2007).

1.3.2 A grammatical sketch of Proto-Algonquian

This section provides an introductory sketch of Proto-Algonquian. The purpose is not to present the data that this thesis is concerned with, as that data will be presented when relevant as the thesis proceeds. The purpose here is simply to provide the background information that is required in order to understand the data and the conventions for its presentation.

Use of asterisks. When citing PA forms, I will not follow the historical linguistic convention of marking reconstructed forms with an asterisk. I avoid the use of asterisks because

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there is a risk of ambiguity: since the scope of this thesis includes not only philology but also theoretical linguistics, the appearance of an asterisk could be misinterpreted as indicating ungrammaticality rather than reconstruction. Instead of marking all PA forms with asterisks, I simply note here that all PA forms cited in this thesis are indeed reconstructions. When forms from the daughter languages are cited, the language will always be clearly identified.

**Orthography and inventory.** I transcribe PA forms using the conventional Algonquianist orthography, which is illustrated in the phoneme inventories in (28). PA forms are set in italics and vowel length is marked using a middle dot (e.g. short e vs. long e•). The symbols have approximately their expected phonetic values and the transcriptions can be converted to broad IPA by changing č, š, y to [tʃ, ʃ, j]. The glottal stop ? is also written as q in the older literature (e.g. Bloomfield 1946).

(28) Proto-Algonquian phoneme inventory

<table>
<thead>
<tr>
<th>Vowels</th>
<th>Consonants</th>
</tr>
</thead>
<tbody>
<tr>
<td>i· i o· o</td>
<td>p t č k ?</td>
</tr>
<tr>
<td>e· e a· a</td>
<td>θ s š h</td>
</tr>
<tr>
<td>m n</td>
<td>w r y</td>
</tr>
</tbody>
</table>

**Phonology.** The phonology of PA is not particularly complex. The most prominent process that we will encounter is the palatalization of t, θ to č, š before i, i·, y (Bloomfield 1946:92). This process is common in the conjunct-order inflection, in which the 3rd-person suffix -t becomes -č when followed by the indicative marker -i. Another common process is vowel epenthesis, but the status of a particular vowel as epenthetic or underlying is sometimes unclear. The 1st-person plural suffix of the independent order, for example, appears as -na-n after a vowel and -ena-n after a consonant, and it is difficult to determine whether the e is underlying (thus deleted in -na-n) or epenthetic (thus inserted in -ena-n). I will follow Goddard (2007) in uniformly including such “linking vowels” in the citation form of the relevant morphemes (e.g. -ena-n) without necessarily claiming that they are fundamentally present.

**Nominal categories.** All PA nouns carry an outer suffix that marks three categories: number (singular or plural), grammatical gender (animate or inanimate; there is no masculine/feminine distinction), and obviation (proximate or obviative). The category of obviation distinguishes among the animate 3rd-person nominals in a clause: only one animate
3rd-person, normally the most topical, is marked as proximate, and any other animate 3rd-persons are marked as obviative. The set of outer suffixes is shown in (29). (I refer to this suffix as the “outer suffix” because it follows the possessor agreement suffix, as in (16) above.)

(29) Forms of the PA outer suffix

<table>
<thead>
<tr>
<th></th>
<th>SG</th>
<th>PL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Animate proximate</td>
<td>-a</td>
<td>-aki</td>
</tr>
<tr>
<td>Animate obviative</td>
<td>-ari</td>
<td>-ahi</td>
</tr>
<tr>
<td>Inanimate</td>
<td>-i</td>
<td>-ari</td>
</tr>
</tbody>
</table>

The three classes of 3rd-person nominals in (29) are distinguished not only by the forms of the outer suffix, but also by their morphosyntactic patterning, so it is important to be able to distinguish them. I will use the following notation: “3” for animate proximates, “4” for animate obviatives, and “0” for inanimates. The use of “0” for inanimates is a well-established Algonquianist convention (e.g. Hockett 1948b:8; Wolfart 1973:13; Pentland 1999:227; Goddard 2007:208). The use of “4” for obviatives does have precedents (e.g. Frantz 1971:15; Brittain 1999a:xiii; Quinn 2006:20), but the alternative notation “3’” is much more common. I have nevertheless chosen to use “4” because I feel that it is a cleaner and simpler notation. In view of this notation, it will sometimes be convenient to refer to obviatives as “4th persons”, but it should be kept in mind that 3, 4, and 0 are really all just sub-types of 3rd-person. In glosses, I will often translate the obviative as ‘the other’ (e.g. a 3—4 form will be glossed as ‘s/he sees the other’); this translation is rather clunky and artificial, but it has the virtue of clearly indicating the obligatory disjointness and low topicality of the obviative argument.

**Pronominal categories.** Personal pronouns, nominal possessor agreement, and verbal subject agreement all encode person (1, 2, 3) and number (singular and plural). The resulting set of categories is illustrated by the possessed noun paradigm in (30), in which the prefix and inner suffix work together to encode the person and number of the possessor.
As indicated in (30), PA distinguishes two types of 1st-person plural: exclusive (1p) and inclusive (21p). The inclusive form is in fact grammatically second-person, as indicated by the use of the second-person prefix \textit{ke-}; this is reflected by the conventional abbreviation of such forms as ‘21’ or ‘21p’. I will most often cite the exclusive 1p form in this thesis, and I will usually simply gloss it using ‘we/us/our’ without making explicit note that it is exclusive.

Note that the morphological marking of singular and plural possessors differs: plural possessors are marked by a combination of the person prefix and the inner suffix while singular possessors are marked by the person prefix alone; the inner suffix is null. I will thus normally use plural arguments in my examples (e.g. 1p rather than 1s) in order to observe the agreement inflection in its most elaborate form. Aside from the presence or absence of the inner suffix, the morphosyntactic behaviour of singular and plural arguments in PA is parallel, so there is no risk that focusing on plural forms will distort the empirical picture.

\textbf{Verb classes.} Algonquian verbs fall into the four grammatical classes in (31), which are determined by a combination of transitivity and animacy. Each class is characterized by distinct derivational and inflectional morphology.
At the outset, this thesis will primarily be concerned with the Transitive Animate (TA) verb class, in which both of the arguments are animate, since such verbs are where the direct-inverse system is fully elaborated. The analysis will eventually be extended to the other verb classes as well (§4.6). Following Algonquianist convention, the arguments of a transitive verb are indicated using the notation “X—Y”, where X is the logical subject (prototypically the agent) and Y is the logical object (prototypically the theme). For example, “1p—3s” indicates that the subject is 1st-person plural and the object is 3rd-person singular. It should be noted that the two arguments of a transitive verb are always distinct: there are no transitive forms such as 1—1, 2—2, or 3—3, in which the two arguments are coindexed, because such contexts trigger the use of derived intransitive reflexive forms instead. It is also not possible to have a 3—3 form in which the two arguments are disjoint, as one of the two arguments would obligatorily be marked as obviative in this context (3—4 or 4—3). There is thus always an asymmetry in the features of the two arguments of a transitive verb.

**Inflectional paradigms.** The reconstructed PA agreement paradigms for nouns, independent verbs, and conjunct verbs are listed in the appendix to this thesis, which contains a series of 22 tables in which each morpheme is glossed, the sources for the reconstructions are identified, and any matters of uncertainty are discussed. These paradigms are the body of data upon which this thesis is based. Since the sources are given in the appendix, I will not normally cite a source every time I present a PA form in the main text. The sources for any form that I present can be found by looking up the form in the appendix.

The basic properties of verb inflection—the direct-inverse system and the independent-conjunct contrast—were discussed in Section 1.2 above. In addition to the independent and conjunct orders, there is also a third order, the IMPERATIVE, which contains forms for 2s, 2p, and 21p subjects only. Bloomfield (1946:100–103) also identifies a PROHIBITIVE order and an INTERROGATIVE order, which appear to be based on the conjunct order and are less well-attested in the daughter languages. Only the independent and conjunct orders are considered.
in this thesis, as these are the only orders that are both widely attested and contain forms for all possible subject-object combinations.

**Syntax.** Algonquian languages can be described as non-configurational, polysynthetic, and head-marking (e.g. Junker 2004:346). Due to the rich system of person and number agreement for possessors, subjects, and objects, the expression of arguments by overt nominals is optional. For example, the TI verb form in (32), repeated from (24) above, can stand on its own as a sentence without the appearance of subject or object nominals.

(32) *newa-panta-ne-na-ni*
    1.see.1p.0s
    ‘we see it’ (Proto-Algonquian)

When overt nominals do appear, their word order is flexible and is determined primarily by discourse factors such as topic and focus, as described by Tomlin and Rhodes (1979) for Ojibwe, Dahlstrom (1995) for Meskwaki, and Junker (2004) for East Cree.

### 1.4 Theoretical and analytical assumptions

This section sets out the theoretical framework and notational conventions that will be employed in this thesis (§1.4.1). It also discusses certain assumptions about the analysis of Algonquian morphosyntax that I will make from the outset (§1.4.2). As in the descriptive section above, further details will be elaborated when relevant as the thesis progresses.

#### 1.4.1 Theoretical assumptions

**Theoretical framework.** This thesis is situated within the Minimalist approach to generative syntax (Chomsky 1995). In particular, I assume the **PROBE-GOAL** model of agreement (Chomsky 2000, 2001) in which the unvalued and uninterpretable features of a probe (e.g. T⁰) are valued by searching the probe’s c-command domain for a goal with matching valued features and establishing an agree relation with the closest such goal. The presence of an [EPP] feature on the probe additionally triggers movement of the goal to the probe’s specifier. In addition to this basic model, I follow Preminger (2009) in assuming that the failure of agreement can lead to the insertion of default agreement morphology rather than causing outright ungrammaticality; and I follow Baker (2008, 2013) in reinterpreting Chomsky’s Activity Condition (AC) as a parameter rather than a principle (see §4.3, §6.4.3.2, §6.5, §7.2.1).
**Features.** Since the agreement operation is modelled as a relationship between features, it is important to have a model of the features themselves. I will follow Bejar (2003) and Bejar and Rezac (2009) (among others) in assuming that person features can have internal structure, such that a 3rd-person nominal is specified simply as [Person] while 1st/2nd-person nominals are more richly specified as [Person, Participant], with [Participant] being a dependent sub-feature of [Person]. Similarly, I will assume that an indefinite DP is specified simply with the categorial feature [D] while a definite DP is specified as [D, Definite], with [Definite] being a dependent sub-feature of [D] (Cowper and Hall 2002). Such internal structure can be present on probes as well as goals: a person probe, for example, could be either a simple [uPerson] probe or a more complex [uPerson, uParticipant] probe. (The notation \( u \) indicates an uninterpretable instance of a feature.)

**Notation.** I will usually represent syntactic movement by connecting the original and derived positions of the moved item with an arrow and drawing a strikethrough through the item in its original position, as shown in (33a). In cases where this notation would be cumbersome, I will indicate the original position with a trace (\( t \)). I will represent agreement by drawing a dotted, round-headed arrow from the probe to the goal, as shown in (33b).

\[
(33) \quad \text{(a. Notation for movement) \hspace{1cm} (b. Notation for agreement)}
\]

\[
\text{DP} \quad \text{T} \quad \text{DP} \quad \ldots \quad \text{T} \\
\quad [u\text{Person}] \quad [\text{Person}] \\
\]

When syntactic heads are referred to in running text, I will use the X\( ^0 \) notation (e.g. T\( ^0 \), Voice\( ^0 \)) to avoid any possible confusion with other words or abbreviations. In tree diagrams I will represent heads simply as X, since there is no potential for confusion.

### 1.4.2 Analytical assumptions

Two aspects of the analysis of Algonquian morphosyntax are orthogonal to the core goals of this thesis but must nevertheless be addressed before an analysis of agreement can be developed: (1) the morphosyntactic conditioning of the independent-conjunct contrast and (2) the status of Algonquian with respect to the Pronominal Argument Hypothesis.

**Conditioning of the independent-conjunct contrast.** As discussed above (§1.2.2), the contrast between the independent and conjunct orders is linked to clause type: the independent order canonically occurs in main clauses while the conjunct order canonically occurs...
in dependent clauses, although the details are complex and vary from language to language. Analytical approaches to the independent-conjunct contrast also vary greatly. Due to the connection with clause type, most analyses assume that $C_0$ plays some conditioning role, but there is no agreement on the nature of this role. Some consider the conditioning to be structural: for example, Brittain (2001) proposes that the verb moves to $C_0$ in the conjunct but not the independent (an analysis echoed by Branigan 2012) while Richards (2004) proposes that the verb moves to $C_0$ in the independent but not the conjunct. Others consider the conditioning to be featural: Lochbihler (2012:89) assumes that $v_0$ is marked as either $v_{\text{ind}}$ or $v_{\text{conj}}$, with the selection of one version or the other being dependent upon $C_0$.

Since the primary concern of this thesis is the agreement system and not the precise nature of the independent-conjunct contrast, I will remain agnostic as to which of these approaches is most appropriate. The presence of modality suffixes on the verb in both the independent and conjunct orders indicates that the Proto-Algonquian verb raises at least as high as $\text{Mod}_0$, as illustrated in (34), but I take no position on whether the verb subsequently raises to $C_0$, and if so, whether it does so in the independent, the conjunct, or both.

(34) Head-movement in the PA independent and conjunct orders (see §4.1)

In the absence of committing to a particular analysis of the independent-conjunct contrast, I will simply treat the independent and conjunct orders as separate systems that can each have their own set of spell-out rules—almost as though I were analyzing two separate languages. These spell-out rules can be linked to any of the above analyses by adding the appropriate conditioning statements. To follow Brittain (2001), we would condition the conjunct spell-out rules to apply in the environment of $[C]$ while the independent spell-out rules apply elsewhere. To follow Richards (2004), we would do the opposite. To follow Lochbihler (2012), we would condition the independent and conjunct rules to apply in the environments of $v_{\text{ind}}$ and $v_{\text{conj}}$ respectively. The analysis of agreement developed in this thesis can thus be adapted to fit into a variety of approaches to the independent-conjunct contrast, as long as the approach includes some formal distinction that represents the contrast.
Status of the Pronominal Argument Hypothesis. Since the primary concern of this thesis is the agreement morphology that indexes the arguments of a verb, it is important to be explicit about the syntactic status of these arguments. Due to their rich agreement inflection and the optionality of overt nominals, Algonquian languages appear to be good candidates for an analysis along the lines of Jelinek’s (1984) Pronominal Argument Hypothesis (PAH), in which it is the agreement inflection itself that constitutes the verb’s arguments. The PAH is often assumed in the analysis of Algonquian languages (e.g. Russell and Reinholtz 1995 on Swampy Cree; Junker 2004 on East Cree), and at first glance this assumption seems perfectly reasonable. However, in a detailed examination of the Eastern Algonquian language Maliseet-Passamaquoddy, LeSourd (2006) has shown that there are in fact significant problems for the PAH on a range of criteria, including the distribution of agreement over several affixes, ordering restrictions on the components of discontinuous constituents, and the existence of arguments that are not indexed on the verb but nevertheless have exactly the same morphosyntactic patterning as pronominally indexed arguments. Based on these and other problems, LeSourd (2006:512) concludes that Maliseet-Passamaquoddy “is not appropriately analyzed as a pronominal argument language.” The problems raised by LeSourd appear to be widely applicable across the Algonquian family, so it is likely that this conclusion holds for other Algonquian languages as well.

In view of LeSourd’s demonstration, I will not assume the PAH in my analysis of Proto-Algonquian inflection. Instead, I follow Lochbihler’s (2012) analysis of Ojibwe in assuming that overt nominals, when present, are the arguments themselves, and that when no overt nominals are present, the arguments are null pronouns (pro). In either case, the arguments are generated in standard argument positions, which I will assume to be Spec-cP for themes and Spec-VoiceP for agents. The agreement inflection that appears on the verb indexes these arguments but does not itself have argument status. As for the flexible word order of overt nominals, which the PAH attributes to their adjunction to the clause, I instead assume that it results from movement to clause-peripheral topic and focus positions. I thus take the effects of the PAH to be derived from rich probe-goal agreement and discourse-driven movement of overt nominals rather than from pronominal arguments and adjunction of overt nominals.

1.5 Outline of thesis

The organization of this thesis is centred on the analysis of the direct-inverse system, as this system lies at the heart of Algonquian morphosyntax and provides the gateway to under-
standing the logic of the Algonquian verb. The thesis thus begins with a description of the
direct-inverse system, then works toward an analysis, and then branches out to incorporate
the full set of agreement inflection, which includes not only the theme signs, but also the
person prefix, the formative suffix, the inner suffix, and the outer suffix. The analysis will
be driven by a comparison of the patterning of the direct-inverse system in the independent
and conjunct orders, with supplementary evidence coming from the diachronic origins of the
independent order in noun inflection. Points of theoretical relevance will be observed along
the way and discussed in more detail in the final chapter.

Chapter 2: A description of theme signs and inverse marking. This chapter works out
a detailed description of the patterning of the direct-inverse system in Proto-Algonquian,
which will serve as a foundation for the analysis developed in subsequent chapters. I will
argue that some of the existing descriptions of the direct-inverse system are empirically shaky
and do not provide a solid basis for an analysis. In particular, the four Algonquian TA theme
signs are typically described either as two pairs of direct-inverse markers, as in (35a), or as
two object markers plus a pair of direct-inverse markers, as in (35b), but I will argue that
they are in fact best regarded as three object markers plus one inverse marker, as in (35c). I
will also argue that the inverse marker occupies a different structural position from the three
object-marking theme signs.

(35) Various classifications of the TA theme signs of Proto-Algonquian

<table>
<thead>
<tr>
<th>(a) DIRECT</th>
<th>-i, -a·</th>
<th>(b) OBJ</th>
<th>-i</th>
<th>(c) OBJ</th>
<th>-i</th>
</tr>
</thead>
<tbody>
<tr>
<td>INVERSE</td>
<td>-eθ, ekw</td>
<td>2OBJ</td>
<td>-eθ</td>
<td>2OBJ</td>
<td>-eθ</td>
</tr>
<tr>
<td>DIRECT</td>
<td>-a·</td>
<td>3OBJ</td>
<td>-a·</td>
<td></td>
<td></td>
</tr>
<tr>
<td>INVERSE</td>
<td>ekw</td>
<td>INVERSE</td>
<td>ekw</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Under the view in (35c), which sets the stage for the analysis proposed in this thesis, the
theme signs are, in most cases, nothing more than object person agreement, except in the
special circumstances that give rise to the structurally distinct inverse marker.

Chapter 3: Existing theoretical approaches to theme signs. This chapter surveys the
existing theoretical work on the Algonquian direct-inverse system. The literature contains
a multitude of approaches to understanding the true nature of the system, including hierar-
chical alignment marking, passive marking, viewpoint aspect marking, and various forms of
agreement. Some of these approaches, I will argue, cannot account for the full descriptive
facts, particularly the different patterning of the inverse in the independent and conjunct or-
ders, which mitigates against any analysis that builds the direct-inverse distinction too rigidly
into the grammar. I will conclude that the most successful analyses are those developed by Bruening (2001, 2005) and Bejar and Rezac (2009). In fact, I will argue that while neither analysis captures the full picture, their strengths are complementary: Bruening identifies the correct syntactic structure for the direct-inverse contrast but cannot give a principled motivation for it while Bejar and Rezac identify a principled motivation for the direct-inverse contrast but cannot straightforwardly derive the correct syntactic structure. The way forward, I suggest, is to combine the strengths of both approaches in a single analysis.

Chapter 4: An agreement analysis of theme signs. This chapter presents the core proposal of the thesis: an analysis of the direct-inverse system that relies solely on probe-goal agreement for person features. The analysis draws upon the work of Bruening (2001, 2005) and Bejar and Rezac (2009) but is not merely a combination of their proposals; I develop the analysis by beginning with the Root and working upwards into the clause one projection at a time, taking care to ensure that that the analysis accounts for both the independent and conjunct patterns and covers not just the core TA verbs but also the remaining verb classes. I will propose that the Algonquian direct-inverse system reflects the presence of two adjacent person-agreement probes in the clause: a simple person probe on Voice₀, at the upper edge of the thematic domain, and an articulated person probe on Infl₀, at the lower edge of the inflectional domain, with the interaction of these two probes giving rise to the direct-inverse pattern. In the process of developing this analysis, two microparameters of agreement will be observed: (1) the degree to which the uninterpretable features of a probe are articulated, and (2) the presence or absence of an [EPP] feature on a probe.

Chapter 5: Theme signs in the unspecified actor form. This chapter extends the analysis of theme signs to a new set of data: the UNSPECIFIED ACTOR form, which is effectively the Algonquian equivalent of a passive construction. The patterning of theme signs in the independent unspecified actor form presents an infamous puzzle: first and second-person forms (e.g. ‘I was seen, you were seen’) appear to be inverse while third-person forms (e.g. ‘s/he was seen’) appear to be direct. The solution, I propose, lies in the representation of the arguments themselves: in Proto-Algonquian, first and second persons are PersP while third persons are DP. This representational microparameter (PersP vs. DP) not only enables a straightforward account of the unspecified actor form, but also sheds additional light on the independent-conjunct contrast: I will propose that the difference in the patterning of inverse marking in the two orders follows from the fact that in the conjunct, Infl₀ carries both a D-

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10I label the higher head as Infl₀ because it has no apparent semantic content; its only function is marking person agreement. It cannot be analyzed as T₀ because a distinct T₀ head also exists.
probe and a Person-probe, while in the independent, the two probes are split across Infl$^0$ and the next-higher head T$^0$, as shown in (36).

(36) Distribution of probes in the conjunct and independent

This conclusion identifies the distribution of probes through the clausal spine as a further microparameter of agreement, since the bundling of a D-probe and Person-probe on a single head produces a different variation of the direct-inverse pattern than the splitting of these probes across adjacent heads.

Chapter 6: Analysis of other agreement morphology. This chapter extends the analysis from theme signs to the remainder of the agreement inflection: the person prefix, the formative suffix (which I will argue is T$^0$), the inner suffix, and the outer suffix. The main proposal is that this large collection of agreement morphemes can in fact be divided into two separate agreement systems. The Infl/Person system comprises the person probe on Infl$^0$ plus the prefix and inner suffix, which always agree with the goal(s) of Infl$^0$, while the T/D system comprises the D-probe on T$^0$ plus the outer suffix, which always agrees with the goal of T$^0$. I will propose that in both systems, the probe (Infl$^0$ or T$^0$) triggers true probe-goal agreement in the syntax while the dependent morphemes (the prefix, inner suffix, and outer suffix) are generated postsyntactically with values that are predictable from the value of the associated probe. This analysis reduces the profusion of agreement morphemes to a smaller set of systems, each of which is determined by a single probe.

I then consider an interaction of the two agreement systems. In certain intransitive forms, the Infl/Person and T/D systems compete to agree with a single argument, and the outcome of this competition varies: the T/D system wins in the present tense while the Infl/Person system wins in the past. I will propose that this intriguing pattern reveals one final microparameter of agreement: variation in the ability of a probe to override the Activity Condition (AC). In particular, I propose that present-tense T$^0$ can override the AC and “steal” the goal of Infl$^0$.
while past-tense $T^0$ cannot. This difference explains why the argument in question is indexed by T/D agreement in the present but by Infl/Person agreement in the past.

**Chapter 7: Connections.** The final chapter considers the results of the thesis from a broader perspective. After summarizing the analysis, the chapter reviews the microparameters of agreement that were illustrated by the Algonquian data and considers the more general implications of the proposed analysis for theoretical issues including split ergativity, the index-concord distinction, and the clitic-agreement distinction, thus connecting the Algonquian data to these topics. The chapter, and thesis, concludes by considering the prospects for following the Proto-Algonquian analysis forward into the daughter languages.
This chapter provides a description and pre-theoretical analysis of the Algonquian direct-inverse system and the “theme sign” morphemes at its core. The basic patterning of the direct-inverse system is introduced in Section 2.1. Subsequent sections consider the properties of theme signs in more depth, bringing in data from a wider range of verb forms. Since the nature of the direct-inverse system is contested in the literature, several possible understandings of theme signs are evaluated: as subject or object agreement (§2.2), as passive marking (§2.3), as markers of A-movement (§2.4), as direction marking (§2.5), and as a heterogeneous set of markers (§2.6). Each perspective will help to deepen our understanding of the nature of the direct-inverse system. The discussion will also flesh out the description of theme signs with a broader range of facts that are sometimes lacking in standard accounts, including additional paradigms and diachronic data. The results of this discussion will be compiled into a set of desiderata that any analysis of theme signs should satisfy (§2.7).

2.1 The basic patterning of the direct-inverse system

In functional terms, the direct-inverse system is a mechanism for aligning the arguments of a transitive verb with the grammatical functions of subject and object (Fabri 1996; Wunderlich 1996; Zúñiga 2006), the same role played by morphological case in a language like Latin or SVO word order in a language like English. In a head-marking language such as Algonquian, however, these dependent-marking strategies are not applicable, as the primary realization of both subjects and objects takes place within the verb itself. The direct-inverse system has two basic components, which I describe in turn: a mechanism for associating arguments with verbal agreement slots (§2.1.1) and a mechanism for associating arguments with grammatical functions (§2.1.2). I then suggest a modification of the standard description that will be analytically useful (§2.1.3).
2.1.1 Associating arguments with agreement slots

On an independent-order Transitive Animate (TA) verb, two agreement slots index the verb’s arguments: (1) the prefix and inner suffix together, and (2) the outer suffix. (Goddard (1979b: 104, 152) refers to these slots as the “central participant-marker” and “peripheral ending” respectively.) We might expect one of these slots to be dedicated to subject agreement and the other to object agreement, but this is not the case: instead, both agreement slots are completely devoid of any connection to grammatical function. In the incomplete verb form in (1a), for example, the prefix and inner suffix indicate that one argument is 1p and the outer suffix indicates that the other argument is 3p, but it remains unspecified which argument is the subject and which is the object. Similarly, in (1b), the arguments are identified as 3p and 4p (i.e. obviative plural), but their grammatical functions are not indicated.

(1) Proto-Algonquian TA verb, agreement inflection only (theme signs omitted)

<table>
<thead>
<tr>
<th>PFX</th>
<th>STEM</th>
<th>T.S.</th>
<th>INNER</th>
<th>OUTER</th>
</tr>
</thead>
<tbody>
<tr>
<td>a.</td>
<td>ne-</td>
<td>wa-pam-</td>
<td>…</td>
<td>-ena-n</td>
</tr>
<tr>
<td>1-</td>
<td>see</td>
<td>…</td>
<td>-1p</td>
<td>-3p</td>
</tr>
<tr>
<td>‘seeing, involving us (1p) and them (3p)’</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>b.</td>
<td>we-</td>
<td>wa-pam-</td>
<td>…</td>
<td>-wa-w</td>
</tr>
<tr>
<td>3-</td>
<td>see</td>
<td>…</td>
<td>-3p</td>
<td>-4p</td>
</tr>
<tr>
<td>‘seeing, involving them (3p) and the others (4p)’</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

If grammatical functions are irrelevant, what governs the alignment of arguments with agreement slots? In (1a), for example, why does the prefix-inner suffix combination index the 1p argument and the outer suffix index the 3p argument, and not vice versa? Since the answer cannot involve the grammatical functions of the two arguments, we might instead imagine that particular phi-features are always associated with particular slots, but this cannot be correct either: there is a 3p argument in both (1a) and (1b), but in (1a) it is indexed by the outer suffix -aki ‘3p’ while in (1b) it is indexed by the prefix-inner suffix combination we- -wa-w ‘3p’. The alignment of arguments with agreement slots is thus governed neither by grammatical functions nor by particular phi-features. The crucial factor instead turns out to be the relative status of the two arguments with respect to the Person Hierarchy in (2), which states that arguments with more local person features are ranked higher than arguments with less local person features.
Chapter 2

(2) Person Hierarchy (version 1)

1st/2nd-person argument > 3rd-person argument > 4th-person argument

The hierarchical status of the two arguments determines which agreement slots the arguments are associated with, as governed by the Agreement Target Rule in (3).

(3) Agreement Target Rule

a. The prefix and inner suffix agree with the higher-ranked argument.

b. The outer suffix agrees with the lower-ranked argument.

The Agreement Target Rule requires the prefix and inner suffix to agree with the argument that bears the higher-ranked person feature. This requirement explains why the 3rd-person argument is indexed by different slots in (1a) and (1b), as noted above: when the arguments are 1st-person and 3rd-person, as in (1a), the 3rd-person argument is lower-ranked and thus controls the outer suffix, whereas when the arguments are 3rd-person and 4th-person, as in (1b), the 3rd-person argument is higher-ranked and thus controls the prefix and inner suffix.

2.1.2 Associating arguments with grammatical functions

The Agreement Target Rule explains which arguments turn up in which agreement slots, but it does not address the bigger question of how these arguments are aligned with grammatical functions—the Algonquian equivalent of case or word order. As shown in (1) above, repeated here in (4), the agreement morphemes alone are not enough: the incomplete 1p/3p form in (4a) could mean either ‘we see them’ or ‘they see us’, while the 3p/4p form in (4b) could mean either ‘they see the others’ or ‘the others see them’.

(4) Proto-Algonquian TA verb, agreement inflection only (theme signs omitted) (= (1))

<table>
<thead>
<tr>
<th>PFX</th>
<th>STEM</th>
<th>T.S.</th>
<th>INNER</th>
<th>OUTER</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>ne-</td>
<td>wa-pam-</td>
<td>...</td>
<td>ena-n</td>
</tr>
<tr>
<td>1-</td>
<td>see</td>
<td>...</td>
<td>-1p</td>
<td>-3p</td>
</tr>
<tr>
<td></td>
<td>‘seeing, involving us (1p) and them (3p)’</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>we-</td>
<td>wa-pam-</td>
<td>...</td>
<td>wa-w</td>
</tr>
<tr>
<td>3-</td>
<td>see</td>
<td>...</td>
<td>-3p</td>
<td>-4p</td>
</tr>
<tr>
<td></td>
<td>‘seeing, involving them (3p) and the others (4p)’</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

To encode grammatical function, an additional morpheme is employed: the **theme sign**, which appears directly following the verb stem. The theme sign is selected according to
the Theme Sign Selection Rule in (5). This rule, like the Agreement Target Rule above, is sensitive to the relative status of the two arguments on the Person Hierarchy. In essence, the theme sign indicates the “direction” of the action: whether the higher-ranked argument acts on the lower-ranked one or vice versa.

(5)  **Theme Sign Selection Rule** (version 1)

a. If the logical subject is higher-ranked than the logical object (e.g. 1—3 or 3—4), the **DIRECT THEME SIGN** -a- occurs.

b. If the logical object is higher-ranked than the logical subject (e.g. 3—1 or 4—3), the **INVERSE THEME SIGN** -ekw occurs.

Thus, in the 1p/3p form in (4a) above, the direct theme sign -a- is added to indicate that 1 acts on 3 while the inverse theme sign -ekw is added to indicate that 3 acts on 1, as shown in (6a). Similarly, in the 3p/4p form in (4b) above, the direct theme sign -a- indicates that 3 acts on 4 while the inverse theme sign -ekw indicates that 4 acts on 3, as shown in (6b). (In order for these forms to be complete, I also include the “formative” morpheme -w, which I will eventually analyze as a present-tense marker (§6.4).)

(6)  **Proto-Algonquian TA verb inflection**

a. **Arguments 1p and 3p (=4a plus theme signs)**

<table>
<thead>
<tr>
<th>PFX</th>
<th>STEM</th>
<th>T.S.</th>
<th>FTV</th>
<th>INNER</th>
<th>OUTER</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>DIR (1—3)</strong></td>
<td>ne-</td>
<td>wa-pam-</td>
<td>-a-</td>
<td>-w</td>
<td>-ena-n</td>
</tr>
<tr>
<td>1- see</td>
<td>-DIR</td>
<td>-PRES</td>
<td>-1p</td>
<td>-3p</td>
<td></td>
</tr>
</tbody>
</table>

'we see them'

<table>
<thead>
<tr>
<th>PFX</th>
<th>STEM</th>
<th>T.S.</th>
<th>FTV</th>
<th>INNER</th>
<th>OUTER</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>INV (3—1)</strong></td>
<td>ne-</td>
<td>wa-pam-</td>
<td>-ekw</td>
<td>-w</td>
<td>-ena-n</td>
</tr>
<tr>
<td>1- see</td>
<td>-INV</td>
<td>-PRES</td>
<td>-1p</td>
<td>-3p</td>
<td></td>
</tr>
</tbody>
</table>

'they see us'

b. **Arguments 3p and 4p (=4b plus theme signs)**

<table>
<thead>
<tr>
<th>PFX</th>
<th>STEM</th>
<th>T.S.</th>
<th>FTV</th>
<th>INNER</th>
<th>OUTER</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>DIR (3—4)</strong></td>
<td>we-</td>
<td>wa-pam-</td>
<td>-a-</td>
<td>-w</td>
<td>-wa-w</td>
</tr>
<tr>
<td>3- see</td>
<td>-DIR</td>
<td>-PRES</td>
<td>-3p</td>
<td>-4p</td>
<td></td>
</tr>
</tbody>
</table>

'they see the others'

<table>
<thead>
<tr>
<th>PFX</th>
<th>STEM</th>
<th>T.S.</th>
<th>FTV</th>
<th>INNER</th>
<th>OUTER</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>INV (4—3)</strong></td>
<td>we-</td>
<td>wa-pam-</td>
<td>-ekw</td>
<td>-w</td>
<td>-wa-w</td>
</tr>
<tr>
<td>3- see</td>
<td>-INV</td>
<td>-PRES</td>
<td>-3p</td>
<td>-4p</td>
<td></td>
</tr>
</tbody>
</table>

'the others see them'
The forms in (6) constitute the prototypical display of the Algonquian direct-inverse system: the prefix and inner suffix index the higher-ranked argument and the outer suffix indexes the lower-ranked argument, as governed by the Agreement Target Rule, while the theme sign indicates whether the higher-ranked argument acts on the lower-ranked argument (direct) or vice versa (inverse), as governed by the Theme Sign Selection Rule. In functional terms, these two rules are the Algonquian equivalent of Latin case or English word order.

2.1.3 A modification of the standard description

The preceding description of the direct-inverse system matches that which is standardly presented in grammars of Algonquian languages, although I have attempted to formulate it more explicitly than usual. In this section I suggest a slight modification to the standard description. The modification has no empirical consequences, for it is simply a notational variant of the standard description. However, the alternative perspective that it provides will prove useful in the development of a theoretical analysis later in this chapter.

The modification involves the two rules that govern the direct-inverse system:

(7) Agreement Target Rule (= (3))

The prefix and inner suffix agree with the higher-ranked argument.

(8) Theme Sign Selection Rule (version 1, = (5))

a. The direct theme sign \(-a\) appears when the higher-ranked argument is the subject.
   b. The inverse theme sign \(-ekw\) appears when the higher-ranked argument is the object.

Note that under this formulation, there is no dependency between the two rules: both rules make reference to the person hierarchy, but neither rule makes reference to the other. However, an alternative formulation of the Theme Sign Selection Rule is possible. Since the prefix and inner suffix always agree with the higher-ranked argument, the phrase the higher-ranked argument is equivalent to the phrase the argument that the prefix and inner suffix agree with. The former phrase can thus be replaced by the latter to give the alternative formulation of the Theme Sign Selection Rule in (9).

(9) Theme Sign Selection Rule (version 2)

a. The direct theme sign \(-a\) appears when the argument that the prefix and inner suffix agree with is the subject.
   b. The inverse theme sign \(-ekw\) appears when the argument that the prefix and inner suffix agree with is the object.
Under this new formulation, the Theme Sign Selection Rule no longer makes reference to the person hierarchy. Instead, it is entirely dependent upon the outcome of the Agreement Target Rule: if the Agreement Target Rule associates the prefix and inner suffix with the subject, the theme sign is direct (subrule (9a)), while if the prefix and inner suffix agree with the object, the theme sign is inverse (subrule (9b)).

Although the two formulations of the Theme Sign Selection Rule are empirically equivalent, the difference between them is theoretically significant. To see the difference, compare the two formulations in (10). (For brevity, only the inverse subrule is repeated here.)

(10) Theme Sign Selection Rule (version 1)
The inverse theme sign appears when the higher-ranked person is the object.

Theme Sign Selection Rule (version 2)
The inverse theme sign appears when the prefix and inner suffix agree with the object.

The crucial theoretical difference involves the factor that conditions the theme sign. In the original formulation, theme sign selection depends on a person hierarchy, an extrasyntactic object whose status is unclear and controversial (see e.g. Bejar 2003; Wiltschko and Burton 2004; Quinn 2006). In the revised formulation, theme sign selection instead depends on the agreement target selected by the prefix and inner suffix, a purely morphosyntactic consideration that lies squarely within the scope of theories of agreement. The revised, hierarchy-free version is thus more compatible with the goals of this thesis. (It remains the case that the Agreement Target Rule in (7) must continue to refer to a person hierarchy, but at least now our account only requires the hierarchy once rather than twice.)

2.2 Theme signs as subject or object agreement

While the function of the theme sign, as described above, is easy to understand, its typological status is less clear, and several possible perspectives must be evaluated. The first obvious possibility for the analysis of theme signs is that the theme sign is a subject or object agreement marker. However, such an analysis is a non-starter. If we revisit the 3rd-person subject forms from (6), repeated in (11), we see that a 3rd-person subject co-occurs with the inverse theme sign -ekw in (11a) but with the direct theme sign -a- in (11b). The theme sign thus cannot be a subject agreement marker.
(11) Forms from (6) with 3rd-person subjects
   a. newa-pam[ekw] pna-naki
      'they see us' ([INV: 3—1])
   b. wewa-pam[a-wa-wahi
      'they see the others' ([DIR] 3—4)

Similarly, if we revisit the 3rd-person object forms from (6), repeated in (12), we see that a 3rd-person object co-occurs with the direct theme sign -a- in (12a) but with the inverse theme sign -ekw in (12b). The theme sign thus cannot be an object agreement marker.

(12) Forms from (6) with 3rd-person objects
   a. newa-pam[a-wena-naki
      'we see them' ([DIR] 1—3)
   b. wewa-pam[ekw] wa-wahi
      'the others see them' ([INV: 4—3]

The reason why the theme sign cannot be analyzed as agreement with a particular grammatical function is clear: as shown in the preceding section, the theme sign is sensitive to the relative status of both arguments. Knowing that the object is 3rd-person, for example, is not enough to predict the form of the theme sign: we must also know the person of the subject, for if the subject outranks the object (as in a 1—3 form), the direct theme sign appears, while if the subject is outranked by the object (as in a 4—3 form), the inverse theme sign appears. Uniform subject or object agreement cannot possibly capture such a dependency.

Although the agreement hypothesis seems obviously wrong, we will see below that it is not actually as wrong as it first appears. In fact, for many—but not all—occurrences of theme signs, an analysis as object agreement will turn out to be correct. In order to reach this conclusion, however, we must first examine some other possible approaches that may appear, at first glance, to be more reasonable.

2.3 Theme signs as active-passive marking

There is an intuitive appeal to understanding direct-inverse marking as active-passive marking, as the inverse effectively switches the direction of transitivity, as illustrated in (13). Could it be that the inverse 3—1 form is in fact a passive counterpart of the direct 1—3 form, as suggested by the English forms in the second column?
Although such an analysis has indeed been suggested (see §3.2 below), it has not been adopted by most Algonquianists. The chief difference between the inverse and the passive is their conditioning: the English passive can be optionally applied to any transitive verb, whereas the Algonquian inverse is obligatory for certain argument configurations and impossible for others. For example, if the argument configuration is 3—1, English allows both the active form *they see us* and the corresponding passive form *we are seen by them*, while Algonquian allows only the inverse form shown in (13) above. The corresponding direct form is not an option, as it indexes a different argument configuration (i.e. 1—3). The Algonquian inverse is thus an obligatory component of the agreement morphology, unlike the English passive, which is, to speak loosely, an optional transformation.

Further evidence that the Algonquian inverse should not be regarded as a passive comes from the fact that Algonquian also has a distinct verb form, the so-called UNSPECIFIED ACTOR form, which does display passive properties. Like an English passive, this form exists in parallel to corresponding active forms and serves the pragmatic function of suppressing the agent. The unspecified actor form is exemplified in (15), in parallel to the corresponding active forms in (14).

(13) Direct-inverse as active-passive?

<table>
<thead>
<tr>
<th>PROTO-ALGONQUIAN</th>
<th>ENGLISH</th>
</tr>
</thead>
<tbody>
<tr>
<td>1—3</td>
<td>DIR</td>
</tr>
<tr>
<td><em>newa-pam</em>[a] <em>wena-naki</em></td>
<td>'we see them'</td>
</tr>
<tr>
<td>3—1</td>
<td>INV</td>
</tr>
<tr>
<td><em>newa-pam</em>[ekw] <em>ena-naki</em></td>
<td>'they see us'</td>
</tr>
</tbody>
</table>

(a) Active forms

<table>
<thead>
<tr>
<th>a. 1—3 (direct)</th>
<th>b. 3—1 (inverse)</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>ne- wa-pam</em>[a] <em>w</em> <em>ena-n</em> <em>aki</em></td>
<td><em>ne- wa-pam</em>[ekw] <em>w</em> <em>ena-n</em> <em>aki</em></td>
</tr>
<tr>
<td>1- see -DIR -PRES -1p -3p</td>
<td>1- see -INV -PRES -1p -3p</td>
</tr>
<tr>
<td>'we see them'</td>
<td>'they see us'</td>
</tr>
</tbody>
</table>

(a) Passive (“unspeciﬁed-actor”) forms

<table>
<thead>
<tr>
<th>a. 3 object (passive of (14a))</th>
<th>b. 1 object (passive of (14b))</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>wa-pam</em>[a] <em>w</em> <em>aki</em></td>
<td><em>ne- wa-pam</em>[eko] <em>hm</em> <em>ena</em></td>
</tr>
<tr>
<td>see -DIR -PRES -3p</td>
<td>1- see -PSSV -PRES -1p</td>
</tr>
<tr>
<td>'they are seen'</td>
<td>'we are seen'</td>
</tr>
</tbody>
</table>
The existence of the passive-like forms in (15), whose structure will be examined in detail in Chapter 5, is an extra indication that the inverse should not be regarded as the Algonquian equivalent of the passive, since the forms in (15) are a much better candidate. (In fact, even these forms may not truly be passive, as I will argue in Chapter 5.)

2.4 Theme signs as markers of A-movement

Although the preceding section concludes that the inverse is not a passive, the passive approach to the inverse is not entirely lacking in insight, for it turns out that the inverse does share one key structural property with the passive. In an English passive such as John was seen, it is often proposed that John undergoes A-movement from its original object position to a higher position (e.g. Chomsky 1981; Baker 1988). This section presents an empirical argument for the A-movement of inverse objects (§2.4.1) and then discusses two problems for the A-movement approach (§2.4.2).

2.4.1 An empirical argument for A-movement of the inverse object

The evidence comes from Bruening’s (2001, 2005, 2009a) work on the Eastern Algonquian language Passamaquoddy. Bruening discovered that in Passamaquoddy, syntactic relations that are sensitive to the relative structural positions of two arguments—namely, variable binding, weak crossover, and quantifier scope—differ in direct and inverse forms. In particular, when the verb appears in its inverse form, the object behaves as though it c-commands the subject, while in a direct form, it does not. Bruening’s findings for binding and crossover are summarized in (16) and (17). (Here, dotted lines indicate binding and solid arrows indicate movement. The abbreviations in the glosses are those of Bruening 2005.)

(16) Variable binding in Passamaquoddy (Bruening 2005:13)

a. DIRECT FORM (3—4): an object quantifier cannot bind a variable in the subject

\begin{align*}
\text{Skitap musqitaham-ac-il} & \quad \text{"-koti-tqon-a-l} \quad \text{psi=te} \quad \text{wen-il.} \\
\text{man hate-3CNJ-PART.OBV 3-FUT-arrest-DIR.OBV all=EMPH someone-OBV} \end{align*}

\begin{align*}
\text{3subj} & \quad \text{4obj} \\
\text{*[A man that he, hates] will arrest [everyone,]*} \\
\end{align*}
b. **INVERSE FORM (4—3):** an object quantifier *can* bind a variable in the subject

\[ \text{Yatte } \text{wen pilsqehsis '}-\text{kis-cem-ku-}l \text{ w-ikuvoss-ol.} \]

<table>
<thead>
<tr>
<th>Subj</th>
<th>Obj</th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td>3</td>
</tr>
</tbody>
</table>

\[ \text{each } \text{girl} \text{ 3-PERF-kiss-OBV } \text{3-mother-OBV} \]

\[ \text{[Her' mother] kissed [each girl],} \]

(17) Weak crossover in Passamaquoddy (Bruening 2005:13–14)

a. **DIRECT FORM (3—4):** an object wh-phrase cannot bind a variable in the subject

\[ *\text{Wen-ihi tan wen welamsot-ok micimi=te quessey-a-htit?} \]

<table>
<thead>
<tr>
<th>Subj</th>
<th>Obj</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>4</td>
</tr>
</tbody>
</table>

\[ \text{who-OBV.P TAN who IC.believe.in-3CNJ always=EMPH IC.respect-DIR-3P.CNJ} \]

\[ *\text{Who}_i \text{ does [whoever believes in them] always respect [who]?} \]

b. **INVERSE FORM (4—3):** an object wh-phrase *can* bind a variable in the subject

\[ \text{Wen } \text{pihce wenitaham-iht '}-\text{qoss-ol?} \]

<table>
<thead>
<tr>
<th>Subj</th>
<th>Obj</th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td>3</td>
</tr>
</tbody>
</table>

\[ \text{who long.ago IC.forget.about-3CNJ.INV } \text{3-son-OBV} \]

\[ \text{[his son] forget about [who] long ago?} \]

The special ability of the inverse object to bind and take scope over the subject follows if the object undergoes A-movement to a position c-commanding the subject in the inverse but not in the direct, as schematized in (18).

(18) **Movement of the inverse object to a position from which it can bind the subject**

<table>
<thead>
<tr>
<th>Direct (3—4)</th>
<th>Derived Position</th>
<th>Subject</th>
<th>Object</th>
</tr>
</thead>
<tbody>
<tr>
<td>3 OBJ</td>
<td>3 SUBJ</td>
<td>4 OBJ</td>
<td>4 SUBJ</td>
</tr>
</tbody>
</table>

Bruening’s data thus provides a strong empirical argument that inverse objects raise above the subject, at least in Passamaquoddy. This conclusion opens up a new way to understand the selection of theme signs: they can be seen as markers of A-movement, with direct *-a* marking A-movement of the subject and inverse *-ekw* marking A-movement of the object. Under this view, which is formalized in the revised Theme Sign Selection Rule in (19), the direct-inverse distinction is simply a consequence of an A-movement asymmetry.
(19) Theme Sign Selection Rule (version 3, revised from (9))
   a. The direct theme sign \(-a\) appears when the subject undergoes A-movement.
   b. The inverse theme sign \(-ekw\) appears when the object undergoes A-movement.

Linking the direct-inverse distinction to an A-movement asymmetry is an important step forward, but we have not yet arrived at a complete analysis, as it remains to be explained why the A-movement asymmetry occurs in the first place—that is, why is it sometimes the subject that moves and other times the object? A motivation will be proposed in the following chapter, but for now the point is simply that raising of the inverse object is empirically supported, regardless of its actual cause.

2.4.2 Problems for the A-movement approach to the inverse

Despite the evidence in its favour, there are problems for the A-movement approach to the inverse. One problem involves morphosyntactic variation across the Algonquian languages; another involves the existence of theme signs other than direct \(-a\) and inverse \(-ekw\).

The morphosyntactic problem arises from the well-known Algonquian cross-clausal agreement construction (see e.g. Frantz 1978b; Dahlstrom 1991; Branigan and MacKenzie 2002; McGinnis 1999), in which an embedding verb optionally agrees with an argument in its clausal complement. This construction is illustrated by the examples in (20) from the Central Algonquian language Innu (Branigan and MacKenzie 2002:389). Both examples have the same gloss, ‘I know that Paul visited you’, but they differ in the object agreement that appears on the matrix verb ‘know’. In (20a), where cross-clausal agreement has not occurred, the matrix verb shows inanimate object agreement (lit. ‘I know it’), while in (20b), where cross-clausal agreement has occurred, the matrix verb instead shows animate 3rd-person object agreement with the subject of the embedded clause (lit. ‘I know him’).

(20) Cross-clausal agreement in Innu (Branigan and MacKenzie 2002:389)
   a. Nitshisseniten [\(CP\ Pûn kâ mûpishtâshk\)].
      1.know.1–0 [\(CP\ Paul\ PAST\ visit.3–2\)]
      ‘I know that Paul visited you.’ (matrix verb lit. ‘I know it’)
   b. Nitshissenimâu [\(CP\ Pûn kâ mûpishtâshk\)].
      1.know.1–3s [\(CP\ Paul\ PAST\ visit.3–2\)]
      ‘I know that Paul visited you.’ (matrix verb lit. ‘I know him’)

\(\)
Chapter 2

The patterning of cross-clausal agreement varies across the Algonquian family. In some languages, such as Innu, cross-clausal agreement targets embedded topics and can thus be regarded as an A-bar phenomenon (Branigan and MacKenzie 2002). In other languages, however, cross-clausal agreement is sensitive to A-positions. There is a variation within this group of languages that is particularly significant for the current discussion: in some languages, cross-clausal agreement consistently targets the subject while in others it targets the higher-ranked argument—the subject in a direct form (e.g. 3—4) and the object in an inverse form (e.g. 4—3). The two cross-clausal agreement patterns are schematized in (21). The subject pattern is reported for Plains Cree (Dahlstrom 1991) and some speakers of the Ottawa dialect of Ojibwe (Rhodes 1994:443) while the higher-ranked argument pattern is reported for most Ottawa speakers (Rhodes 1994:438–40).

(21) Variation in cross-clausal agreement

<table>
<thead>
<tr>
<th>TARGET OF CROSS-CLAUSAL AGREEMENT</th>
</tr>
</thead>
<tbody>
<tr>
<td>SUBJECT (Plains Cree, some Ottawa)</td>
</tr>
<tr>
<td>DIRECT</td>
</tr>
<tr>
<td>INVERSE</td>
</tr>
</tbody>
</table>

The higher-ranked argument pattern found among most Ottawa speakers is consistent with an analysis in which inverse objects undergo A-movement, since this A-movement will make the inverse object the closest target for matrix V agreement, as sketched in (22).

(22) A-movement derives hierarchy-sensitive cross-clausal agreement

The subject pattern found in Plains Cree, however, follows more naturally from an analysis in which inverse objects do not undergo A-movement, since this will leave the subject as the closest target for matrix V agreement in all forms, as sketched in (23).
Lack of A-movement derives subject-sensitive cross-clausal agreement

\[
\begin{array}{|c|c|c|c|}
\hline
\text{Matrix V} & \text{Derived Position} & \text{Subj} & \text{Obj} \\
\hline
V & [CP \ O] & 3_{\text{subj}} & 4_{\text{obj}} & (\text{Direct 3—4}) \\
V & [CP \ O] & 4_{\text{subj}} & 3_{\text{obj}} & (\text{Inverse 4—3}) \\
\hline
\end{array}
\]

The simplest interpretation of the variation in cross-clausal agreement, then, is that it reflects cross-Algonquian variation in A-movement of inverse objects. On its own, this conclusion is not problematic, as the triggering of A-movement could easily be parameterized. The conclusion is problematic, however, for an account that uses A-movement to explain the direct-inverse system, since such an account cannot explain why Plains Cree displays a direct-inverse system even though it lacks A-movement of inverse objects. This paradox will eventually be resolved by the analysis developed in this thesis, but for now we must conclude that the A-movement approach to the inverse faces a challenge.

A second challenge for the A-movement approach to the inverse involves the Theme Sign Selection Rule. We saw above that the A-movement approach allows the Theme Sign Selection Rule to be given the elegant restatement in (24).

(24) Theme Sign Selection Rule (version 3, = (19))

a. The direct theme sign -a∙ appears when the subject undergoes A-movement.

b. The inverse theme sign -ekw appears when the object undergoes A-movement.

As a reminder, the use of these theme signs in Proto-Algonquian is exemplified in (25).

(25) Direct and inverse theme signs in Proto-Algonquian independent-order TA forms

<table>
<thead>
<tr>
<th>DIRECT -a∙</th>
<th>INVERSE -ekw</th>
</tr>
</thead>
<tbody>
<tr>
<td>1—3 (\text{ne-wa-pam-}a\cdot\text{w-ena-n-aki}) ‘we see them’</td>
<td>3—1 (\text{ne-wa-pam-ekw-w-ena-n-aki}) 1-see-INV-PRES-1p-3p ‘they see us’</td>
</tr>
<tr>
<td>2—3 (\text{ke-wa-pam-}a\cdot\text{w-wa-w-aki}) ‘you (pl.) see them’</td>
<td>3—2 (\text{ke-wa-pam-ekw-w-wa-w-aki}) 2-see-INV-PRES-2p-3p ‘they see you (pl.)’</td>
</tr>
<tr>
<td>3—4 (\text{we-wa-pam-}a\cdot\text{w-wa-w-ahi}) ‘they see the others’</td>
<td>4—3 (\text{we-wa-pam-ekw-w-wa-w-ahi}) 3-see-INV-PRES-3p-4p ‘the others see them’</td>
</tr>
</tbody>
</table>
However, the Theme Sign Selection Rule cannot, in fact, be as simple as (24), for the data in (25) is not the full story. Notice that in the forms in (25), the two arguments are always either a participant and a non-participant (e.g. 1—3) or two non-participants (e.g. 3—4). We have not yet considered forms in which the arguments are both participants (i.e. 2—1 or 1—2). It turns out that such “you-and-me” forms contain an entirely different pair of theme signs, as shown in (26).¹ (For now, I gloss the new theme signs simply as ‘t.s.’)

(26) You-and-me theme signs in Proto-Algonquian independent-order TA forms

<table>
<thead>
<tr>
<th>THEME SIGN -i (2—1)</th>
<th>THEME SIGN -eθ (1—2)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2s—1s</td>
<td>1s—2s</td>
</tr>
<tr>
<td>ke-wa-pam-[i]</td>
<td>ke-wa-pam-[eθ]e</td>
</tr>
<tr>
<td>2-see-T.S.</td>
<td>2-see-T.S.-PRES</td>
</tr>
<tr>
<td>‘you (sg.) see me’</td>
<td>‘I see you (sg.)’</td>
</tr>
<tr>
<td>2p—1s</td>
<td>1s—2p</td>
</tr>
<tr>
<td>ke-wa-pam-[1]hm-wa-</td>
<td>ke-wa-pam-[eθ]ehm-wa-</td>
</tr>
<tr>
<td>2-see-T.S.-PRES-2p</td>
<td>2-see-T.S.-PRES-2p</td>
</tr>
<tr>
<td>‘you (pl.) see me’</td>
<td>‘I see you (pl.)’</td>
</tr>
<tr>
<td>2s/p—1p</td>
<td>1p—2s/p</td>
</tr>
<tr>
<td>ke-wa-pam-[1]hm-ena-</td>
<td>ke-wa-pam-[eθ]ehm-ena-</td>
</tr>
<tr>
<td>2-see-T.S.-PRES-1p</td>
<td>2-see-T.S.-PRES-1p</td>
</tr>
<tr>
<td>‘you see us (excl.)’</td>
<td>‘we (excl.) see you’</td>
</tr>
</tbody>
</table>

The existence of this additional pair of theme signs does not necessarily invalidate the A-movement approach, but it certainly complicates it, since the Theme Sign Selection Rule can no longer be stated as simply as in (24); the theme signs -i and eθ must somehow be added. The you-and-me forms also suggest a quite different approach to the nature of theme signs, which will be considered in the following section. Although this alternative approach will ultimately be rejected, the discussion will help us to converge on a final understanding of theme signs that has much in common with the A-movement approach but is more nuanced.

### 2.5 Theme signs as direction markers

This section discusses a view of Algonquian theme signs that I refer to as “direction marking.” After describing this commonly-held view (§2.5.1), I will argue that it is both theoretically undesirable and empirically flawed, and cannot be upheld as a serious analysis (§2.5.2).

¹The 2—1 and 1—2 forms are also commonly referred to as local forms (e.g. Hockett 1966), but I find Goddard’s (1967:67) term “you-and-me forms” preferable for its admirable transparency.


2.5.1 Description of the the direction-marking approach

The direction-marking approach is perhaps the most commonly-held view of theme signs. To understand the rationale for this approach, consider the theme sign patterns from (25) and (26) above, which are summarized in (27).

(27) Patterning of Proto-Algonquian independent-order TA theme signs

<table>
<thead>
<tr>
<th>-a· (DIR)</th>
<th>-ekw (INV)</th>
<th>-i</th>
<th>-eθ</th>
</tr>
</thead>
<tbody>
<tr>
<td>1—3</td>
<td>3—1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2—3</td>
<td>3—2</td>
<td>2—1</td>
<td>1—2</td>
</tr>
<tr>
<td>3—4</td>
<td>4—3</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The A-movement approach, in its simplest form, has trouble explaining the existence of the theme signs -i and -eθ, which occur only in you-and-me forms. But if we compare the you-and-me forms in (26) above with the clear direct-inverse forms in (25), a pattern emerges. In the 2—1 you-and-me forms, in which the theme sign is -i, the 2nd-person subject controls the prefix, just as it does in a direct form (e.g. 2—3):

(28) a. 2—1: prefix controlled by 2SUBJ  
ke-wa-pam-[i]hm-en-a·  
2-see-T.S.-PRES-1p  
‘you see us (excl.)’

b. 2—3 (DIRECT): prefix controlled by 2SUBJ  
ke-wa-pam-[a]w-wa-w-aki  
2-see-DIR-PRES-2p-3p  
‘you (pl.) see them’

Conversely, in the 1—2 you-and-me forms, in which the theme sign is -eθ, the 2nd-person object controls the prefix, just as it does in an inverse form (e.g. 3—2):

(29) a. 1—2: prefix controlled by 2OBJ  
ke-wa-pam-[eθ]ehm-en-a·  
2-see-T.S.-PRES-1p  
‘we (excl.) see you’

b. 3—2 (INVERSE): prefix controlled by 2OBJ  
ke-wa-pam-[ekw]w-wa-w-aki  
2-see-INV-PRES-2p-3p  
‘they see you (pl.)’

An obvious conclusion from this pattern is that the you-and-me theme signs exhibit the same direct-inverse pattern that occurs with -a· and -ekw. The 2—1 forms pattern with direct forms in that the prefix is controlled by the subject, so the 2—1 theme sign -i must be a direct theme sign. Conversely, the 1—2 forms pattern with inverse forms in that the prefix is controlled by the object, so the 1—2 theme sign -eθ must be an inverse theme sign. (I will
shortly argue that this obvious conclusion is in fact incorrect, but for now, let us follow its implications through.) The resulting classification of theme signs is shown in (30).

(30) Pattern of independent-order TA theme signs (revised)

<table>
<thead>
<tr>
<th></th>
<th>YOU-AND-ME FORMS</th>
<th>ELSEWHERE</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>DIRECT</strong></td>
<td>-i (2–1)</td>
<td>-a· (1–3, 2–3, 3–4)</td>
</tr>
<tr>
<td><strong>INVERSE</strong></td>
<td>-eθ (1–2)</td>
<td>-ekw (3–1, 3–2, 4–3)</td>
</tr>
</tbody>
</table>

Under this analysis, the direct-inverse distinction applies across the entire set of theme signs, and it is simply the case that the direct and inverse theme signs have special allomorphs in the you-and-me forms. This requires us to amend the Theme Sign Selection Rule to include the new you-and-me allomorphs, as in (31).

(31) Theme Sign Selection Rule (version 4, revised from (9))

a. When the prefix agrees with the subject, the theme sign is spelled out as:
   (i) direct -i in a you-and-me form
   (ii) direct -a· elsewhere

b. When the prefix agrees with the object, the theme sign is spelled out as:
   (i) inverse -eθ in a you-and-me form
   (ii) inverse -ekw elsewhere

The Person Hierarchy must also be revised. In the original formulation in (2) above, repeated in (32a), 1st and 2nd persons were not distinguished, but our conclusion that 2—1 forms are direct and 1—2 forms are inverse indicates that 2nd should be ranked above 1st, as in (32b).

(32) Person Hierarchy

a. VERSION 1: 1st/2nd-person > 3rd-person > 4th-person

b. VERSION 2: 2nd-person > 1st-person > 3rd-person > 4th-person

This line of reasoning has led us to an entirely hierarchical model of the direct-inverse system in which each person has a distinct hierarchical rank and the theme sign functions essentially as an arrow, indicating whether the agent-patient relationship proceeds in the same direction as the hierarchy (direct) or the opposite direction (inverse), as shown in (33).
Theme signs as hierarchical direction markers

\[
\begin{array}{c}
\text{AGENT} \rightarrow \text{PATIENT} \\
\hline
\text{INV} \\
\end{array}
\]

Such an analysis entails that the direct and inverse theme signs instantiate a distinct grammatical category of direction (e.g. Wolfart 1973:24; DeLancey 1981a,b; Aissen 1999; Zúñiga 2006), which marks the alignment or misalignment of the person hierarchy \((2 > 1 > 3 > 4)\) with the argument-structure hierarchy \((\text{agent} > \text{patient})\).

### 2.5.2 Problems for the direction-marking approach

A theoretical disadvantage of the direction-marking approach is the unusual grammatical category of direction that it entails. Although various languages show aspects of a direction-marking system (DeLancey 1981b; Klaiman 1992; Zúñiga 2006), it is generally considered that Algonquian is where such a system reaches its greatest elaboration:

"[I]nverse morphology is a rather ingenious invention, in its purest form only found in the Algonquian languages." (Wunderlich 2005:2)

"The Algonquian systems are the most elaborate that I am aware of, most of them making all of the distinctions found in any other direction system; they represent a prototype in terms of which other systems are easily analyzable." (DeLancey 2001)

"No account of direction…could conceivably afford to exclude Plains Cree, the guiding light to which all gazes turn…" (Zúñiga 2006:70)

If the elaboration of direction marking to such an extent is so rare, and perhaps even unique to Algonquian, then we might well wonder whether direction in Algonquian is truly a grammatical primitive, or whether the analysis is instead little more than a formalization of the description. A direction-marking analysis would also spell the end of any attempt to unify the direct-inverse system with agreement theory, since the core of the system would hinge upon an idiosyncratic category of direction rather than more general principles of agreement.

While these theoretical considerations alone do not discredit the direction-marking approach, the approach also faces two empirical challenges, one involving the \(2 > 1\) hierarchy suggested by the you-and-me forms (§2.5.2.1) and another involving a distinct set of verb forms, the \text{CONJUNCT ORDER}, in which the patterning of the theme signs differs from the
description given above (§2.5.2.2). Taken together, this evidence indicates that the true nature of theme signs is in fact quite different from the conventional direct-inverse model.

### 2.5.2.1 A challenge for the 2-on-1 hierarchy

The preceding line of reasoning led us to recognize a direct-inverse contrast in the you-and-me forms and to elaborate the person hierarchy with the ranking 2 > 1. This understanding of the direct-inverse system is present in some descriptive work on Algonquian languages (e.g. Wolfart 1973) and in theoretical work as well (Dahlstrom 1991; Bejar and Rezac 2009; Lochbihler 2012). However, it also has prominent detractors (e.g. Bloomfield 1962; Hockett 1966, 1992; Goddard 1979b:82; Pentland 1999:235–6; McGinnis 1999). The issue has been examined in detail by Macaulay (2005, 2009) and Zúñiga (2006, 2008), both of whom conclude that the line of reasoning followed above is in fact faulty. As Zúñiga (2006:127) puts it: “The Algonquian person hierarchy 2 > 1 > 3 is … at best an oversimplification and at worst an urban legend.” To see how this is the case, we must take a closer look at the reasons for positing a direct-inverse system.

Our introduction to the direct-inverse system began with two sets of forms (§2.1): **mixed forms**, in which one argument is a participant (1st/2nd) and the other is a non-participant (3rd), and **non-local forms**, in which both arguments are non-participants (3rd/4th). As we have seen, these forms display a correlation between the theme sign and the prefix/inner suffix that clearly justifies positing a direct-inverse system: the direct theme sign -a- appears when the prefix and inner suffix agree with the subject, as in (34), while the inverse theme sign -ekw appears when the prefix and inner suffix agree with the object, as in (35).

(34) **DIRECT FORMS** (theme sign -a-): prefix and inner suffix agree with subject

<table>
<thead>
<tr>
<th>a. Mixed Direct Form (1—3)</th>
<th>b. Non-local Direct Form (3—4)</th>
</tr>
</thead>
<tbody>
<tr>
<td>ne-wa-pam[-a-]w-ena-n-aki</td>
<td>we-wa-pam[-a-]w-wa-w-ari</td>
</tr>
<tr>
<td>1-see-DIR-PRES-1p-3p</td>
<td>3-see-DIR-PRES-3p-4p</td>
</tr>
<tr>
<td>‘we see them’</td>
<td>‘they see the others’</td>
</tr>
</tbody>
</table>

(35) **INVERSE FORMS** (theme sign -ekw): prefix and inner suffix agree with object

<table>
<thead>
<tr>
<th>a. Mixed Inverse Form (3—1)</th>
<th>b. Non-local Inverse Form (4—3)</th>
</tr>
</thead>
<tbody>
<tr>
<td>ne-wa-pam[-ekw]w-ena-n-aki</td>
<td>we-wa-pam[-ekw]w-wa-w-ari</td>
</tr>
<tr>
<td>1-see-DIR-PRES-1p-3p</td>
<td>3-see-DIR-PRES-3p-4p</td>
</tr>
<tr>
<td>‘they see us’</td>
<td>‘the others see them’</td>
</tr>
</tbody>
</table>
The terms “direct” and “inverse” are thus effectively labels for the correlation between the form of the theme sign and the target of prefix/inner suffix agreement. The fact that this correlation holds in both mixed forms (where 1—3 is marked with \(-a\cdot\)) and non-local forms (where 3—4 is marked with \(-a\cdot\)) is what forces us to posit the Person Hierarchy in (36): the hierarchy captures the fact that, for the purposes of the theme sign, the relationship between 1 and 3 (or 2 and 3) is equivalent to the relationship between 3 and 4.

(36) Person Hierarchy

\[
\text{1st/2nd-person} > \text{3rd-person} > \text{4th-person}
\]

For explicitness, I have described the correlation between the theme sign and the prefix/inner suffix as the Theme Sign Selection Rule, repeated in (37).

(37) Theme Sign Selection Rule (from (9))

\[
a. \text{Direct theme sign } -a\cdot \text{ occurs when prefix and inner suffix agree with subject.} \\
b. \text{Inverse theme sign } -ekw \text{ occurs when prefix and inner suffix agree with object.}
\]

The preceding description is based on the mixed and non-local forms. However, as we have seen, the you-and-me forms contain a different pair of theme signs: \(-i\) in 2—1 and \(-e\theta\) in 1—2 forms. To determine the applicability of the “direct” and “inverse” labels to these theme signs, we can work backwards from the Theme Sign Selection Rule: if one theme sign occurs when the prefix and inner suffix agree with the subject, it must be direct; if the other occurs when the prefix and inner suffix agree with the object, it must be inverse.

At first glance, the data appears to be compatible with this strategy: if we focus only on the prefix in the forms in (38), we see that in the 2—1 form, with the theme sign \(-i\), the prefix agrees with the subject, suggesting that the form is direct, while in the 1—2 form, with the theme sign \(-e\theta\), the prefix agrees with the object, suggesting that the form is inverse. Since 2—1 seems to be direct and 1—2 seems to be inverse, we seem to have grounds for expanding the Person Hierarchy to include a 2 \(>\) 1 ranking, as concluded above and repeated in (39).

(38) Alignment of prefix agreement in you-and-me forms

\[
a. 2—1p: \text{prefix agrees w/subject (DIR?) } \\
   \text{ke-wa-pam-[i]hm-ena-} \\
   \text{2-see-T.S.-PRES-1p} \\
   \`\text{you see us’}
\]

\[
b. 1p—2: \text{prefix agrees w/object (INV?) } \\
   \text{ke-wa-pam-[e\theta]ehm-ena-} \\
   \text{2-see-T.S.-PRES-1p} \\
   \`\text{we see you’}
\]
Expanded Person Hierarchy

2nd-person > 1st-person > 3rd-person > 4th-person

Although this conclusion has often been reached, it is in fact based on flawed reasoning, as Macaulay (2009) makes clear. The flaw is that we diagnosed the $2 > 1$ ranking by looking at the prefix alone, but the Theme Sign Selection Rule is based on the alignment of both the prefix and the inner suffix. In the mixed and non-local forms, the distinction between the two affixes was not important, as they both always agreed with the same argument. The you-and-me forms, however, are the one set of forms in which the prefix and inner suffix can agree with different arguments—and as it turns out, the inner suffix in the forms in (38) actually displays exactly the opposite alignment as the prefix: in the $2—1$ form, the suffix agrees with the object, suggesting that the form is inverse, while in the $1—2$ form, the suffix agrees with the subject, suggesting that it is direct, as shown in (40).

Alignment of inner suffix agreement in you-and-me forms$^2$

- **a. $2—1p$: suffix agrees w/object** (INV)$^2$
  - ke-wa-pam-[h]hm-ena-
  - 2-see-T.S.-PRES-1p
  - 'you see us'

- **b. $1p—2$: suffix agrees w/subject** (DIR)$^2$
  - ke-wa-pam-[θ]ehm-ena-
  - 2-see-T.S.-PRES-1p
  - 'we see you'

The inner suffix in these forms thus indicates a $1 > 2$ ranking just as clearly as the prefix indicates a $2 > 1$ ranking (Macaulay 2009). The only way to choose one ranking over the other is to decide that one of the affixes is a true indicator of the hierarchy and the other is not, but such a decision would be entirely arbitrary. In comparison with the non-local and mixed-forms, then, the evidence for positing a direct-inverse contrast in the you-and-me forms is perfectly split, as illustrated in (41).

Evidence for positing a direct-inverse contrast

- **a. Non-local and mixed forms: unified alignment of prefix and inner suffix**
  - 1—3, 3—4
    - PREFIX—subject
    - SUFFIX—subject
    - THEME SIGN -a
    - (=DIRECT)
  - 4—3, 3—1
    - PREFIX—object
    - SUFFIX—object
    - THEME SIGN -ekw
    - (=INVERSE)

---

$^2$These forms contain no outer suffix, so the inner suffix is word-final. An outer suffix can be added to these forms in ditransitive constructions (§4.6.5).
b. You-and-me forms: split alignment of prefix and inner suffix

<table>
<thead>
<tr>
<th></th>
<th>a. 2—1p</th>
<th>b. 1p—2</th>
</tr>
</thead>
<tbody>
<tr>
<td>PREFIX—subject</td>
<td>=DIRECT?</td>
<td>PREFIX—object</td>
</tr>
<tr>
<td>SUFFIX—object</td>
<td>=INVERSE?</td>
<td>SUFFIX—subject</td>
</tr>
<tr>
<td>THEME SIGN -i</td>
<td>(=DIR/INV?)</td>
<td>THEME SIGN -eθ</td>
</tr>
</tbody>
</table>

We must therefore conclude, following Macaulay (2009) and Zúñiga (2006), that there is no principled way to diagnose a direct-inverse contrast in the you-and-me forms, as this contrast depends on a correlation between the theme sign and the prefix/inner suffix that does not consistently exist in the you-and-me forms.

Some Algonquianists attempt to accommodate this conclusion by positing a direct-inverse system in the mixed and non-local forms (with theme signs -a∙ and -ekw), but not in the you-and-me forms (with theme signs -i and -eθ), which are taken to be dedicated to 2—1 and 1—2 forms (e.g. Goddard 1979b:82). This entails the Theme Sign Selection Rule in (42), which I will refer to as the **PARTIAL DIRECTION-MARKING APPROACH** to theme signs.

(42) **Theme Sign Selection Rule** (version 5, revised from (31))

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>a.</td>
<td>2—1 forms have -i and 1—2 forms have -eθ.</td>
</tr>
<tr>
<td>b. Elsewhere:</td>
<td></td>
</tr>
<tr>
<td>(i)</td>
<td>Direct -a∙ occurs when prefix and inner suffix agree with subject.</td>
</tr>
<tr>
<td>(ii)</td>
<td>Inverse -ekw occurs when prefix and inner suffix agree with object.</td>
</tr>
</tbody>
</table>

At most, then, the direction-marking approach can account for only two of the theme signs, not all four. However, the following section shows that even the partial direction-marking approach fails once we extend it beyond the independent-order inflection, as the distribution of theme signs in the conjunct order differs in a way that makes it impossible to treat the you-and-me forms as a separate system.

### 2.5.2.2 A challenge from the conjunct order

Recall from Chapter 1 that Algonquian has two parallel sets (“orders”) of verb inflection: the **INDEPENDENT ORDER**, which canonically occurs in main clauses, and the **CONJUNCT ORDER**, which...
which canonically occurs in subordinate clauses. To this point, we have been considering the behaviour of the direct-inverse system in the independent order, as do most analyses. However, theme signs occur in the conjunct order as well—and, importantly, it turns out that theme signs pattern differently in the conjunct than in the independent (cf. Rhodes 1994:432; Wunderlich 2005; Quinn 2006; Trommer 2006; Zúñiga 2006; Lochbihler 2012:83ff).

To see how the patterns differ, we will compare the selection of theme signs in the Proto-Algonquian independent and conjunct for each possible combination of arguments. (For simplicity I show only the theme sign, not the entire verb form; the full conjunct forms can be consulted in the Appendix.) When both arguments are non-participants, the independent and the conjunct both display the same familiar pattern: direct -a-, inverse -ekw, as in (43).

(43) PA theme sign selection, both arguments non-participants (3 or 4)

<table>
<thead>
<tr>
<th>INDEPENDENT</th>
<th>CONJUNCT</th>
</tr>
</thead>
<tbody>
<tr>
<td>3—4</td>
<td>-a·</td>
</tr>
<tr>
<td>4—3</td>
<td>-ekw</td>
</tr>
</tbody>
</table>

The two orders pattern together in you-and-me forms as well: 2—1 forms have direct -i and 1—2 forms have inverse -eθ, as in (44).

(44) PA theme sign selection, both arguments participants (1 or 2)

<table>
<thead>
<tr>
<th>INDEPENDENT</th>
<th>CONJUNCT</th>
</tr>
</thead>
<tbody>
<tr>
<td>2—1</td>
<td>-i</td>
</tr>
<tr>
<td>1—2</td>
<td>-eθ</td>
</tr>
</tbody>
</table>

In forms that mix a participant (1 or 2) with a non-participant (3), the two orders pattern together when the participant is the subject: the direct theme sign -a- occurs, as in (45).

(45) PA theme sign selection, mixed forms, participant subject

<table>
<thead>
<tr>
<th>INDEPENDENT</th>
<th>CONJUNCT</th>
</tr>
</thead>
<tbody>
<tr>
<td>2—3</td>
<td>-a·</td>
</tr>
<tr>
<td>1—3</td>
<td>-a·</td>
</tr>
</tbody>
</table>
However, in mixed forms with a participant object, the two orders do not pattern together. While the independent has the standard inverse theme sign -ekw for both 3—2 and 3—1, the conjunct forms instead have the you-and-me theme signs -eθ and -i, as shown in (46).

(46) PA theme sign selection, mixed forms, participant object

<table>
<thead>
<tr>
<th>INDEPENDENT</th>
<th>CONJUNCT</th>
</tr>
</thead>
<tbody>
<tr>
<td>3—2</td>
<td>-ekw (inverse)</td>
</tr>
<tr>
<td>3—1</td>
<td>-ekw (inverse)</td>
</tr>
</tbody>
</table>

The difference between the independent and conjunct forms in (46) contradicts the Theme Sign Selection Rule, which predicts that inverse -ekw should occur throughout, as the higher-ranked argument is the object (thus making the form inverse) and the forms are not you-and-me forms (thus ruling out the you-and-me theme signs -i and -eθ). The pattern in (46) is thus highly significant. I will first show that this pattern provides additional evidence against the full direction-marking approach that was already discredited in the preceding section, and will then show that it discredits the partial direction-marking approach as well.

The full direction-marking approach treats the you-and-me theme signs as a direct-inverse pair (DIR -i, INV -eθ) that parallels the more general pair (DIR -a-, INV -ekw). I argued above that the classification of -i and -eθ as direction markers is flawed, and this argument is bolstered by the 3—1 conjunct form in (46). As Macaulay (2009:369) points out, this form should logically be inverse, as the 3rd-person subject is outranked by the 1st-person object, but it instead contains the putative direct theme sign -i. To maintain the full direction-marking approach, we could say that -i can be either direct or inverse, but this robs the approach of its central insight. Alternatively, we could say that that the 3—1 conjunct form is in fact (somehow) direct, but this incorrectly predicts that the opposite 1—3 conjunct form should be inverse, when it in fact displays the direct theme sign -a-, as shown in (45) above. The full direction-marking approach thus becomes completely incoherent in the conjunct order.

The failure of the full direction-marking approach is not surprising, as this approach was already discredited. More significant is that the conjunct pattern in (46) discredits the partial direction-marking approach as well. The partial direction-marking approach posits a strict separation between the you-and-me forms, which have special dedicated theme signs, and the remaining forms, in which the direct-inverse system operates. This separation, which is descriptively valid in the independent order, is illustrated in (47).
(47) The partial direction-marking approach in the independent order

<table>
<thead>
<tr>
<th>YOU-AND-ME FORMS</th>
<th>ELSEWHERE</th>
</tr>
</thead>
<tbody>
<tr>
<td>-i, -eθ</td>
<td>INV 3—1/2</td>
</tr>
</tbody>
</table>

When we attempt to apply this separation to the conjunct order, however, the changed distribution of theme signs gives us the picture in (48), in which it is no longer possible to draw a neat line between the two pairs of theme signs: the "you-and-me" theme signs occur not only in you-and-me forms, but in a subset of "elsewhere" inverse forms as well (from (46)).

(48) The partial direction-marking approach in the conjunct order

<table>
<thead>
<tr>
<th>YOU-AND-ME FORMS</th>
<th>ELSEWHERE</th>
</tr>
</thead>
<tbody>
<tr>
<td>-i, -eθ</td>
<td>INV 3—1/2</td>
</tr>
</tbody>
</table>

The theme signs -i and -eθ are thus not, in fact, dedicated to you-and-me forms at all. This finding is inconsistent with the partial direction-marking approach, as this approach depends crucially on a strict distinction between the theme signs of you-and-me forms and elsewhere forms that does not exist in the conjunct.

I conclude that despite the intuitive appeal of the direction-marking approach and its widespread adoption, it is not tenable as a serious theoretical analysis of Proto-Algonquian in either its full or its partial form, as it cannot coherently account for the patterning of theme signs across the independent and conjunct orders.

2.6 Theme signs as a heterogeneous set

The conjunct forms that invalidate the direction-marking approach also provide the key to a new understanding of the patterning of theme signs, one which will be retained for the remainder of this thesis. I propose that theme signs in fact instantiate two distinct kinds of marking that compete for the same morphological slot. This section begins by identifying the two distinct kinds of marking, which are argued to be object agreement and inverse marking (§2.6.1). I then provide evidence that these two kinds of marking correlate with two distinct but adjacent structural positions (§2.6.2). Finally, I show that the apparent competition of the two types of marking for the same surface "theme sign" slot is in fact simply an historical
accident that arose from a pre-existing rule of allomorphy (§2.6.3). Theme signs are thus not a unified category in any respect other than their surface realization.

### 2.6.1 Two kinds of theme signs

Consider the full set of Proto-Algonquian TA theme sign patterns from (43)–(46) above, repeated in (49). Note, again, the difference between the independent and the conjunct pattern: where the independent 3—2 and 3—1 forms have the inverse theme sign -ekw, the corresponding conjunct forms instead have the you-and-me theme signs -eθ and -i.

(49) Proto-Algonquian TA theme signs

<table>
<thead>
<tr>
<th>CONJUNCT</th>
<th>INDEPENDENT</th>
</tr>
</thead>
<tbody>
<tr>
<td>3—4</td>
<td>-a∙</td>
</tr>
<tr>
<td>4—3</td>
<td>-ekw</td>
</tr>
<tr>
<td>2—1</td>
<td>-i</td>
</tr>
<tr>
<td>1—2</td>
<td>-eθ</td>
</tr>
<tr>
<td>2—3</td>
<td>-a∙</td>
</tr>
<tr>
<td>1—3</td>
<td>-a∙</td>
</tr>
</tbody>
</table>
| 3—1      | -i          | -ekw
| 3—2      | -eθ         | -ekw

As a result of the use of the you-and-me theme signs in the 3—1 and 3—2 conjunct forms, the inverse theme sign -ekw in fact occurs only once in the conjunct order: in the 4—3 form. Since the conjunct order is much older than the independent (as described in Chapter 1), what the patterning in (49) effectively means is that the use of the inverse theme sign -ekw has spread to more contexts in the independent order.

The spread of inverse -ekw is puzzling, but since -ekw is clearly an unstable part of the system, let us temporarily set it aside and consider whether the remaining theme signs, shown in (50), display any consistent pattern. It turns out that they do: once we abstract away from -ekw, all the other theme signs consistently correlate with the person of the object, as observed by Rhodes (1994:431–2) and Brittain (1999b), and to a partial extent by McGinnis (1999:9), Macaulay (2009:370), and Lochbihler (2012:85), among others.
Proto-Algonquian TA theme signs, ignoring inverse -ekw

<table>
<thead>
<tr>
<th>CONJUNCT</th>
<th>INDEPENDENT</th>
</tr>
</thead>
<tbody>
<tr>
<td>3—4</td>
<td>-a·</td>
</tr>
<tr>
<td>4—3</td>
<td>-a·</td>
</tr>
<tr>
<td></td>
<td>(-a· = 4OBJ)</td>
</tr>
<tr>
<td>2—1</td>
<td>-i</td>
</tr>
<tr>
<td>1—2</td>
<td>-eθ</td>
</tr>
<tr>
<td></td>
<td>(-i = 1OBJ)</td>
</tr>
<tr>
<td></td>
<td>(-eθ = 2OBJ)</td>
</tr>
<tr>
<td>2—3</td>
<td>-a·</td>
</tr>
<tr>
<td>1—3</td>
<td>-a·</td>
</tr>
<tr>
<td></td>
<td>(-a· = 3OBJ)</td>
</tr>
<tr>
<td>3—1</td>
<td>-i</td>
</tr>
<tr>
<td>3—2</td>
<td>-eθ</td>
</tr>
<tr>
<td></td>
<td>(-i = 1OBJ)</td>
</tr>
<tr>
<td></td>
<td>(-eθ = 2OBJ)</td>
</tr>
</tbody>
</table>

In other words, aside from inverse -ekw, theme signs are in fact object person agreement. We can thus posit the entirely new formulation of the Theme Sign Selection Rule in (51).

(51) **Theme Sign Selection Rule** (agreement version)

- -i  $\leftrightarrow$ 1st-person object
- -eθ  $\leftrightarrow$ 2nd-person object
- -a·  $\leftrightarrow$ 3rd-person object (proximate 3 or obviative 4)

(inverse -ekw not yet explained)

We can now understand the unexpected appearance of the “you-and-me” theme signs -i and -eθ in the conjunct 3—1 and 3—2 forms. Rather than being special “you-and-me” theme signs, -i and -eθ are simply 1st/2nd-person object agreement. In the conjunct, they occur whenever the object is 1st/2nd-person (Goddard 1979b:84). In the independent, they have been replaced by the inverse theme sign -ekw in 3rd-person subject forms (for reasons discussed below) and thus occur only in the you-and-me forms, as shown in (52).
Replacement of 1/2 object agreement by inverse -ekw in certain independent forms

<table>
<thead>
<tr>
<th>FORMS WITH 1ST/2ND-PERSON OBJECTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>YOU-AND-ME FORMS</td>
</tr>
<tr>
<td>(1/2 object agreement)</td>
</tr>
<tr>
<td><strong>CONJUNCT</strong></td>
</tr>
<tr>
<td>2—1</td>
</tr>
<tr>
<td>1—2</td>
</tr>
<tr>
<td><strong>INDEPENDENT</strong></td>
</tr>
<tr>
<td>2—1</td>
</tr>
<tr>
<td>1—2</td>
</tr>
</tbody>
</table>

The object-agreement analysis gives us a simple and consistent account of the theme signs -i (1OBJ), -eθ (2OBJ), and -a∙ (3/4OBJ), but what about the inverse theme sign -ekw? The contexts in which -ekw appears are reviewed in (53).

Contexts for inverse -ekw in Proto-Algonquian

<table>
<thead>
<tr>
<th>CONJUNCT</th>
<th>INDEPENDENT</th>
</tr>
</thead>
<tbody>
<tr>
<td>4—3</td>
<td>4—3</td>
</tr>
<tr>
<td>3—1</td>
<td></td>
</tr>
<tr>
<td>3—2</td>
<td></td>
</tr>
</tbody>
</table>

Unlike the other theme signs, -ekw cannot be an object-agreement marker, as it appears with objects of all persons (1, 2, and 3) and overrides the object-agreement theme sign that would otherwise occur with these persons. Since all of the forms in which -ekw appears have 3rd/4th-person subjects, we might wonder whether -ekw is actually a 3rd/4th-person subject marker, but this is contradicted by the 3—4 form, which has a 3rd-person subject but takes the theme sign -a., not -ekw (see (50) above). The differing distribution of -ekw in the conjunct and the independent is a further indication that its conditioning cannot be a simple matter of subject or object agreement, as already concluded in Section 2.2 above.

Instead, it appears that -ekw is the one case in which we must retain something like the direction-marking approach to theme signs. The contexts for -ekw in (53) all involve an object that outranks the subject on the Person Hierarchy, so we must conclude, as we have said all along, that -ekw is sensitive to the relative status of the two arguments. While the other theme signs are object-agreement markers, -ekw truly is some sort of inverse marker.
However, if -ekw, as an inverse marker, is governed by the Person Hierarchy, why does it pattern differently in the conjunct and independent orders? Why do more forms qualify as inverse in the independent than in the conjunct? If it truly is only the hierarchy that governs the appearance of -ekw, then we are forced to say that there are in fact two Person Hierarchies, one for each inflectional order. In the conjunct hierarchy, shown in (54a), only the 4th person is outranked by other persons, so only 4th-person-subject forms get the inverse marker -ekw. In the independent hierarchy, shown in (54b), the 3rd person is also outranked by other persons, so 3rd-person-subject forms can be inverse as well.

(54) Relativized Person Hierarchy

\begin{align*}
\text{a. CONJUNCT: } & 1/2/3 > 4 \quad \text{(result: only 4—3 form gets inverse -ekw)} \\
\text{b. INDEPENDENT: } & 1/2 > 3 > 4 \quad \text{(result: 3—1/2 forms also get inverse -ekw)}
\end{align*}

This formulation is less than satisfactory as a theoretical analysis, and we will see in Chapter 4 that it can in fact be derived from more basic principles of agreement. Descriptively, however, it appears to be both accurate and necessary. We have thus arrived at a final descriptive understanding of the Theme Sign Selection Rule: as stated in (55), the theme sign marks object person agreement except when it is overridden by the inverse marker -ekw, which appears when the person of the object outranks that of the subject on the relevant version of the Person Hierarchy.

(55) Theme Sign Selection Rule (final version)

\begin{align*}
\text{a. If the object outranks the subject on the relevant Person Hierarchy, } & \text{T.S. } \leftrightarrow -ekw \\
\text{b. Otherwise, T.S. } & \leftrightarrow \text{ object agreement:} \\
& -i \leftrightarrow \text{1st-person object} \\
& -e\theta \leftrightarrow \text{2nd-person object} \\
& -a \leftrightarrow \text{3rd/4th-person object}
\end{align*}

This revised understanding of theme signs means that it is no longer accurate to speak of “direct” versus “inverse” theme signs. Instead, there are three OBJECT-AGREEMENT THEME SIGNS (-i 1OBJ, -e\theta 2OBJ, -a· 3/4OBJ) and one INVERSE THEME SIGN (-ekw).\footnote{To my knowledge, the closest parallel to this proposal in the existing literature is in the work of Rhodes (1976, 1994:431–2). I share with Rhodes the crucial proposal that the “direct” theme sign -a· is actually a 3rd-person object marker. However, I differ from Rhodes in the analysis of -e\theta: I analyze it uniformly as a 2nd-person object marker while Rhodes analyzes it as an object marker in some morphosyntactic contexts and an inverse marker in others (e.g. Rhodes 1994:432 on the Ojibwe reflex -in).}
2.6.2 Two structural positions for theme signs

The conclusion that there are actually two kinds of theme signs—object agreement and inverse marking—is reinforced by evidence that the two kinds of theme signs occupy different structural positions. The evidence comes from an intriguing pattern involving the verbal diminutive suffix -isi in Plains Cree. Wolfart (1973:61) observed that the diminutive suffix follows the theme signs that I have classified as object agreement but precedes the inverse theme sign -ekw, as shown by the examples in (56).

(56) Varying order of theme signs and diminutive -isi in Plains Cree (Wolfart 1973:61)

<table>
<thead>
<tr>
<th>T.S.</th>
<th>FORM</th>
<th>INFLECTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>T.S.~DIM</td>
<td>AGR</td>
<td></td>
</tr>
<tr>
<td>PFX</td>
<td>STEM</td>
<td>T.S.~DIM</td>
</tr>
<tr>
<td>3/4OBJ -e·</td>
<td>pakamahwe·siw</td>
<td>/pakamahw-</td>
</tr>
<tr>
<td>(= PA -a-)</td>
<td>'s/he hits the other'</td>
<td>hit</td>
</tr>
<tr>
<td>0BJ -it</td>
<td>kipakamahotisin</td>
<td>/ki- pakamahw-</td>
</tr>
<tr>
<td>(= PA -eθ)</td>
<td>'I hit you'</td>
<td>2</td>
</tr>
<tr>
<td>1OBJ -i</td>
<td>pakamahosiyen</td>
<td>/pakamahw-</td>
</tr>
<tr>
<td>(= PA -i)</td>
<td>'you hit me'</td>
<td>hit</td>
</tr>
<tr>
<td>INV -ikw</td>
<td>pakamahosikot</td>
<td>/pakamahw-</td>
</tr>
<tr>
<td>(= PA -ekw)</td>
<td>'the other hits him/her'</td>
<td>hit</td>
</tr>
</tbody>
</table>

In other words, the object-agreement theme signs occur inside the diminutive suffix while the inverse theme sign occurs outside the diminutive suffix. Under a Mirror Principle approach to the morphology-syntax relationship (Baker 1985), this asymmetry indicates that the object-agreement theme signs are closer to the verb stem while the inverse theme sign is more distant, as schematized in (57). (This observation has also been made by Déchaine and Reinholtz (2008) and Mühlbauer (2008:281), but not in the context of the current analysis of the non-inverse theme signs as object agreement.)

\[5\] In fact, as Wolfart (1973:61) notes, the 1st-person object form could actually involve either of the two possible orders of the theme sign -i and the diminutive suffix -isi, since both orders (i + isi and isi + i) would have the same surface realization due to coalescence of the i+i sequence.
(57) Relative syntactic positions of theme signs and diminutive suffix

a. Object-agreement theme signs  

b. Inverse theme sign -ekw

If the two classes of theme signs are indeed two different kinds of marking, as I propose, then it is not surprising that they occupy different positions. It is also not surprising that the higher of the positions is occupied by the inverse theme sign, since the inverse theme sign reflects the relative status of the subject and the object with respect to each other while the object-agreement theme signs reflect features of the object alone. If we assume that these dependencies involve c-command, then the inverse theme sign must be syntactically superior to both arguments while the object-agreement theme signs need only be superior to the object, as indicated in (58).

(58) Syntactic scope of the two classes of theme signs (dotted lines = dependencies)

We have thus observed that not only do the two kinds of theme signs occupy two different syntactic positions, but the relative height of these positions matches that of the arguments that the two kinds of theme signs are sensitive to. This observation provides additional evidence that the “theme sign” slot in fact consists of two distinct kinds of marking.
2.6.3 On the complementary spellout of theme signs

The asymmetries in conditioning (§2.6.1) and position (§2.6.2) provide ample grounds for classifying the theme signs into the two distinct grammatical categories of object agreement and inverse marking. However, in order to complete our descriptive understanding of theme signs, we must address one final question: if the two theme sign categories are indeed distinct, why does an Algonquian verb only ever contain one theme sign? That is, how can the evidence that the theme signs occupy two distinct syntactic positions be reconciled with their morphological complementarity? The section begins with a clarification of the problem (§2.6.3.1). The basis for a solution is then established through a closer examination of the spell-out of theme signs in the conjunct order (§2.6.3.2). This makes it possible to resolve the complementarity problem (§2.6.3.3).

2.6.3.1 The problem of complementarity

To make the complementarity problem more explicit, consider again the contexts that trigger inverse marking in the two inflectional orders, repeated in (59).

(59) Contexts for inverse -ekw in Proto-Algonquian (from (53))

<table>
<thead>
<tr>
<th>CONJUNCT</th>
<th>INDEPENDENT</th>
</tr>
</thead>
<tbody>
<tr>
<td>4—3</td>
<td>4—3</td>
</tr>
<tr>
<td>3—1</td>
<td></td>
</tr>
<tr>
<td>3—2</td>
<td></td>
</tr>
</tbody>
</table>

The inverse theme sign -ekw occurs in these forms because the object outranks the subject on the relevant Person Hierarchy (see (54) above). However, the forms still do have objects, so if the inverse theme sign and the object-agreement theme signs are actually distinct categories in distinct syntactic positions, as argued at length above, why is it that these forms cannot surface with both the inverse theme sign and the appropriate object-agreement theme sign? That is, what rules out the ungrammatical forms in the first column in (60)?
The lack of object-agreement theme signs in inverse forms (TA stem `wa-pam- ‘see’)
Selection Rule in (61) is thus nothing more than a morphological quirk that arose by historical accident, so it does not undermine the proposed division of theme signs into two classes.

2.6.3.2 Toward a solution: spell-out of conjunct theme signs

To lay the groundwork for a solution, we must take a closer look at a complication in the spell-out of the 3/4OBJ theme sign \( -a \cdot \) in the conjunct order. What we expect is for \( -a \cdot \) to occur in all non-inverse forms that have a 3rd- or 4th-person object, as it does in the independent. And this is indeed sometimes the case, as in the 3—4 conjunct form in (62).

(62) Conjunct 3—4 form with 3/4OBJ theme sign \( -a \cdot \)

\[
\begin{align*}
\text{wa-pam-} & \quad \underline{-a \cdot } & \quad \text{t} & \quad -e \cdot \\
\text{see} & \quad -3/4OBJ & \quad -3s & \quad -sjv \\
\text{‘if s/he sees the other’}
\end{align*}
\]

However, several other 3rd-person object forms show up in the conjunct without the expected \( -a \cdot \) marker—in fact, without any overt theme sign at all, as shown in (63).

(63) Conjunct 3OBJ forms with no overt theme sign

<table>
<thead>
<tr>
<th>STEM</th>
<th>T.S.</th>
<th>AGR</th>
<th>MODE</th>
</tr>
</thead>
<tbody>
<tr>
<td>1s—3s</td>
<td>wapam-</td>
<td>-Ø</td>
<td>(-ak) 1s—3s -sjv</td>
</tr>
<tr>
<td>1p—3s</td>
<td>wapam-</td>
<td>-Ø</td>
<td>(-akent) 1p—3s sjv</td>
</tr>
<tr>
<td>21p—3s</td>
<td>wapam-</td>
<td>-Ø</td>
<td>(-ank) 21p sjv</td>
</tr>
<tr>
<td>2s—3s</td>
<td>wapam-</td>
<td>-Ø</td>
<td>(-at) 2s—3s sjv</td>
</tr>
<tr>
<td>2p—3s</td>
<td>wapam-</td>
<td>-Ø</td>
<td>(-e\cdot kw) 2p sjv</td>
</tr>
</tbody>
</table>

The absence of the theme sign \( -a \cdot \) here is puzzling. Why should these be the only TA forms in all of Proto-Algonquian to completely lack a theme sign? The answer lies in a more complex form that can be reconstructed by comparing the Central Algonquian language Ojibwe (Valentine 2001) and the Eastern Algonquian language Munsee Delaware (Goddard 1979b).\(^6\)

\(^6\)I am grateful to Ives Goddard (p.c.) for bringing this solution to my attention by pointing the Delaware facts out to me; see also Goddard 2006:189. The same observation has been made for Ojibwe by Rhodes (1976:176–7) and Lochbihler (2012:85–6).
First, to establish that these languages display the same patterns as PA, the well-behaved 3—4 conjunct form from (62) above is displayed in (64) for all three languages. The form is equivalent across the languages, with the expected 3OBJ theme sign \(-a\cdot\) occurring uniformly.

(64) Conjunct forms with 3/4OBJ theme sign \(a\cdot\)

<table>
<thead>
<tr>
<th>STEM</th>
<th>T.S.</th>
<th>AGR</th>
<th>MODE</th>
</tr>
</thead>
<tbody>
<tr>
<td>PA</td>
<td>(-a\cdot)</td>
<td>-t</td>
<td>-e·</td>
</tr>
<tr>
<td>see</td>
<td>-3/4OBJ</td>
<td>-3s</td>
<td>-sjv</td>
</tr>
<tr>
<td>Ojibwe</td>
<td>(-a\cdot)</td>
<td>-d</td>
<td></td>
</tr>
<tr>
<td>see</td>
<td>-3/4OBJ</td>
<td>-3s</td>
<td></td>
</tr>
<tr>
<td>Munsee</td>
<td>(-a\cdot)</td>
<td>-t</td>
<td></td>
</tr>
<tr>
<td>give</td>
<td>-3/4OBJ</td>
<td>-3s</td>
<td></td>
</tr>
</tbody>
</table>

The problem that we saw in (63) above is that some PA 3OBJ forms, such as the 1s—3s form, unexpectedly lack the \(-a\cdot\) theme sign. The unexpected absence of \(-a\cdot\) occurs in Ojibwe and Munsee as well, as shown in (65).

(65) Conjunct 1s—3s form: expected 3/4OBJ theme sign \(a\cdot\) does not appear

<table>
<thead>
<tr>
<th>STEM</th>
<th>T.S.</th>
<th>AGR</th>
<th>MODE</th>
</tr>
</thead>
<tbody>
<tr>
<td>PA</td>
<td>(-Ø)</td>
<td>-ak</td>
<td>-e·</td>
</tr>
<tr>
<td>see</td>
<td>-1s—3s</td>
<td>-sjv</td>
<td></td>
</tr>
<tr>
<td>Ojibwe</td>
<td>(-Ø)</td>
<td>-ag</td>
<td></td>
</tr>
<tr>
<td>see</td>
<td>-1s—3s</td>
<td></td>
<td>(Valentine 2001:295)</td>
</tr>
<tr>
<td>Munsee</td>
<td>(-Ø)</td>
<td>-ak</td>
<td></td>
</tr>
<tr>
<td>give</td>
<td>-1s—3s</td>
<td></td>
<td>(Goddard 1979:184)</td>
</tr>
</tbody>
</table>

Thus far we have established that Ojibwe and Munsee share the same problem as PA. However, they also hold the key to the solution. If we take the Ojibwe and Munsee 1s—3s forms in (65) and add the negative suffix, which occupies a slot between the theme sign and the agreement suffix, the expected theme sign \(-a\cdot\) suddenly appears as well, as shown in (66) along with a corresponding reconstruction for PA.
(66) Conjunct 1s—3s form: negative suffix restores expected 3/4OBJ theme sign -a·

<table>
<thead>
<tr>
<th>STEM</th>
<th>T.S.</th>
<th>NEG</th>
<th>AGR</th>
<th>MODE</th>
</tr>
</thead>
<tbody>
<tr>
<td>PA</td>
<td>wa-pam-</td>
<td>-w</td>
<td>-ak</td>
<td>-e·</td>
</tr>
<tr>
<td></td>
<td>see</td>
<td></td>
<td>-3/4OBJ -NEG -1s—3s sjv</td>
<td></td>
</tr>
<tr>
<td>Ojibwe</td>
<td>wa-bm-</td>
<td>-siw</td>
<td>-ag</td>
<td></td>
</tr>
<tr>
<td></td>
<td>see</td>
<td></td>
<td>-3/4OBJ -NEG -1s—3s</td>
<td>(Valentine 2001:299)</td>
</tr>
<tr>
<td>Munsee</td>
<td>mi-l-</td>
<td>-w</td>
<td>-ak</td>
<td></td>
</tr>
<tr>
<td></td>
<td>give</td>
<td></td>
<td>-3/4OBJ -NEG -1s—3s</td>
<td>(Goddard 1979:185)</td>
</tr>
</tbody>
</table>

It seems, then, that the conjunct 3OBJ forms do not truly lack the expected 3OBJ theme sign -a· at a deep level, since the addition of the negative suffix is enough to make the expected theme sign appear. Instead, we are dealing with a case of allomorphy. If the affirmative and negative 1s—3s forms are compared, there is an obvious difference: in the affirmative form, the theme sign position is followed by a vowel-initial suffix, while in the negative form, the following suffix is consonant-initial, as shown in (67).

(67) PA conjunct 1s—3s forms, affirmative and negative

<table>
<thead>
<tr>
<th>AFFIRMATIVE</th>
<th>wa-pam</th>
<th>-Ø</th>
<th>-ak</th>
<th>-e·</th>
<th>‘if I see him/her’</th>
</tr>
</thead>
<tbody>
<tr>
<td>see</td>
<td></td>
<td>?</td>
<td></td>
<td>-1s—3s sjv</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>NEGATIVE</th>
<th>wa-pam</th>
<th>-a·</th>
<th>-w</th>
<th>-ak</th>
<th>-e·</th>
<th>‘if I do not see him/her’</th>
</tr>
</thead>
<tbody>
<tr>
<td>see</td>
<td>-3/4OBJ -NEG -1s—3s sjv</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The absence of -a· in the affirmative form thus appears to result from nothing more than the avoidance of the vowel-vowel sequence -a·+ak. This explanation, which applies to all of the “missing -a·” forms in (63) above, can be formalized in a simple rule of allomorphy that spells out the 3/4OBJ theme sign as -Ø before a vowel and as -a· elsewhere (Goddard 1979b:87). We can refine the Theme Sign Selection Rule by incorporating this allomorphy, as in (68).

(68) Theme Sign Selection Rule (with allomorphy of -a·, cf. (55))

a. If the object outranks the subject on the relevant Person Hierarchy, t.s. $\leftarrow -ekt$

b. Otherwise, t.s. $\leftarrow$ object agreement:

1st-person object $\leftarrow -i$

2nd-person object $\leftarrow -e\theta$

3rd/4th-person object $\leftarrow -\Omega / __ +V$

-a· elsewhere
2.6.3.3 Resolving the complementarity problem

Our refined understanding of the spell-out of the conjunct 3/4OBJ theme sign provides the key to resolving the broader problem of the apparent complementarity of the inverse and object-agreement theme signs. Let us begin by considering the complementarity problem in the Proto-Algonquian conjunct order, which, as was shown in (59) above, has only a single inverse form: the 4—3 form in (69).

(69) The only PA conjunct form with inverse -ekw (4—3)

\[
\begin{array}{c}
\text{wa-pam} [\text{-ekw}] \text{et-}e. \\
\text{see} \hspace{1cm} \text{-INV -3s-SJV}
\end{array}
\]

‘if the other sees him/her’

Since the conjunct order is more archaic than the independent order, the form in (69) would actually have been the only inverse form in the entire language during the stages of Pre-Proto-Algonquian that precede the innovation of the independent inflection. And since the complementarity problem only arises in inverse forms, the form in (69) would also have been the only form in the language in which the complementarity problem arises. The problem, in particular, is why this 4—3 form cannot contain the 3/4OBJ theme sign -a- in addition to the inverse theme sign -ekw, since the two theme signs purportedly occupy different syntactic positions and should thus both be able to occur, as indicated in (70).

(70) Why not -a- + -ekw? (conjunct 4—3 form ‘the other sees him/her’)

<table>
<thead>
<tr>
<th>UNATTENDED FORM:</th>
<th>ATTESTED FORM:</th>
</tr>
</thead>
<tbody>
<tr>
<td>OBJECT AGR + INVERSE</td>
<td>INVERSE ONLY</td>
</tr>
<tr>
<td>*wa-pam [a-ekw] et-e.</td>
<td>wa-pam [ekw] et-e.</td>
</tr>
<tr>
<td>see -3OBJ-INV -3s-SJV</td>
<td>see -INV -3s-SJV</td>
</tr>
</tbody>
</table>

However, thanks to our refined understanding of the spell-out of the 3/4OBJ theme sign, the complementarity problem in this form has dissolved, since in the unattested form in (70), the 3/4OBJ theme sign -a- is followed by the vowel-initial suffix -ekw, a context in which the Theme Sign Selection Rule in (68) calls for the zero allomorph of the 3/4OBJ theme sign. We can thus claim that the attested form actually does contain the 3/4OBJ theme sign in addition to the inverse theme sign, as predicted by the analysis of these theme signs as distinct categories—it is simply the case that the 3/4OBJ theme sign surfaces in its zero allomorph, as it always does before a vowel. This new analysis of the 4—3 conjunct form is shown in (71).
Conjunct 4—3 form: object-agreement and inverse theme sign together

\[
\begin{array}{c}
wa∙pam -Ø -ekw -et-e. \\
see -3OBJ-INV -3s-sjv
\end{array}
\]

‘the other sees him/her’

In the conjunct order, then, the complementarity of the two kinds of theme signs is only apparent, a side-effect of the fact that in the one form where 3OBJ -a∙ and inverse -ekw co-occur, the zero allomorph of -a∙ is triggered by a regular and independently-attested rule of phonologically-conditioned allomorphy.

Since there is in fact no complementarity of theme signs in the conjunct, the disjunctive formulation of the Theme Sign Selection Rule in (68) above is unnecessary for conjunct forms—which means that it would have been unnecessary anywhere during the stages of Pre-Proto-Algonquian in which the independent order did not yet exist and the conjunct was the only major verb paradigm. Instead of the disjunctive formulation, this stage of Pre-PA could simply have had two separate rules for the two kinds of theme signs, as in (72), with the allomorphy in (72b) automatically creating the appearance of complementarity when 3/4OBJ -a∙ happens to be followed by inverse -ekw.

(72) Theme Sign Selection Rule (Pre-PA, conjunct only, cf. (68))

a. Inverse theme sign (higher syntactic position)
   object outranks subject \(\leftrightarrow\) -ekw
   subject outranks object \(\leftrightarrow\) -Ø

b. Object-agreement theme sign (lower syntactic position)
   1st-person object \(\leftrightarrow\) -i
   2nd-person object \(\leftrightarrow\) -eθ
   3rd/4th-person object \(\leftrightarrow\) -Ø / \_\_ +V,
      -a∙ elsewhere

However, while the non-disjunctive formulation of the Theme Sign Selection Rule in (72) is possible, it is not clear whether all learners of Pre-PA would necessarily arrive at it. Since there is surface complementarity of 3/4OBJ -a∙ and inverse -ekw in any case, it is possible that some learners would arrive at a phonologically-conditioned rule like the formulation in (72) while others would arrive at something more like the original disjunctive formulation in (68). These two alternatives are informally represented in (73). Despite the fact that the first is conditioned phonologically (by a following vowel) while the second is conditioned
morphologically (by a following inverse -ekw), they both make exactly the same predictions about the surface form—namely, that -a· will not surface before -ekw.

(73) Two possible Pre-PA rules to account for the surface non-occurrence of -a· + -ekw

a. **Phonologically conditioned rule**
   \[-a· \rightarrow \emptyset / \_\_ +V\]

b. **Morphologically conditioned rule**
   \[\text{theme sign} \rightarrow \emptyset / \_\_ \text{inverse -ekw}\]

Although we cannot determine with certainty which alternative Pre-PA speakers would have had, the two alternatives lie in a clear diachronic sequence: given the tendency for rules to progress from phonetic to phonological to morphological to lexical (the so-called “life cycle of phonological processes”; Bermúdez-Otero 2007), the morphological alternative in (73b) must be a diachronically later stage than the phonological alternative in (73a). We might thus expect that at least some Pre-PA speakers would have progressed to rule (73b)—particularly given that the phonological conditioning of rule (73a) would already have been idiosyncratic, since long vowels do not normally delete before short vowels in PA (Pentland 1979:406).

Confirmation of an eventual shift to the formulation in (73b) is provided by the independent order, in which the expansion of the inverse theme sign -ekw to forms with 1st/2nd-person objects was accompanied by the extension of complementary spell-out to the resulting putative -i+ekw (1OBJ+INV) and -eθ+ekw (2OBJ+INV) sequences in addition to the -a·+ekw (3OBJ+INV) sequences that were affected in the conjunct (see (60) above). Since these new instances of complementarity are predicted by the morphological rule in (73b) but not by the overly-specific phonological rule in (73a), the morphological rule must have become dominant by the time the independent order developed. The independent order thus confirms the diachronic trajectory of the two rules in (73).

In conclusion, the discussion in this section has identified a clear origin for the complementarity of theme signs in a rule of phonologically-conditioned allomorphy that also applied elsewhere in the conjunct order. In light of this origin, the phonologically conditioned rule in (73a) must have existed at a sufficiently early stage of Pre-PA. This rule was subsequently abstracted into the morphologically-conditioned version in (73b), thus effectively writing the complementarity of theme signs into the grammar and enabling its expansion when the independent order developed. The “complementarity problem” is thus not, in fact, a problem at all. While it is right to be concerned that the use of complementary spell-out may be an
analytical trick, in this case the diachronic origins and development of complementarity are clear, so we can be confident that it is a genuine quirk of the morphology.

## 2.7 Desiderata for an analysis of theme signs and inverse marking

This chapter has examined the properties of Algonquian theme signs and inverse marking in detail, proceeding from the standard account through a series of possible approaches, eventually arriving at an understanding that differs significantly from typical views, but is arguably also more theoretically defensible and better-grounded in the diachronic facts and the full range of independent and conjunct forms.

Going forward, the following are five essential properties of the direct-inverse system that a theoretical analysis must account for in a unified way. First, it must account for the fact that theme signs fall into two distinct grammatical categories—object person agreement and inverse marking—whose distribution follows the Theme Sign Selection Rule in (74). (An explanation of this rule must include an explanation of what “inverse marking” actually is.)

(74) **Theme Sign Selection Rule** (from (68))

a. If the object outranks the subject on the relevant Person Hierarchy, t.s. $\leftrightarrow -ekw$

b. Otherwise, t.s. $\leftrightarrow$ object agreement:

1st-person object $\leftrightarrow -i$
2nd-person object $\leftrightarrow -e\theta$
3rd/4th-person object $\leftrightarrow \emptyset / _-_V$, $\emptyset / _-_a\_a$ elsewhere

Second, the analysis must derive the two Person Hierarchies that the Theme Sign Selection Rule makes reference to:

(75) **Relativized Person Hierarchy** (from (54))

a. **CONJUNCT:** 1/2/3 $>$ 4 (result: only 4—3 form gets inverse -ekw)

b. **INDEPENDENT:** 1/2 $>$ 3 $>$ 4 (result: 3—1/2 forms also get inverse -ekw)

Third, the analysis must explain the Agreement Target Rule, which accounts for the arguments targeted by the two agreement slots on a prototypical independent-order verb. (This rule does not apply to the conjunct order, which employs only a single agreement suffix, nor to the you-and-me forms of the independent order, which are exceptional in that the prefix and inner suffix agree with different arguments.)
(76) **Agreement Target Rule** (from (3))

a. The prefix and inner suffix agree with the higher-ranked argument.

b. The outer suffix agrees with the lower-ranked argument.

Fourth, the analysis must account for the syntactic prominence of the object in an inverse form, as expressed in (77), including the fact that this prominence is limited to the agreement morphology in some languages but extends to the syntax in others.

(77) **Prominence of inverse objects** (§2.4)

a. In all Algonquian languages, inverse objects trigger prefix and inner suffix agreement in independent-order forms.

b. In some Algonquian languages, inverse objects undergo A-movement to a position above the subject.

Fifth, the analysis must explain why the inverse theme sign -ekw occupies a higher syntactic position than the object-agreement theme signs -i (1OBJ), -eθ (2OBJ), and -a- (3/4OBJ).

After a range of existing analyses are reviewed in Chapter 3, Chapter 4 will present an analysis of the direct-inverse system that derives all of the above properties from more general principles of agreement.
3

Existing theoretical approaches to theme signs

The direct-inverse system is undoubtedly the aspect of Algonquian morphosyntax that has received the most theoretical attention. From an Algonquian-internal perspective, the central morphosyntactic role played by the direct-inverse system makes its analysis an essential prerequisite for any broader account of Algonquian verb inflection. From a crosslinguistic perspective, the unusual typological status of the system combines with its considerable complexity to make it a formidable test for any theory of inflection. This chapter surveys the existing theoretical work, which has taken a variety of entirely different approaches to understanding what lies at the core of the direct-inverse system.

The first half of the chapter reviews a series of approaches that will not, in large part, be followed in this thesis: analyses that treat theme signs as morphological markers of hierarchical alignment (§3.1), analyses that treat the inverse as a passive (§3.2), certain types of agreement analyses (§3.3), and analyses that treat theme signs as viewpoint aspect (§3.4). Although I will not directly follow any of these approaches, my analysis will share some of their properties, which I will point out. The second half of the chapter examines in detail two analyses that this thesis will build upon: the A-movement analysis proposed by Bruening (§3.5) and the Cyclic Agree analysis proposed by Bejar and Rezac (§3.6).

3.1 Theme signs as hierarchical alignment markers

Alignment analyses of theme signs formalize the direction-marking approach that was reviewed in the previous chapter (§2.5), under which the theme signs are seen as marking the alignment or misalignment of the argument-structure hierarchy (agent > patient) and the person hierarchy (2 > 1 > 3 > 4 in its fullest form, but see §2.5.2.1 and Macaulay 2009).
(1) Theme signs as hierarchical alignment markers (from (33), Chapter 2)

\[
\begin{array}{c|cccc}
\text{AGENT} & \text{DIR} & \rightarrow & \text{PATIENT} \\
\hline
2 & 1 & 3 & 4 \\
\end{array}
\]

Under such an analysis, 1—3 and 3—4 forms would be marked with the direct theme sign \(-a\) to indicate that the two hierarchies coincide while 3—1 and 4—3 forms would be marked with the inverse theme sign \(-ekw\) to indicate that they do not.

Analyses of this type are common (e.g. Fabri 1996; Blain 1998; Aissen 1999; Wolvengrey 2005; Zúñiga 2006), but they face certain challenges. Empirically, the morphological nature of the alignment approach is difficult to reconcile with the evidence for syntactic movement of inverse objects (§2.4), which appears to require a syntactic analysis of the inverse. The alignment approach also has trouble accounting for the patterning of the “you-and-me” theme signs \(-i\) and \(-e\theta\) in the conjunct order (§2.5.2). Furthermore, on theoretical grounds, the alignment approach has been criticized for treating the person hierarchy as a theoretical primitive rather than a descriptive construct that can be explained further (e.g. Alexiadou and Anagnostopoulou 2002; Wilschko 2008). I consider these drawbacks significant and thus do not adopt this approach.\(^1\)

### 3.2 The inverse as a passive construction

Passive-like analyses of the inverse formalize the passive approach that was reviewed in the previous chapter (§2.3). Such analyses have been proposed by Rhodes (1976, 1994) for Ojibwe, LeSourd (1976) for Fox, and Jolley (1982) for Plains Cree. While LeSourd and Jolley propose that the inverse is derived from the direct by passivization in the familiar sense, Rhodes proposes that in an inverse form, the two arguments are, effectively, exchanged: the patient is the grammatical subject and the agent is the grammatical object.

An advantage of the passive-like approaches is that they straightforwardly account for the evidence that inverse objects are syntactically higher than subjects in Algonquian languages such as Passamaquoddy, as discussed in the previous chapter (§2.4.1). However, this advantage becomes a drawback with respect to languages such as Plains Cree, for which it has been argued that the inverse object is not higher than the subject (§2.4.2). It seems, then, that

\(^1\)These criticisms are blunted in an Optimality-Theoretic framework, where the use of hierarchies makes more sense—and indeed, a detailed and interesting OT account of the direct-inverse system in Menominee has been developed by Trommer (2003, 2006). In this thesis, however, I retain a derivational model of syntax.
while we want an analysis that gives the inverse object some sort of prominence, treating it as a full-fledged passive may be too strong. This consideration, together with the descriptive objections raised in the previous chapter (§2.3), leads me to reject the passive approach.

3.3 Agreement-based analyses

Although I will ultimately adopt an agreement-based analysis of the direct-inverse system, it will differ from two existing agreement-based approaches: one proposed by Halle and Marantz (1993), the other by Brittain (1999b).

Halle and Marantz (1993) present an extensive agreement-based treatment of Potawatomi morphology, but their analysis of the direct-inverse system is less than satisfying. As Trommer (2006) notes, the analysis depends crucially on the specification of DPs for a feature [OBVIATIVE], for which three values are possible: [+OBV], [-OBV], and unspecified for [OBV], which I will write as [ØOBV]. This, on its own, raises concerns, as the ternary use of binary features has been criticized (e.g. Stanley 1967). The problem is compounded by Halle and Marantz’s specification of non-obviative 3rd-person DPs as [-OBV] in some contexts and [ØOBV] in others, which makes the subtle contrast between [-OBV] and [ØOBV] critical to the analysis and, at the same time, somewhat arbitrary. A final complication comes from the rule that derives the direct-inverse contrast, which crucially targets non-minus-obviative DPs (i.e. [+OBV] and [ØOBV] DPs), a natural class that is unusual, to say the least. Halle and Marantz’s analysis of the direct-inverse system thus rests on a series of questionable and highly technical assumptions that provide little actual insight into what is, in effect, the central principle of Algonquian morphosyntax.

A more satisfying agreement analysis is offered by Brittain (1999b), who proposes that theme signs are uniformly object agreement. Brittain’s analysis matches mine for the theme signs -i (1OBJ), -eθ (2OBJ), and -a· (3/4OBJ). However, I will depart from Brittain in the analysis of the inverse theme sign -ekw, which occurs in 3—1, 3—2, and 4—3 forms. Based on the first two of these forms, Brittain analyzes -ekw as a 1st/2nd-person object marker, but in order to apply this analysis to the 4—3 form, she is forced to assume that the 3rd-person argument in such forms is “upgraded” to 1st/2nd-person status, an ad hoc rule that I will not adopt. Nevertheless, the basic picture that emerges from Brittain’s analysis matches the approach that I argued for in the preceding chapter: the theme signs -i, -eθ, and -a· are clearly object agreement while the inverse theme sign -ekw has a different and somewhat mysterious status. My solution to the exceptionality of -ekw will differ from Brittain’s.
3.4 Theme signs as viewpoint aspect

A final approach to theme signs that I will not follow is a recent proposal by Bliss, Ritter, and Wiltschko (2010, in press; henceforth BRW) for Nishnaabemwin (Ojibwe) and Blackfoot. Although I will not adopt BRW’s central theoretical proposal, my analysis will nevertheless have strong similarities with theirs.

BRW’s primary descriptive innovation is their proposal that theme signs are not a natural class, a conclusion that my own characterization of theme signs echoes (§2.6). BRW identify (at least) two functions for theme signs. The first function occurs in mixed forms—that is, forms with a participant subject and non-participant object (1—3 or 2—3) or vice versa (3—1 or 3—2). In such forms, BRW analyze the theme signs as markers of person-based viewpoint aspect, located in an Asp⁰ head immediately above the vP. The function of this Asp⁰ head is to indicate whether or not the actor is a participant (i.e. whether or not it is 1st/2nd-person). The direct theme sign -a∙ indicates that the actor is a participant while the inverse theme sign -ekw indicates that it is not, as shown in (2).

(2) BRW’s analysis of theme signs in mixed forms as viewpoint aspect

a. **DIRECT (1—3 or 2—3)**

```
AspP
  Asp  vP
    -a∙  1/2  3
  (actor = participant)
```

b. **INVERSE (3—1 or 3—2)**

```
AspP
  Asp  vP
    -ekw  3  1/2
  (actor ≠ participant)
```

The second function for theme signs occurs in non-local forms, in which both arguments are non-participants. In such forms, BRW analyze the theme signs as subject agreement on v, the head that introduces the subject, with the direct theme sign -a∙ marking a 3rd-person subject and the inverse theme sign -ekw marking a 4th-person subject, as shown in (3).

```
AspP
  Asp  vP
    -a∙  3  1/2
  (actor = participant)
```

```
AspP
  Asp  vP
    -ekw  1/2  3
  (actor ≠ participant)
```
In brief, then, BRW’s analysis is that the theme signs -a· and -ekw are aspectual markers in Asp\(^0\) in some forms and subject-agreement markers in v\(^0\) in other forms.

My problem with this analysis is that the proposed aspectual category is entirely dependent on the featural makeup of the actor argument. We normally think of functional heads as contributing their own semantic content, but in this case, the interpretable feature of Asp\(^0\) simply restates a property of the argument structure that is already present in v\(^0\). Furthermore, this restatement takes place in the absence of any formally explicit connection between Asp\(^0\) and the actor—somehow the Asp\(^0\) head simply knows what the actor’s features are. This implicit connection between Asp\(^0\) and the actor, together with the complete predictability of the feature specification of Asp\(^0\) from the features of the actor, makes the content of Asp\(^0\) look much less like an independent semantic contribution and much more like agreement.
My second concern involves the division of theme signs into two separate functions. I have suggested that direct -a- and inverse -ekw serve different functions (§2.6), but BRW make a more complex proposal, assigning some instances of both -a- and -ekw to one function (aspectual marking in Asp⁰) and other instances of both -a- and -ekw to another function (subject agreement in v⁰). With each theme sign divided into two completely separate markers, it becomes nothing more than a coincidence that aspect-marking -a- has the same spell-out as subject-agreement -a- (and likewise for -ekw). Unfortunately, this result loses the simple descriptive generalization governing all instances of -a- and -ekw, restated in (5).

(5) Traditional description of the conditioning of the theme signs -a- and -ekw (see §2.1)
   a. -a- occurs when the subject outranks the object on the Person Hierarchy
   b. -ekw occurs when the object outranks the subject on the Person Hierarchy

While it is desirable to dispense with the Person Hierarchy, the hierarchy expresses a unity in the occurrences of -a- and -ekw that is lost if each theme sign is divided into two separate markers. The BRW analysis not only loses this unity, but it in fact assigns exactly opposite functions to the two versions of -a-: the aspectual version of -a- marks a non-3rd-person subject (see (2)) while the agreement version of -a- marks a 3rd-person subject (see (3)). It is difficult to accept such a contradictory analysis of what is normally thought to be the same morpheme, particularly given the unity and simplicity of the traditional description in (5).

Because of these two concerns, I do not adopt the specifics of the BRW analysis. It is nevertheless a thought-provoking challenge to more conventional approaches, and the analysis that I propose will share many of its characteristics, including the overall approach of dividing theme signs into distinct functions, the positioning of theme signs in more than one functional head, and the idea that theme signs are sometimes agreement markers.

3.5 A-movement and the inverse: Bruening 2001, 2005

The analysis developed in this thesis is based primarily upon the proposals of Bruening (2001, 2005) and Bejar and Rezac (2009). I will argue that each of these analyses has shortcomings that the other analysis addresses. This section outlines Bruening’s analysis (§3.5.1), identifies two challenges that it faces (§3.5.2), and discusses some existing attempts to overcome these challenges (§3.5.3). The following section turns to Bejar and Rezac’s analysis.
3.5.1 Outline of Bruening’s analysis

Bruening’s (2001, 2005) analysis of theme signs addresses one of the major desiderata identified in the previous chapter (§2.7): the prominence of the object in inverse forms, as indicated by data from binding and cross-clausal agreement in certain Algonquian languages and by the agreement of the prefix with the object in inverse forms. All of these facts can be accounted for by A-movement of inverse objects to a position above the subject, as sketched in (6).

(6) A-movement in direct and inverse forms

```
<table>
<thead>
<tr>
<th>PREFIX</th>
<th>DERIVED A-POSITION</th>
</tr>
</thead>
<tbody>
<tr>
<td>DIR (-a-)</td>
<td>Agr 1_{SUBJ} 1_{OBJ}</td>
</tr>
<tr>
<td>INV (-ekw)</td>
<td>Agr 1_{OBJ} 3_{SUBJ} 3_{OBJ}</td>
</tr>
</tbody>
</table>
```

The desirability of such an analysis was first noted by Bruening, who proposed the formalization in (7). Three A-positions are identified: (1) complement of V, the base position of the object; (2) specifier of VoiceP, the base position of the subject; and (3) specifier of InflP, a derived position that attracts the subject in a direct form and the object in an inverse form.

(7) Bruening’s (2005) analysis of the direct-inverse contrast

```
a. DIRECT 1–3 (also 3–4): subject attracted to Spec-InflP  
b. INVERSE 3–1 (also 4–3): object attracted to Spec-InflP
```

In addition to accounting for the data from binding, cross-clausal agreement, and prefix agreement, Bruening’s analysis also provides a straightforward formalization of the traditional Algonquianist concept of the CENTRAL PARTICIPANT, a label that refers to the higher-ranked of the two arguments, which controls the agreement prefix regardless of whether it is a logical
subject or logical object (Goddard 1979b:38). The prominence of this grammatical function in Algonquian morphosyntax is at least equal to that of the more conventional grammatical functions of subject and object (e.g. Rhodes 1994; Wolvengrey 2011). A welcome result of Bruening’s analysis is that all three functions correspond to unique syntactic positions: the object is the complement of V₀, the subject is the specifier of VoiceP, and the central participant is the specifier of InfP.

### 3.5.2 Challenges for Bruening’s analysis

Despite the benefits of Bruening’s analysis, it faces certain challenges. One challenge was discussed in the previous chapter (§2.4.2): in some Algonquian languages, there is evidence that the inverse object does not raise above the subject, although there is not otherwise any difference in the patterning of the direct-inverse system. If A-movement is what drives the direct-inverse system, how is it possible for an Algonquian language to display a direct-inverse system even in the absence of A-movement? I will suggest an explanation for this variation in Chapter 4 (§4.3).

A more serious challenge to Bruening’s analysis involves the movement asymmetry in (7) above. The attraction of the subject to Inf₀ in the direct form in (7a) is unsurprising, since the subject is the closest nominal to Inf₀, but in the inverse form in (7b), why does Inf₀ target the more distant object rather than the closer subject? Bruening (2005:20) accounts for this by allowing the Voice₀ head, which introduces the subject, to “optionally be given a feature that will drive movement of the object to a second specifier of VoiceP.” As shown in (8), this [+EPP] feature is added in inverse forms but not in direct forms, thus causing the object to move to a higher specifier of VoiceP than the subject in inverse forms only. According to Bruening, this explains why Inf₀ attracts the object rather than the subject in such forms.

(8) Bruening’s (2005) analysis of VoiceP: optional EPP

<table>
<thead>
<tr>
<th>(a) DIRECT 1—3 (also 3—4):</th>
<th>(b) INVERSE 3—1 (also 4—3):</th>
</tr>
</thead>
<tbody>
<tr>
<td>no EPP on Voice₀, object in situ</td>
<td>EPP on Voice₀, object moves</td>
</tr>
</tbody>
</table>

[Diagram showing the movement asymmetry]
While this appears to be a simple analysis, it rests on two controversial assumptions about multiple-specifier constructions: first, that the [+EPP] feature triggers movement to the outer specifier of VoiceP, and second, that this outer specifier is closer to Infl$^0$ than the inner specifier is. An alternative to the first assumption is that “tucking-in” occurs in multiple-specifier constructions (Richards 1997), while an alternative to the second is that multiple specifiers are equidistant (e.g. Reinhart 1981; McGinnis 1995a; Ura 1996; Chomsky 1995:185, 2000; Hornstein 2009:43–44; see also discussion in §7.2.2).

These theoretical issues are minor, however, in comparison with a more serious flaw in Bruening’s proposal. Bruening (2005:20) states that the addition of the [+EPP] feature to Voice$^0$ is “optional”, and that “[i]f the feature is present, the clause ends up being inverse; if it is absent, direct.” However, the presence or absence of [+EPP] is not, in fact, optional at all: whenever the arguments are 3—1, 3—2, or 4—3, the [+EPP] feature must be present, since such forms are always inverse (theme sign -ekw); conversely, whenever the arguments are 1—3, 2—3, or 3—4, the [+EPP] feature must be absent, since such forms are always direct (theme sign -a·). There is thus no optionality in the occurrence of [+EPP]: it somehow occurs obligatorily in exactly those forms in which the object outranks the subject on the Person Hierarchy and cannot occur otherwise. Therefore, despite Bruening’s claim that his analysis “does not refer to a participant hierarchy in any way” (2005:24), such a hierarchy in fact implicitly underlies the occurrence of the [+EPP] feature. Since this feature is the crucial mechanism that drives the entire analysis, I must conclude that while the syntactic structures Bruening posits are desirable, his account provides no principled means of deriving them.

### 3.5.3 Attempts to remedy Bruening’s analysis

Attempts to motivate Bruening’s movement asymmetry have employed two different strategies: Point-of-View marking (§3.5.3.1) and the Person-Case Constraint (§3.5.3.2).

#### 3.5.3.1 POV marking as a source of inverse A-movement

In order to motivate the A-movement of inverse objects, Bliss (2005) builds on work by Speas and Tenny (2003) and Ritter and Wiltschko (2005) to propose that Bruening’s Infl$^0$ head, which attracts the subject in a direct form and the object in an inverse form, is in fact a Point-of-View head (POV$^0$) that probes for [uSentient, uParticipant]. Bliss’s analysis is sketched in (9). In a 3—1 form, the [uParticipant] sub-feature forces POV$^0$ to agree with the 1st-person object, with [EPP] triggering A-movement of the object above the subject as desired. In
a 4—3 form, neither argument is specified as [Participant], so the feature [uSentient] plays the deciding role. Crucially, Bliss assumes that obviative DPs are not specified for [Sentient], which means that agreement will correctly target the object in a 4—3 form as well.

(9)  Derivation of the A-movement of inverse objects in Bliss 2005

a. 3—1 (p. 55)

b. 4—3 (p. 69–70)

The analysis that I propose in Chapter 4 will share Bliss’s central insight that Bruening’s A-movement is triggered by agreement on a head higher than both arguments (Infl$^0$ for Bruening, POV$^0$ for Bliss). Some of the details of Bliss’s analysis, however, are problematic. The chief problem is the proposal that sentient proximate DPs are specified as [Sentient] while sentient obviative DPs are not. The unspecification of sentient obviative DPs for [Sentient] is at the heart of Bliss’s analysis, as it explains why the object rather than the subject is targeted for agreement in the 4—3 form in (9b), thus deriving Bruening’s inverse A-movement. However, this unspecification appears to be a stipulation: Bliss states only that it is “based on the observation that sentient DPs tend to attract proximate status” (p. 67), but such a tendency says nothing about whether or not a sentient obviative DP can be specified as [Sentient]. I must conclude that the absence of a [Sentient] feature on the subject in (9b) is an arbitrary stipulation that gets the right outcome but has no clear formal justification.

A second problem involves the identity of the triggering head as Point-of-View (POV$^0$). Since the movement in (9) is derived by the uninterpretable agreement features [uSentient, uParticipant], the role of Point-of-View in the derivation is unclear: the outcome would be exactly the same if POV$^0$ were instead a meaningless head X$^0$. Bliss proposes that the DP in Spec-POVP is adopted as the point-of-view holder for the clause, but since movement to this position is triggered by the unrelated agreement features [uSentient, uParticipant], it is unusual that its outcome should have the interpretable consequence of designating a point-of-view holder. Other discourse roles such as Topic and Focus are not designated simply as a
side-effect of landing in a particular specifier—instead, the relevant DP comes pre-specified with an interpretable [Topic] or [Focus] feature and movement to TopP or FocP follows as a consequence (e.g. Rizzi 1997; Aboh 2010:38). It is thus difficult to square Bliss’s analysis with the literature, since the movement Bliss posits is not triggered by a [POV] feature but nevertheless has the effect of designating a POV holder.

### 3.5.3.2 The PCC as a source of inverse A-movement

Anagnostopoulou (2005), Bianchi (2006), and Quinn (2006) take an entirely different approach, proposing that Bruening’s inverse object movement occurs in order to avoid violating the Person-Case Constraint (PCC), which disallows certain configurations in which a 3rd-person DP c-commands a 1st/2nd-person DP (Bonet 1991). The PCC is best-known in ditransitive constructions, in which it is invoked to account for the ungrammaticality of certain goal-theme combinations (e.g. French *je te lui ai présenté*, ‘I introduced you to her’; Bejar and Rezac 2003). In languages with such prototypical PCC configurations, Anagnostopoulou (2005) and Bianchi (2006) propose that there are two licensing domains in the clause: a higher domain that licenses the external argument and a lower domain that licenses an internal argument. PCC effects arise in ditransitives because two internal arguments (the goal and theme) compete for licensing in a single domain.

In order to extend the coverage of the PCC to the Algonquian direct-inverse system, Anagnostopoulou (2005), Bianchi (2006), and Quinn (2006) propose that in Algonquian, there is only one licensing domain: the entire clause. This predicts that the subject and object in Algonquian should compete for licensing just as the goal and theme do in a prototypical PCC configuration, with the PCC ruling out configurations in which a 3rd-person subject c-commands a 1st/2nd-person object. Bruening’s inverse object movement can then be understood as a strategy for avoiding the barred configuration, as sketched in (10).

(10) Inverse object movement motivated by PCC with clausal scope

```
   DIRECT 1—3 (satisfies PCC)
      \             /            / \\
    1_{SUBJ}    3_{OBJ}     3_{SUBJ}

   INVERSE 3—1 (3>1 violates PCC)
      \             /            / \\
    1_{OBJ}   (*PCC!)
   REPAIR:
      \            /            / \\
    1_{OBJ}    3_{SUBJ}  1_{OBJ}
```
However, Lochbihler (2012:113ff) provides a convincing argument against such an analysis. Lochbihler shows that in addition to the putative subject-object PCC in (10), Ojibwe also has a more conventional PCC that holds between the goal and theme of a ditransitive. As illustrated in (11), a 1st-person (or 2nd-person) goal can occur with a 3rd-person theme, but not vice versa. (The Ojibwe PCC pattern is reconstructed for Proto-Algonquian as well, as can be seen in the independent-order objective TA+O forms in the Appendix: forms exist for 1/2 goal and 3 theme, but not for 3 goal and 1/2 theme.)

(11) Ojibwe PCC in ditransitives (Lochbihler 2012:116–18)

a. PCC satisfied: 1st-person goal, 3rd-person theme

\[
\text{gi-gii-miin-i emkwaanes} \\
\text{2-PAST-give-1 spoon}
\]

‘You gave me a spoon.’

b. PCC violated: 3rd-person goal, 1st-person theme

\[
*\text{gi-gii-miin-aa niin} \\
*\text{2-PAST-give-3 me}
\]

‘*You gave him/her me.’

As Lochbihler (2012:133–35) points out, the existence of this prototypical goal-theme PCC effect undermines the proposal that Ojibwe is a language in which the PCC applies to the whole clause rather than just to the internal arguments. Since the PCC clearly does apply to the internal arguments in Ojibwe, the Ojibwe clause seems to contain a lower licensing domain after all, just as in a prototypical PCC language. If this lower domain exists, how can we claim that the inverse arises because the entire clause is a single licensing domain?

I add to Lochbihler’s argument the observation that in the ditransitive examples in (11), violation of the PCC results in ungrammaticality, which is the typical outcome of a PCC violation, but in the inverse-as-PCC proposal in (10), violation of the PCC instead results in movement. The putative clausal PCC that drives the Algonquian direct-inverse system thus displays different syntactic behaviour from the prototypical PCC that occurs in Algonquian ditransitives, which further weakens the case for regarding the inverse as a PCC effect.

I conclude that the goal-theme interaction identified by Lochbihler is the “true” Algonquian PCC effect. The direct-inverse system is reminiscent of the PCC in that it involves an interaction between the person features of two arguments, and it is no doubt relevant to the broader PCC-related literature. However, the direct-inverse system cannot be explained
simply by invoking the PCC, as we can already observe the PCC operating elsewhere in the grammar of Algonquian with quite different effects.

More generally, I conclude that while the syntactic structures proposed by Bruening (2001, 2005) are desirable, neither Bruening’s analysis nor the alternatives involving Point-of-View or the Person-Case Constraint have yet identified a satisfactory means of deriving these structures. It remains unexplained why the derived A-position, Bruening’s “Infl”, attracts the direct subject but the inverse object.

3.6 Cyclic Agree and the inverse: Bejar and Rezac 2009

The final analysis of the direct-inverse system that I will discuss is that of Bejar and Rezac (2009; henceforth B&R). While it is not B&R’s intent to remedy Bruening’s analysis—and indeed, the syntactic structures they assume are incompatible with it—B&R’s proposal nevertheless gives us the tools to explain Bruening’s movement asymmetry.

For the purposes of this thesis, B&R’s main proposal is that person features have internal structure (Harley and Ritter 2002; Bejar 2003). That is, rather than being atomic units such as [1], [2], or [3], person features are built from primitives such as [Person], [Participant], and [Addressee]. To capture the proximate-obviative distinction (notated as “3” vs. “4” in this thesis) the feature [Proximate] may be added to distinguish persons that are central to the discourse (1, 2, 3) from those that are peripheral (4) (Susana Béjar, p.c.; also Lochbihler 2012:36). The resulting geometry of person features is shown in (12).

(12) Person features of animate Algonquian nominals (B&R, Lochbihler 2012)

2 1 3 4

[Person] [Person] [Person] [Person]
[Proximate] [Proximate] [Proximate] [Proximate]
[Participant] [Participant]
[Addressee]

The geometries in (12) are not stipulated, as they follow from the entailment relations among the sub-features. For a 2nd-person nominal, for example, being an [Addressee] entails being a [Participant], which in turn entails being [Proximate].

An important result of the B&R feature specifications is that they effectively derive the Person Hierarchy. The central insight of the Person Hierarchy is that, for the purposes of
verb inflection, 1st and 3rd person stand in the same relationship as 3rd and 4th person: both pairs consist of a higher-ranked person followed by a lower-ranked person, and both are thus marked with the direct theme sign -a· rather than the inverse theme sign -ekw. B&R’s feature specifications capture this insight: in both the 1—3 and 3—4 pairs, the first argument has a more articulated person feature than the second. The B&R model thus replaces a stipulated hierarchical ranking of persons with a cline of featural complexity that retains the unity of the hierarchical approach but is derived from the entailment relations among sub-features.

B&R implement these feature specifications in a probe-goal model of agreement based on that of Chomsky (2000), in which a probe values its uninterpretable/unvalued features via agreement with a goal with matching features. Since person features have internal structure in B&R’s analysis, a person probe could in principle consist of any of the person specifications in (12), ranging from the “flat” probe [uPerson] to the fully-articulated probe [uPerson, uProximate, uParticipant, uAddressee]. Agreement always results in valuation of the person probe with the person feature values of the goal, regardless of the relative articulation of the probe and goal, as shown in (13).

(13) Agreement and valuation (B&R)

a. Less-articulated probe, more-articulated goal

<table>
<thead>
<tr>
<th>STEP 1: AGREE</th>
<th>STEP 2: VALUATION</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>PROBE</strong></td>
<td><strong>GOAL</strong></td>
</tr>
<tr>
<td>[ u\text{Person} ]</td>
<td>[ \text{Person} ] [ \text{Proximate} ] [ \text{Participant} ]</td>
</tr>
</tbody>
</table>

b. More-articulated probe, less-articulated goal

<table>
<thead>
<tr>
<th>STEP 1: AGREE</th>
<th>STEP 2: VALUATION</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>PROBE</strong></td>
<td><strong>GOAL</strong></td>
</tr>
<tr>
<td>[ u\text{Person} ; u\text{Proximate} ; u\text{Participant} ]</td>
<td>[ \text{Person} ]</td>
</tr>
</tbody>
</table>

If valuation is not sensitive to the articulation of the probe, what is accomplished by allowing the articulation of the probe to vary? B&R propose that in cases such as (13b), in which an articulated probe agrees with a less-articulated goal, the unvalued sub-features of the probe remain active and can agree with a second goal if one is accessible, as schematized in (14),
in which the \([u\text{Person}]\) sub-feature agrees with one goal and the leftover \([u\text{Proximate}]\) and \([u\text{Participant}]\) sub-features agree with a second, more articulated goal.

(14) “Leftover” sub-features agreeing with a second goal

\[
\begin{array}{c}
\text{PROBE} \\
[ u\text{Person} \\
  u\text{Proximate} \\
  u\text{Participant} ]
\end{array}
\begin{array}{c}
\text{GOAL 1} \\
[ \bullet\text{Person} ]
\end{array}
\begin{array}{c}
\text{GOAL 2} \\
[ \bullet\text{Proximate} \\
  \bullet\text{Participant} ]
\end{array}
\]

To account for the direct-inverse pattern in Algonquian (in particular, the Nishnaabe-mwin dialects of Ojibwe), B\&R propose that the \(v\) head bears an articulated probe, which I will represent as \([u\text{Person}, u\text{Proximate}, u\text{Participant}]\).\(^2\) The probe on \(v\) agrees with the object first, but if unvalued features remain, the probe may subsequently agree with the subject as well. The interaction of the articulated probe with the person features of the two arguments gives us a principled characterization of direct and inverse contexts. To see how this is the case, we can compare two prototypical direct contexts (1—3 and 3—4) with the corresponding inverse contexts. In the direct contexts, the person feature of the subject is more articulated than that of the object, so the articulated probe on \(v\) agrees with the subject in order to value sub-features that were left unvalued by the object, as shown in (15).

(15) DIRECT CONTEXT: subject more articulated than object

\[
\begin{array}{c}
\text{a. 1—3} \\
1_{\text{SUBJ}} \\
[ \text{Pers} ] \\
[ \text{Prox} ] \\
[ \bullet\text{Part} ] \\
\text{3}_{\text{OBJ}} \\
[ u\text{Pers} ] \\
[ u\text{Prox} ] \\
[ u\text{Part} ] \\
\text{b. 3—4} \\
3_{\text{SUBJ}} \\
[ \text{Pers} ] \\
[ \text{Prox} ] \\
[ \bullet\text{Part} ] \\
\text{4}_{\text{OBJ}} \\
[ u\text{Pers} ] \\
[ u\text{Prox} ] \\
[ u\text{Part} ]
\end{array}
\]

In the inverse contexts, on the other hand, the person feature of the object is more articulated than that of the subject. As shown in (16), the probe thus has no reason to agree with the subject, since it would not value any features that were not already valued by the object.

\(^2\)I have added the \([u\text{Proximate}]\) layer. B\&R also include a \([u\text{Addressee}]\) feature on the probe in order to capture the apparent direct-inverse pattern in the you-and-me forms. However, as discussed in the preceding chapter (§2.5.2.1), the justification for extending the direct-inverse distinction to such forms is questionable.
In short, direct contexts are those in which the subject is a better match for the articulated probe while inverse contexts are those in which the object is a better match. B&R’s analysis thus derives the difference between direct and inverse contexts from feature specifications alone, without invoking the Person Hierarchy. Importantly, however, the central insight of the hierarchy is retained: regardless of whether the persons involved are 1 and 3 or 3 and 4, all direct forms can be characterized in a unified way, as can all inverse forms.

While I will adopt B&R’s general approach to the direct-inverse system, I will not follow the technical details of their analysis. B&R propose that in inverse forms, like the ones in (16) above, a second probe is added to v in order to agree with and license the otherwise unlicensed subject; this “added probe” results in the spell-out of v as the inverse theme sign -ekw rather than its default spellout as the direct theme sign -a. This analysis raises several issues. Theoretically, the countercyclic addition of a probe to v in inverse contexts is unusual, although B&R do formulate this mechanism in a way that avoids the problem of look-ahead. A more serious problem involves the analytical desideratum for raising of the object in inverse forms, as identified by Bruening. In B&R’s analysis, such raising would presumably be triggered by an [epp] feature on v, as B&R briefly note (p. 68). However, since the “added probe” results in v agreeing with both arguments in both direct and inverse forms, restricting movement to the inverse object is less than straightforward. More serious still is the evidence that the theme signs other than inverse -ekw are in fact object agreement (§2.6.1), as well as the evidence from Cree that inverse -ekw occupies a higher syntactic position than the other theme signs (§2.6.2); both of these observations are incompatible with B&R’s proposal that the theme sign is always in v and agrees with both arguments. For these reasons, I do not adopt the details of B&R’s analysis, although my modified analysis will follow in its spirit.

Modifications to B&R’s analysis have also been proposed by Lochbihler (2012), who retains the interaction of the two arguments with an articulated probe on v but implements
it in a different theory of features and with different spell-out rules. Lochbihler draws a formal distinction between entailed features, whose dependent features have been agreed with, and unentailed features, whose dependent features have not been agreed with. This distinction, which is effectively formalized by marking each feature as [±entailed],\(^3\) is critical to the analysis, as Lochbihler proposes that the direct theme signs -a- and -i spell out unentailed checked features while the inverse theme signs -ekw and -eθ spell out entailed checked features. (Lochbihler regards the you-and-me theme signs -i and -eθ as direct and inverse, a view I argued against in §2.5.2.) Lochbihler’s spell-out rules for the independent order are shown in (17), with the Ojibwe morphemes replaced by their PA equivalents for consistency with the preceding discussion.

(17) Lochbihler’s (2012:53) spell-out of theme signs in the independent order

\[
\begin{align*}
    a. \, v \rightarrow -eθ & \quad \text{(inverse)} \quad \text{when [1] is entailed and checked} \\
    b. \, v \rightarrow -i & \quad \text{(direct)} \quad \text{when [1] is unentailed and checked and [3] is unchecked} \\
    c. \, v \rightarrow -ekw & \quad \text{(inverse)} \quad \text{when any feature is entailed and checked} \\
    d. \, v \rightarrow -a- & \quad \text{(direct)} \quad \text{elsewhere}
\end{align*}
\]

The unusual formal distinction between entailed and unentailed features aside, a more serious problem for Lochbihler’s analysis arises in the conjunct order, where, as we have seen (§2.5.2.2), the distribution of theme signs differs from the independent. Lochbihler acknowledges that the spell-out rule in (17) cannot account for the conjunct pattern and instead proposes that an entirely different spell-out rule applies in the conjunct, shown in (18).

(18) Lochbihler’s (2012:89) spell-out of theme signs in the conjunct order

\[
\begin{align*}
    a. \, v_{\text{CNJ}} \rightarrow -ekw & \quad \text{when [Person] is entailed and checked} \\
    b. \, v_{\text{CNJ}} \rightarrow -a- & \quad \text{when [3] is unentailed and checked} \\
    c. \, v_{\text{CNJ}} \rightarrow -i & \quad \text{when [1] is unentailed and checked} \\
    d. \, v_{\text{CNJ}} \rightarrow -eθ & \quad \text{when [2] is unentailed and checked}
\end{align*}
\]

By positing such different spell-out rules in the independent and conjunct, Lochbihler’s analysis effectively splits the theme signs into two separate systems governed by different principles. Since the spell-out rules in the two systems have entirely different conditioning, the fact that the same forms -a-, -ekw, -i, and -eθ occur in both systems becomes nothing more than a coincidence. Such a non-unified analysis could be justified if the behaviour of the

\(^3\)Lochbihler notates the entailed/unentailed distinction by typesetting unentailed features in an outline font and entailed features in a solid font. I will instead simply note whether a feature is entailed or unentailed.
theme signs in the independent and conjunct was truly irreconcilable, but in fact, we have seen that the theme signs follow exactly the same descriptive principle in both orders: the object-agreement theme signs -i (1OBJ), -eθ (2OBJ), and -a· (3/4OBJ) occur except when they are overridden by inverse -ekw. The only difference between the two orders is in the hierarchy governing the inverse, which is slightly flatter in the conjunct, as shown in (19).

(19) **Theme Sign Selection Rule** (from §2.7)

a. If the object outranks the subject on the relevant Person Hierarchy, T.S. $\leftrightarrow$ -ekw

i. CONJUNCT HIERARCHY: 1/2/3 > 4

ii. INDEPENDENT HIERARCHY: 1/2 > 3 > 4

b. Otherwise, T.S. $\leftrightarrow$ object agreement:

1st-person object $\leftrightarrow$ -i
2nd-person object $\leftrightarrow$ -eθ
3rd/4th-person object $\leftrightarrow$ -a·

An analysis must say something to account for the simplified hierarchy in the conjunct, but there is nevertheless a clear unity to the patterning of theme signs in all of their occurrences across both orders which Lochbihler’s analysis fails to capture.

### 3.7 Summary: Existing theoretical approaches to theme signs

Among the abundant theoretical approaches to the direct-inverse system that have been proposed, I consider the most significant analyses to be those of Bruening (2001, 2005) and Bejar and Rezac (2009). Bruening identifies what appears to be the correct structural configuration but has no way to derive it; conversely, Béjar and Rezac’s feature theory derives the direct-inverse contrast but does not straightforwardly produce the correct structural configuration. The analysis proposed in the following chapter will essentially marry Bruening’s structure with Bejar and Rezac’s feature theory in order to remedy the shortcomings of both.
This chapter presents an analysis of the Algonquian direct-inverse system that relies solely on probe-goal agreement and appeals neither to a special grammatical category of direction marking nor to a person hierarchy. In brief, the direct-inverse pattern is proposed to result from an interplay between two person-agreement probes: a lower probe on the Voice\(^0\) head, which agrees with the object and creates a configuration in which the subject and object are equidistant, and a higher probe on the Infl\(^0\) head, which agrees with whichever of the two equidistant arguments has a more fully-specified person feature. The lower head Voice\(^0\) is spelled out as the object-agreement theme signs -i (1OBJ), -eθ (2OBJ), and -a∙ (3OBJ), while the higher head Infl\(^0\) is spelled out as the inverse theme sign -ekw in those cases in which it agrees with the object rather than the subject. These spell-out rules apply consistently in both the independent and conjunct orders.

The chapter begins by mapping the inner portion of the Algonquian verb template to a proposed sequence of heads: Root–v\(^0\)–Voice\(^0\)–Infl\(^0\), with the object-agreement theme signs in Voice\(^0\) and the inverse theme sign in Infl\(^0\) (§4.1). The bulk of the chapter then develops an analysis of the Transitive Animate theme signs of Proto-Algonquian—that is, the canonical set of theme signs that appear when the subject and object of a transitive verb are both animate, as in all the examples presented thus far. Under the proposed analysis, the object-agreement theme signs probe for [uPerson] (§4.2) while the inverse theme sign carries Bejar and Rezac’s articulated probe (§4.3); the interaction of these probes derives the core direct-inverse pattern as well as the pattern exhibited by the you-and-me forms (§4.4). Furthermore, this analysis allows the difference in inverse marking between the independent and conjunct orders to be captured by a single microparameter: the presence or absence of a [uParticipant] feature on Infl\(^0\) (§4.5). With minimal additions, the analysis can also be extended to cover verb classes other than the canonical Transitive Animate class (§4.6).
4.1 Mapping the verb template to syntactic structure

To begin the analysis of theme signs, it is necessary to consider the syntactic structure of the inner portion of the Algonquian verb template. The innermost portion of the verb is the lexical STEM, which consists minimally of a lexical root plus a so-called FINAL, which marks the root as a verb and determines its transitivity, as illustrated in (1), as well as its aktionsart, as illustrated in (2) (Bloomfield 1946; Denny and Mailhot 1976; Denny 1978, 1984; Goddard 1990; Hirose 2003). These examples are Proto-Algonquian forms from Hewson’s (1993) dictionary; the stem is shown in brackets.

(1) Transitive and intransitive finals in Proto-Algonquian (cf. Hirose 2003:38)

   a. \([se\cdot k-esi]-wa\)  
      [scared-INTRANS]-3s  
      ‘s/he is scared’
   
   b. \([se\cdot k-ih]-e\cdot wa\)  
      [scared-TRANS]-3s—4  
      ‘s/he scares him/her’

(2) Stative and inchoative intransitive finals in Proto-Algonquian

   a. \([\acute{s}i\cdot w-an]-wi\)  
      [strong.taste-STAT]-0s  
      ‘it has a strong taste’
   
   b. \([\acute{s}i\cdot w-\acute{i}h\theta\acute{e}n]-wi\)  
      [strong.taste-INCH]-0s  
      ‘it gains a strong taste’

Stem structure can be much more complex than the simple root-final combinations shown here (see e.g. Goddard 1990; Brittain 2003; Branigan et al. 2005; Mathieu 2007, 2008; Slavin 2012), but since the primary concern of this thesis is inflection rather than derivation, the simple root-final template is sufficient.

Inflection is added to the stem according to the templates in (3) and (4). These are the reconstructed Proto-Algonquian templates (Bloomfield 1946; Goddard 1979b; Pentland 1999), which are largely applicable to the daughter languages as well. (For particularly full treatments of the morphology of the daughter languages, see Bloomfield 1962 for Menominee, Wolfart 1973 for Plains Cree, Goddard 1979b for Delaware, and Valentine 2001 for Ojibwe.) The conjunct-order template in (3) is simpler than the independent-order template in (4), which adds three additional morphemes: the prefix, formative, and outer agreement suffix. These additions aside, the sequence of morphemes is the same in the two templates. I have adjusted the spacing of the conjunct template to highlight this parallelism.
This chapter focuses on the closest suffix slot to the stem: the theme sign. We will begin by considering the syntactic structure of the stem + theme sign combination, which Algonquianists refer to as the THEME (Bloomfield 1946:98). In the previous chapter, I argued that the traditional “theme sign” slot in fact contains two distinct kinds of morphemes: OBJECT AGREEMENT theme signs (-i OBJ, -eθ 2OBJ, -a· 3/4OBJ) and the INVERSE theme sign (-ekw), which occur on opposite sides of the diminutive suffix in Plains Cree (§2.6). The template for the theme can thus be expanded as in (5).

(5) PA theme template (expanded)

```
STEM
Root + Final

INFLECTION
Object Theme Sign + (Plains Cree diminutive) + Inverse Theme Sign
```


(6) Syntactic structure of PA theme

```
Inv T.S.  
  
Obj T.S.  
  
Final  
  
Root
```

The position of the arguments in this structure can be diagnosed by considering their interactions with the theme signs. (For convenience, I will often refer to the external and internal
argument of a transitive verb as the subject and object.) The object-agreement theme sign is sensitive to the features of the object alone, while the inverse theme sign is sensitive to both arguments (§2.6). If we take this sensitivity to reflect agreement under c-command, as I will propose, we can conclude that the object-agreement theme sign c-commands only the object while the inverse theme sign c-commands both arguments, as in (7).

(7) Syntactic structure of PA theme and arguments

With the structural configuration established, let us now convert the descriptive labels in (7) into syntactic categories. Starting from the bottom, the Algonquianist root is roughly equivalent to the acategorial √ROOT of Distributed Morphology (e.g. Marantz 1995, Pesetsky 1995; applied to Algonquian by Brittain 2003, Hirose 2003, and Slavin 2012, among others). The final, which categorizes the root as a verb and carries aktionsart properties, is widely regarded as v₀, a category-defining light verb (Brittain 2003; Hirose 2003; Branigan et al. 2005; Piggott and Newell 2006; Mathieu 2007; Slavin 2012). Following Hirose (2003), I propose that v₀ also introduces the object as its specifier. Analyzing v₀ as an object-introducer explains why finals mark transitivity (as in the examples in (1) above): the distinction between transitive and intransitive finals is a morphological realization of the argument-introducing properties of the particular v₀ in question. This gives us the updated structure in (8).

(8) Syntactic structure of PA theme (with vP)

---

As mentioned above, the stem (in this structure, the vP) can be much more complex than the v+Root combination shown here; see Branigan et al. 2005 for a more complete model.
Next is the object-agreement theme sign, which has exactly the properties of Kratzer's (1996) agentive Voice\(^0\) head: it agrees with the internal argument and, from its position in the structure, appears to introduce the external argument. Although the labels Voice\(^0\) and v\(^0\) are sometimes used interchangeably in the literature, Algonquian requires both, as the verbalizing light verb (v\(^0\)) and the agentive light verb (Voice\(^0\)) are realized as distinct morphemes. This two-light-verb analysis was first proposed by Hirose (2003) for Plains Cree. While Hirose labels both light verbs as v\(^0\), I prefer to give the higher light verb the distinct label Voice\(^0\) for clarity. The updated structure is shown in (9); the dotted line indicates agreement.

(9) Syntactic structure of PA theme (with VoiceP)

\[
\begin{array}{c}
\text{Inv t.s.} \\
\text{VoiceP} \\
\text{SUBJ} \\
\text{Voice} \\
\text{vP} \\
\text{OBJ} \\
\end{array}
\]

The remaining head is the inverse theme sign, which I will propose hosts Bejar and Rezac's (2009) articulated probe and agrees with either the subject or the object depending on the relative status of their person features, thus establishing the direct-inverse agreement pattern. What is the categorial status of this head? Since the VoiceP has brought us to the edge of the thematic domain (in the sense of Grohmann 2003), the inverse theme sign appears to be located at the bottom of the inflectional domain, a position often occupied by Outer Aspect (Cinque 1999; Borer 2005; Travis 2010). This suggests a possible identification of the inverse theme sign as Asp\(^0\)—and, indeed, Bliss et al. (2010, in press) have proposed that the inverse theme sign is sometimes a person-based viewpoint aspect marker in Asp\(^0\). I have argued, however, that this analysis lacks justification (§3.4), as the form of the theme sign is always entirely predictable from the person features of the arguments and can thus be accounted for purely by person agreement. There is thus no need to posit an independent and typologically unusual system of interpretable person-based aspect marking when agreement alone is sufficient to do the job.

Given the absence of any identifiable semantic contribution for the inverse theme sign, I will follow Bruening in labeling the head in question simply as Infl\(^0\). Regardless of its categorial status, the only crucial properties of this head for the analysis that I will propose...
are that it lies between Voice\(^0\) and T\(^0\) (which are both realized by separate morphemes) and hosts an agreement probe. The resulting structure is shown in (10); the dotted lines originating from Infl\(^0\) indicate its sensitivity to the features of both arguments.

(10) Syntactic structure of PA theme (=InflP)

In summary, I have proposed that the theme of an Algonquian TA verb consists of three heads: (1) v\(^0\), the “final”, which categorizes the root as a verb, contributes aktionsart properties, and introduces the internal argument; (2) Voice\(^0\), the object-agreement theme sign, which agrees with the internal argument for person and introduces the external argument; and (3) Infl\(^0\), the inverse theme sign, which initiates the inflectional domain and agrees with either the subject or the object. The following sections show how the direct-inverse pattern arises from the agreement operations on Voice\(^0\) and Infl\(^0\).

### 4.2 Object-agreement theme signs (Voice)

The object-agreement theme sign (Voice\(^0\)) is spelled out as -i for 1st-person objects, -eθ for 2nd-person objects, and -a for 3rd/4th-person objects. (Its spell-out is overridden by the inverse theme sign -ekw, which will be discussed in the next section.) The analysis of Voice\(^0\) is straightforward: since it always agrees with the object for person, it hosts a [υPerson] probe—a “flat” probe, in Bejar and Rezac’s (2009) terms—which is valued by the person feature of the object, as illustrated in (11) for a 1st-person object.

---

2 Since the Infl\(^0\) head functions purely as an agreement marker, it could equally well be labelled as Agr\(^0\). I have chosen to retain Bruening’s label Infl\(^0\) to avoid confusion, as I will use the label “Agr” in Chapter 6 for the distinct purpose of referring to postsyntactically-generated agreement nodes.
The object-agreement theme sign (Voice) in a 1st-person-object form

The spell-out of Voice can be formalized by the rule in (12), which is conditioned by the person feature on Voice. I employ the person features proposed by Bejar and Rezac (§3.6).

(12) Spell-out of Voice (object person agreement)

Although the spell-out of Voice is straightforward, one question remains: does the agreement of Voice with the object trigger movement of the object to the specifier of Voice? That is, in Chomsky’s (2000) terms, does Voice have an [EPP] feature? Hirose (2003:110–11) proposes, effectively, that it does. Although Hirose does not employ the [EPP] formalization, he posits movement of the object to the outer specifier of Voice (his vP), as shown in (13).

(13) Movement of the object to Spec-VoiceP (Hirose 2003:110–11; my features added)

For Hirose, the object must move because Voice (his v2) agrees with the object for animacy, and in Hirose’s model, agreement always involves a specifier-head configuration. While I do not share Hirose’s assumptions—I consider theme signs to reflect full-fledged person agreement, not just animacy agreement, and I allow the possibility of non-spec-head agreement—I

\[3\] For simplicity, I omit the null prevocalic allomorph of -a (discussed in §2.6.3.2).
nevertheless concur with Hirose that the movement in (13) occurs. In fact, I will argue that this movement is absolutely crucial to Algonquian morphosyntax. I propose that the multiple-specifier configuration created by the \([\text{EPP}]\)-driven object movement in (13) renders the two arguments \textit{equidistant} with respect to all subsequent operations. (I thus assume equidistance of multiple specifiers, following Ura (1996), Chomsky (2000), and Hornstein (2009) but contra Chomsky (2001) and Hiraiwa (2001); see §7.2.2 for theoretical discussion.) This equidistance has a profound impact on all subsequent agreement operations. To see why this is the case, consider the diagram in (14), which shows the argument that each verbal suffix associates with.

\begin{align*}
\text{(14) Arguments associated with Proto-Algonquian suffixes} \quad \begin{array}{|c|c|c|c|c|c|}
\hline
\text{STEM} & \text{INFLECTIONAL SUFFIXES} \\
\text{Root + Final} & \text{Object Theme} & \text{Inverse} & \text{Formative} & \text{Inner Agr} & \text{Outer Agr} \\
(\nu^0) & \text{Sign (Voice}^0\text{)} & \text{Theme Sign} & \text{Agr} & \text{Agr} \\
\text{OBJ} & \text{OBJ} & \text{SUBJ OR OBJ} & \text{SUBJ OR OBJ} & \text{SUBJ OR OBJ} & \text{SUBJ OR OBJ} \\
\hline
\end{array}
\end{align*}

The conditioning of each agreement position is the topic of the remainder of this thesis, but for now, the crucial observation is that the two functional heads closest to the root are associated strictly with the object—\(\nu^0\) introduces the object and Voice\(^0\) agrees with it—but beyond Voice\(^0\), status as subject or object \textit{no longer plays a role in agreement}: each probe can agree with either the subject or the object, with factors other than locality determining which argument is selected. (One such factor is the relative richness of the person features of the two arguments, which, as we have seen, is at the heart of the direct-inverse system. Other factors include definiteness and, in some cases but not others, the Activity Condition.)

The pattern in (14) indicates that once the probe on Voice\(^0\) has selected its goal, locality ceases to govern Algonquian agreement and other less commonly-observed factors come to the fore. This observation follows if Hirose’s object movement, repeated in (15), creates a configuration in which the two arguments are equidistant and are thus equally good targets for subsequent agreement operations.
(15) Object movement to Spec-VoiceP (the two specifiers are equidistant)

![Diagram]

In summary, this section has proposed that the object-agreement theme sign occupies Voice⁰ and bears a flat [uPerson] probe that always agrees with the object as well as an [EPP] feature that triggers movement of the object to Spec-VoiceP, rendering the subject and object equidistant—a crucial ingredient of the Algonquian agreement pattern. It is worth noting that this proposal parallels an insight from the functionalist literature, in which it has been suggested that agreement morphology in a direct-inverse system is “symmetric, with no bias for subject or object,” and that “inverse morphology leads to morphological symmetry, and, as it seems, also to syntactic subject-object symmetry” (Wunderlich 2005). The subject-object equidistance proposed in (15) is effectively a formalization of this observation.

4.3 The inverse theme sign (Infl)

I proposed above (§4.1) that the inverse theme sign occurs in Infl⁰, the head above Voice⁰. In this section I will show how an articulated person probe on Infl⁰ can derive the shifting agreement pattern that characterizes the direct-inverse system. The core of this pattern is that the higher-ranked argument—that is, the argument with a more articulated person feature—controls the prefix and inner suffix agreement slots, regardless of whether the argument is the subject or the object. To account for this pattern, I will assume here that Infl⁰ hosts the articulated probe [uPerson, uProximate, uParticipant], as shown in (16). (The inclusion of a [uParticipant] sub-feature on this probe follows Bejar and Rezac (2009), but in Chapter 5, I will show that we can in fact do without this sub-feature, as its effects can be derived from independent factors. These factors will only become clear, however, once the analysis has reached a more advanced stage, so for now it is simplest to follow Bejar and Rezac. The overall shape of the analysis remains the same in either case.)
(16) Articulated probe on Infl$^0$ (cf. Bejar and Rezac 2009)

Which of the two arguments will the Infl-probe select as its goal? Since the two arguments are equidistant specifiers of VoiceP (as proposed above), they are both equally local to Infl$^0$, so locality constraints are irrelevant. In this situation, I propose that the probe agrees with whichever argument is a better match for its features. In a direct form, this argument is the subject, as schematized in (17a), while in an inverse form, it is the object, as in (17b). (Here I focus only on the independent-order pattern in the non-you-and-me forms. We will return to the you-and-me forms and the conjunct-order pattern below.)

(17) Infl$^0$ agrees with whichever argument has a more articulated person feature

a. **DIRECT FORMS**: subject has more articulated person feature

\begin{align*}
\text{1—3 (or 2—3)} & \quad 3—4 \\
\text{Infl}^0 & \quad 1_{\text{subj}} & 3_{\text{obj}} & \quad \text{Infl}^0 & \quad 3_{\text{subj}} & 4_{\text{obj}} \\
\begin{bmatrix} u\text{Pers} \\ u\text{Prox} \\ u\text{Part} \end{bmatrix} & \quad \begin{bmatrix} \text{Pers} \\ \text{Prox} \\ \text{Part} \end{bmatrix} & \quad \begin{bmatrix} \text{Pers} \end{bmatrix} & \quad \text{Infl}^0 & \quad \begin{bmatrix} u\text{Pers} \\ u\text{Prox} \\ u\text{Part} \end{bmatrix} & \quad \begin{bmatrix} \text{Pers} \\ \text{Prox} \end{bmatrix}
\end{align*}

b. **INVERSE FORMS**: object has more articulated person feature

\begin{align*}
\text{3—1 (or 3—2)} & \quad 4—3 \\
\text{Infl}^0 & \quad 3_{\text{subj}} & 1_{\text{obj}} & \quad \text{Infl}^0 & \quad 4_{\text{subj}} & 3_{\text{obj}} \\
\begin{bmatrix} u\text{Pers} \\ u\text{Prox} \\ u\text{Part} \end{bmatrix} & \quad \begin{bmatrix} \text{Pers} \\ \text{Prox} \\ \text{Part} \end{bmatrix} & \quad \begin{bmatrix} \text{Pers} \end{bmatrix} & \quad \text{Infl}^0 & \quad \begin{bmatrix} u\text{Pers} \\ u\text{Prox} \\ u\text{Part} \end{bmatrix} & \quad \begin{bmatrix} \text{Pers} \\ \text{Prox} \end{bmatrix}
\end{align*}
Note that the ability of Infl\(^0\) to target the object even though Voice\(^0\) already agreed with the object indicates that the Activity Condition can be violated in Algonquian, a possibility raised crosslinguistically by Baker (2008, 2013). See Chapter 6 (§6.5) for further discussion.

The shifting pattern of Infl-agreement in (17)—which is enabled by the equidistance created by Voice-agreement—is the core of my analysis of the direct-inverse system. It gives us the tools to account for the following three essential properties of the system (§2.7):

1. **Prefix/inner suffix agreement**: In a direct form, the prefix and inner suffix agree with the subject; in an inverse form, they agree with the object.

2. **Syntactic variation in the inverse**: In some languages (e.g. Passamaquoddy), the inverse object raises above the subject; in others (e.g. Plains Cree), it does not (§2.4.2).

3. **Complementary spell-out of theme signs**: When the inverse theme sign -ekw appears in Infl\(^0\), the object-agreement theme signs in Voice\(^0\) (-i, -eθ, -a-) are not spelled out.

To account for the pattern of prefix and inner suffix agreement, we may posit the updated Agreement Target Rule in (18), which effectively states that the prefix and inner suffix agree with whatever argument Infl\(^0\) agrees with (i.e. the direct subject and the inverse object).

(18) *Agreement Target Rule* (cf. §2.7)

The prefix and inner suffix share the phi-features of Infl\(^0\).

The nature of the dependency between Infl\(^0\) and the prefix and inner suffix is the topic of Chapter 6, where certain principled exceptions to the dependency (the so-called ABSOLUTE forms) will also be explained. For now, however, the Agreement Target Rule in (18) is sufficient to account for all of the data we have seen.

To account for the syntactic variation in the inverse, we can simply posit that Infl\(^0\) bears an [EPP] feature in some Algonquian languages but not others. In languages where the [EPP] is present, the argument that Infl\(^0\) agrees with will move to Spec-InflP, as in Passamaquoddy; in languages where the [EPP] is not present, the argument that Infl\(^0\) agrees with will remain in Spec-VoiceP, as in Plains Cree. This analysis is sketched in (19). (For simplicity I omit the person features of Infl\(^0\) and the arguments; see (17) above.)
Variation in the syntax of inverse objects (4—3 form; Infl\(^0\) agrees with 3OBJ)

a. **Passamaquoddy**
   - Infl\(^0\) has \([\text{EPP}]\); its 3OBJ goal raises to Spec-InflP (above the subject)

b. **Plains Cree**
   - Infl\(^0\) lacks \([\text{EPP}]\); its 3OBJ goal remains in Spec-VoiceP (equidistant with the subject)

This analysis attributes the pan-Algonquian variation in inverse object movement to a simple microparameter: the presence or absence of \([\text{EPP}]\) on Infl\(^0\). This microparametric approach differs from previous analyses, which require that the inverse object is either always above the subject (e.g. Rhodes 1976; Bruening 2005) or always below it (e.g. Lochbihler 2012). The rigidity of these approaches is at odds with the apparent variation in object movement across the family. This variation indicates that the syntactic position of the object is not, in fact, a central component of the direct-inverse system, but rather an optional add-on—a state of affairs that is captured by the microparametric agreement-based analysis proposed here.

The third property of the direct-inverse system is the **complementary spell-out of theme signs**. As we have seen, despite the evidence that the inverse theme sign (Infl\(^0\)) and the object-agreement theme sign (Voice\(^0\)) occupy different syntactic positions, only one or the other can be spelled out in a single form. In particular, whenever the inverse theme sign -\(\text{ekw}\) appears in Infl\(^0\), the object-agreement theme sign in Voice\(^0\) (-i 1OBJ, -\(e\theta\) 2OBJ, -a- 3/4OBJ) disappears. In the previous chapter, I argued that this complementarity is a purely morphological phenomenon that arose when a pre-existing rule of phonologically-conditioned allomorphy was morphologized (§2.6.3). All that remains, then, is to write a morphological spell-out rule that formalizes this complementarity.

In order to clarify the nature of the spell-out rule, it is useful to compare the arguments targeted by Voice\(^0\) and Infl\(^0\) in direct and inverse forms. As schematized in (20), Voice\(^0\) always targets the object, but Infl\(^0\) targets the subject in a direct form and the object in an inverse form. Inverse forms—where -\(\text{ekw}\) appears—are thus distinguished by the fact that Voice\(^0\) and Infl\(^0\) *both target the same argument*. 

---

(19) Variation in the syntax of inverse objects (4—3 form; Infl\(^0\) agrees with 3OBJ)

a. **Passamaquoddy**
   - Infl\(^0\) has \([\text{EPP}]\); its 3OBJ goal raises to Spec-InflP (above the subject)

b. **Plains Cree**
   - Infl\(^0\) lacks \([\text{EPP}]\); its 3OBJ goal remains in Spec-VoiceP (equidistant with the subject)
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(20) Agreement targets in direct (3—4) and inverse (4—3) forms
  a. DIRECT (3—4)                     b. INVERSE (4—3)
    Infl$^0$   Voice$^0$                Infl$^0$   Voice$^0$
    ↓          ↓
    3SUBJ      4OBJ                    4SUBJ      3OBJ

This observation gives us a way to characterize the appearance of the inverse theme sign -ekw in purely featural terms: -ekw appears in Infl$^0$ when Voice$^0$ and Infl$^0$ both have the same specification of person features—a condition that is always satisfied in inverse forms like (20b), where Voice$^0$ and Infl$^0$ are both 3rd-person, but never in direct forms like (20a), where Voice$^0$ is 4th-person and Infl$^0$ is 3rd-person. The spell-out rule for Infl$^0$ can thus be stated as in (21): Infl$^0$ is spelled out as -ekw when its person features match those of Voice$^0$.

(21) Spell-out rule for Infl$^0$

\[
\begin{align*}
\text{Infl}^0_{\alpha\text{Pers}} & \iff -ekw & / & \text{Voice}^0_{\alpha\text{Pers}} \\
& \iff \emptyset & / & \text{elsewhere}
\end{align*}
\]

Similarly, the spell-out rule for Voice$^0$ can be stated as in (22): Voice$^0$ is spelled out as object agreement except when its person features are matched by those of Infl$^0$.

(22) Spell-out rule for Voice$^0$

\[
\begin{align*}
\text{Voice}^0_{\alpha\text{Pers}} & \iff \emptyset & / & \text{Infl}^0_{\alpha\text{Pers}} & (= \text{inverse form}) \\
\text{Voice}^0_{\text{Pers, Prox, Part, Addr}} & \iff -e\theta & (= 2nd-person object) \\
\text{Voice}^0_{\text{Pers, Prox, Part}} & \iff -i & (= 1st-person object) \\
\text{Voice}^0_{\text{Pers}} & \iff -a & (= 3rd/4th-person object)
\end{align*}
\]

We have now arrived at a working model of the direct-inverse system in the independent order (except for the you-and-me forms, which are discussed below). To summarize the model, I will illustrate the derivations of the four core direct-inverse examples in (23).
(23) Core examples of the direct-inverse system (independent order)

a. **MIXED DIRECT FORM (1—3)**
   
   ```
   ne-wa-pam[\_a\_]-w-ena-n-aki
   1-see-DIR-PRES-1p-3p
   'we see them'
   ```

b. **NON-LOCAL DIRECT FORM (3—4)**
   
   ```
   we-wa-pam[\_a\_]-w-\_w-\_w-ari
   3-see-DIR-PRES-3p-4p
   'they see the others'
   ```

c. **MIXED INVERSE FORM (3—1)**
   
   ```
   ne-wa-pam[\_ek\_w]-w-ena-n-aki
   1-see-DIR-PRES-1p-3p
   'they see us'
   ```

d. **NON-LOCAL INVERSE FORM (4—3)**
   
   ```
   we-wa-pam[\_ek\_w]-w-\_w-\_w-ari
   3-see-DIR-PRES-3p-4p
   'the others see them'
   ```

First, the \[uPerson\] probe on Voice\(^0\) agrees with the object and the [EPP] feature of Voice\(^0\) causes the object to raise to Spec-VoiceP, which renders the object and subject equidistant.

(24) **Step 1: Object agreement on Voice\(^0\)**

a. **MIXED DIRECT FORM (1—3)**

   Voice\(^0\) agrees with 3_{obj}

b. **NON-LOCAL DIRECT FORM (3—4)**

   Voice\(^0\) agrees with 4_{obj}

c. **MIXED INVERSE FORM (3—1)**

   Voice\(^0\) agrees with 1_{obj}

d. **NON-LOCAL INVERSE FORM (4—3)**

   Voice\(^0\) agrees with 3_{obj}

Next, the \[uPerson, uProximate, uParticipant\] probe on Infl\(^0\) agrees with whichever of the equidistant arguments is a better match for its person feature, as shown in (25). The person feature that Infl\(^0\) gains in this agreement operation will be shared with the prefix and the inner suffix. In languages where Infl\(^0\) has an [EPP] feature, the target of Infl\(^0\) raises to Spec-InflP; otherwise, it remains in Spec-VoiceP.

(25) **Step 2: Person-sensitive agreement on Infl\(^0\)**

a. **MIXED DIRECT FORM (1—3)**

   Infl\(^0\) agrees with 1_{subj}
   
   (prefix and inner suffix index 1_{subj})

b. **NON-LOCAL DIRECT FORM (3—4)**

   Infl\(^0\) agrees with 3_{subj}
   
   (prefix and inner suffix index 3_{subj})

c. **MIXED INVERSE FORM (3—1)**

   Infl\(^0\) agrees with 1_{obj}
   
   (prefix and inner suffix index 1_{obj})

d. **NON-LOCAL INVERSE FORM (4—3)**

   Infl\(^0\) agrees with 3_{obj}
   
   (prefix and inner suffix index 3_{obj})
Spell-out of the theme signs is then governed by the complementary spell-out rules in (21) and (22) above. In forms where Infl\(^0\) agrees with the subject (i.e. the direct forms in (26a–b)), Infl\(^0\) is null and Voice\(^0\) is spelled out as one of the object-agreement theme signs. In forms where Infl\(^0\) agrees with the object, thus agreeing with the same argument that Voice\(^0\) did (i.e. the inverse forms in (26c–d)), Infl\(^0\) is spelled out as -ekw and Voice\(^0\) is not spelled out.

\begin{align*}
\text{(26) Step 3: Complementary spell-out of Voice\(^0\) and Infl\(^0\)}
\text{a. MIXED DIRECT FORM (1—3)} & \quad \text{b. NON-LOCAL DIRECT FORM (3—4)} \\
\text{Infl}^0 & \leftrightarrow \emptyset \\
\text{Voice}^0 & \leftrightarrow -a\cdot (3/4\text{pers}) \\
\text{c. MIXED INVERSE FORM (3—1)} & \quad \text{d. NON-LOCAL INVERSE FORM (4—3)} \\
\text{Infl}^0 & \leftrightarrow -ekw \\
\text{Voice}^0 & \leftrightarrow \emptyset
\end{align*}

4.4 Infl-agreement in you-and-me forms

The analysis proposed above accounts for the core direct-inverse pattern in the Transitive Animate independent-order paradigm, but one set of independent-order TA forms remains to be examined: the you-and-me forms (1—2 and 2—1). We saw in the previous chapter that these forms do not easily fit into the direct-inverse framework (§2.5.2.1). In addition to having special theme signs, the you-and-me forms also have a distinct pattern of prefix/inner suffix agreement. In all other TA forms, the prefix and inner suffix always act together to agree with the same argument—namely, the argument that Infl\(^0\) agreed with. In (27), for example, the prefix and inner suffix (underlined) both agree with the 1st-person subject.

\begin{align*}
\text{(27) } \underline{\text{ne-wa-pam-a-w-ena-n-aki}} \\
1\text{-see-DIR-PRES-1p-3p} \\
\text{‘we see them’}
\end{align*}

The you-and-me forms, however, are the one instance in which the prefix and inner suffix can agree with different arguments, as shown in (28). In (28a), the prefix agrees with the 2nd-person subject while the inner suffix agrees with the 1st-person object. In (28b), the prefix agrees with the 2nd-person object while the inner suffix agrees with the 1st-person subject.
(28) Divergence of the prefix and inner suffix in certain you-and-me forms

a. 2—1p  
\[ke-wa\text{-}pam\text{-}i\text{-}hm\text{-}ena\text{-}\theta\text{-}ehm\text{-}ena\text{-}\theta\]  
'you see us'

b. 1p—2  
\[ke-wa\text{-}pam\text{-}e\text{-}ehm\text{-}ena\text{-}\theta\]  
'we see you'

The divergence of the prefix and inner suffix in these you-and-me forms is problematic for a direct-inverse analysis (§2.5.2.1; Macaulay 2009). However, this divergence is not problematic for the agreement-based analysis developed in this thesis—in fact, the analysis predicts that it is exactly these forms in which divergence should be possible. This prediction arises from my proposal that the prefix and inner suffix agree with whichever argument the \([u\text{Pers}, u\text{Prox}, u\text{Part}]\) probe on Infl\textsuperscript{θ} agrees with (the Agreement Target Rule in (18)). In the core direct-inverse examples, there is always a featural asymmetry between the two equidistant arguments: one of the two arguments is always a better match for the Infl-probe and is thus selected as the probe’s goal, as shown in (29).

(29) Core direct-inverse examples: one argument always matches more features of Infl\textsuperscript{θ}

a. If arguments are 1 and 3, Infl\textsuperscript{θ} (and the prefix and inner suffix) will agree with 1

\[
\begin{array}{ccc}
\text{Infl}^{\theta} & 1 & 3 \\
\text{uPers} & \text{Pers} & \text{Pers} \\
\text{uProx} & \text{Prox} & \text{Prox} \\
\text{uPart} & \text{Part} & \\
\end{array}
\]

b. If arguments are 2 and 3, Infl\textsuperscript{θ} (and the prefix and inner suffix) will agree with 2

\[
\begin{array}{ccc}
\text{Infl}^{\theta} & 2 & 3 \\
\text{uPers} & \text{Pers} & \text{Pers} \\
\text{uProx} & \text{Prox} & \text{Prox} \\
\text{uPart} & \text{Part} & \text{Addr} \\
\end{array}
\]

c. If arguments are 3 and 4, Infl\textsuperscript{θ} (and the prefix and inner suffix) will agree with 3

\[
\begin{array}{ccc}
\text{Infl}^{\theta} & 3 & 4 \\
\text{uPers} & \text{Pers} & \text{Pers} \\
\text{uProx} & \text{Prox} & \\
\text{uPart} & \\
\end{array}
\]

\textsuperscript{4}These forms contain no outer suffix, so the inner suffix is word-final. An outer suffix can be added to these forms in ditransitive constructions (§4.6.5).
In the you-and-me forms, however, both of the equidistant arguments are specified as \([u\text{Pers}, u\text{Prox}, u\text{Part}]\), so both arguments are an equally good match for the \(\text{Infl}^0\)-probe. In this case, I propose that \(\text{Infl}^0\) agrees with both arguments, as shown in (30), thus gaining two bundles of person features rather than just one.

(30) You-and-me forms: \(\text{Infl}^0\) agrees with both equally-matching arguments

\[
\begin{array}{ccc}
\text{Infl}^0 & 1 & 2 \\
[u\text{Pers}] & \text{Pers} & \text{Pers} \\
u\text{Prox} & \text{Prox} & \text{Prox} \\
u\text{Part} & \text{Part} & \text{Addr} \\
\end{array}
\]

The you-and-me forms are therefore a special case in which \(\text{Infl}^0\) agrees with both arguments. Since the features of the prefix and inner suffix are dependent on those of \(\text{Infl}^0\), it follows that the prefix and inner suffix have access to the features of both arguments in the you-and-me forms only. The possibility for the prefix and inner suffix to diverge in the you-and-me forms is thus predicted by the analysis proposed here. (The details of the spell-out of the prefix and inner suffix are the topic of Chapter 6.)

This analysis of the you-and-me forms finds a close parallel in the work of Bruening (2005:22–23), who proposes that in a you-and-me form, both arguments move together to Spec-IP, a position that normally attracts only the higher-ranked argument. Bruening’s analysis is thus roughly equivalent to my proposal that \(\text{Infl}^0\) agrees with both arguments in a you-and-me form but only with the higher-ranked argument otherwise. However, in order to force both you-and-me arguments to move, Bruening must add a special stipulation requiring all [Participant] nominals to raise to Spec-IP for licensing, whereas in my analysis, the special treatment of you-and-me forms follows directly from the \([u\text{Pers}, u\text{Prox}, u\text{Part}]\) probe on \(\text{Infl}^0\) that is independently required to account for the core direct-inverse pattern.

In order to summarize the proposed analysis, I will sketch the derivation of the you-and-me forms that were shown in (28) above, repeated in (31).

(31) You-and-me forms

a. \(2—1p\) \\
\(ke-wa-pam-i-hm-ena\) \\
2-see-T.S.-PRES-\(1p\) \\
‘you see us’

b. \(1p—2\) \\
\(ke-wa-pam-\theta-ehm-ena\) \\
2-see-T.S.-PRES-\(1p\) \\
‘we see you’
First, the \[u\text{Person}\] probe on \(\text{Voice}^0\) agrees with the object and the \(\text{[EPP]}\) feature of \(\text{Voice}^0\) causes the object to raise to Spec-VoiceP, which renders the object and subject equidistant.

(32) Step 1: Object agreement on \(\text{Voice}^0\)

\[
\begin{align*}
\text{a. } & 2—1p & \text{b. } & 1p—2 \\
& \text{Voice}^0 \text{ agrees with } 1_{\text{obj}} & \text{Voice}^0 \text{ agrees with } 2_{\text{obj}}
\end{align*}
\]

Next, the \([u\text{Person, }u\text{Proximate, }u\text{Participant}]\) probe on Infl\(^0\) agrees with both of the equidistant arguments, as they are both equally good matches for its person feature. The person features that Infl\(^0\) gains in this agreement operation will be shared with the prefix and the inner suffix, thus giving the prefix and inner suffix access to the person features of both arguments. (For details on the realization of the prefix and inner suffix, see Chapter 6.)

(33) Step 2: Person-sensitive agreement on Infl\(^0\)

\[
\begin{align*}
\text{a. } & 2—1p & \text{b. } & 1p—2 \\
& \text{Infl}^0 \text{ agrees with } 2_{\text{subj}} \text{ and } 1_{\text{obj}} & \text{Infl}^0 \text{ agrees with } 1_{\text{subj}} \text{ and } 2_{\text{obj}} \\
& (\text{prefix & inner suffix index both arg’ts}) & (\text{prefix & inner suffix index both arg’ts})
\end{align*}
\]

Spell-out of the theme signs is then governed by the complementary spell-out rules in (21) and (22) above. The rule for Infl\(^0\) states that \(-ekw\) is spelled out when Infl\(^0\) and Voice\(^0\) both have the same set of person features. In the you-and-me forms, this will never be the case, as Voice\(^0\) has only one person feature bundle (that of the object) while Infl\(^0\) has two (those of the object and subject), thus guaranteeing that the feature sets of Voice\(^0\) and Infl\(^0\) will always differ. The spell-out rule therefore correctly predicts that the inverse theme sign \(-ekw\) will not appear in the you-and-me forms. This leaves the way clear for the object-agreement theme signs in Voice\(^0\) to be spelled out instead.

(34) Step 3: Complementary spell-out of Voice\(^0\) and Infl\(^0\)

\[
\begin{align*}
\text{a. } & 2—1p & \text{b. } & 1p—2 \\
& \text{Infl}^0 \leftrightarrow \varnothing & \text{Infl}^0 \leftrightarrow \varnothing \\
& \text{Voice}^0 \leftrightarrow -i \ (1\text{pers}) & \text{Voice}^0 \leftrightarrow -e\varnothing \ (2\text{pers})
\end{align*}
\]
4.5 Comparing inverse marking in the independent and conjunct

The analysis developed to this point accounts for the patterning of TA theme signs in the independent order. However, as we saw in Chapter 2 (§2.5.2.2), the patterning of theme signs in the conjunct order is different: the inverse theme sign -ekw occurs in fewer contexts, thus allowing the object-agreement theme sign to appear more often. The selection of theme signs in the two orders is compared in (35); the discrepant portion of the paradigm is outlined.

(35) Proto-Algonquian TA theme signs (independent and conjunct order)

<table>
<thead>
<tr>
<th></th>
<th>INDEPENDENT</th>
<th>CONJUNCT</th>
</tr>
</thead>
<tbody>
<tr>
<td>NON-LOCAL</td>
<td>3—4 -a· (3/4OBJ)</td>
<td>-a· (3/4OBJ)</td>
</tr>
<tr>
<td></td>
<td>4—3 -ekw (INV)</td>
<td>-ekw (INV)</td>
</tr>
<tr>
<td>YOU-AND-ME</td>
<td>2—1 -i (1OBJ)</td>
<td>-i (1OBJ)</td>
</tr>
<tr>
<td></td>
<td>1—2 -eθ (2OBJ)</td>
<td>-eθ (2OBJ)</td>
</tr>
<tr>
<td>MIXED</td>
<td>2—3 -a· (3/4OBJ)</td>
<td>-a· (3/4OBJ)</td>
</tr>
<tr>
<td></td>
<td>1—3 -a· (3/4OBJ)</td>
<td>-a· (3/4OBJ)</td>
</tr>
<tr>
<td>MIXED</td>
<td>3—1 -ekw (INV)</td>
<td>-i (1OBJ)</td>
</tr>
<tr>
<td></td>
<td>3—2 -ekw (INV)</td>
<td>-eθ (2OBJ)</td>
</tr>
</tbody>
</table>

The difference between the two orders lies in the mixed forms with 1st/2nd-person objects. In the independent, these forms take the inverse theme sign -ekw, while in the conjunct, they take the object-agreement theme signs -i (1OBJ) and -eθ (2OBJ).

In order to understand how this difference could arise, consider the syntactic context that conditions -ekw: it occurs in forms where the object, rather than the subject, is a better match for the probe on Infl. The independent-order 3—1 and 3—2 forms thus qualify as inverse, since the [Participant] feature on the 1st/2nd-person object makes it a better match for the [uPerson, uProximate, uParticipant] probe on Infl.

Why, then, is the same not true in the conjunct order? If the inverse theme sign continues to occur when the object is a better match for Infl than the subject is, there are two possible reasons why the conjunct-order 3—1 and 3—2 forms would not qualify as inverse: either (1) 1st/2nd-person arguments do not have a [Participant] feature in conjunct contexts, thus removing their “advantage” over the 3rd-person subject, or (2) Infl does not probe for [uParticipant] in conjunct contexts, thus making the 3rd-person subject and the 1st-/2nd-person object equally good matches.
The first possibility—non-specification of [Participant] on 1st/2nd-person arguments in the conjunct—cannot be correct: since the relevant conjunct forms contain the 1st/2nd-person theme signs -i and -eθ, the [Participant] feature must be present. Instead, I propose that the second possibility is responsible for the difference in inverse marking in the two orders: in the independent order, Infl⁰ probes for [uPerson, uProximate, uParticipant], while in the conjunct order, Infl⁰ probes only for [uPerson, uProximate]. A 3—1 or 3—2 form will thus be inverse in the independent, as the 1st/2nd-person object is a better match for Infl⁰ than the subject is (illustrated in (36a)), but not in the conjunct, where both arguments are an equally good match for Infl⁰ (illustrated in (36b)).

(36) Status of 3—1 form in independent and conjunct

a. INDEPENDENT

\[
\begin{array}{cccc}
\text{Infl}^0 & 3_{\text{subj}} & 1_{\text{obj}} & \text{Voice}^0 \\
[u\text{Pers}] & [u\text{Prox}] & [\text{Pers}] & [\text{Pers}] \\
u\text{Part} & & \text{Prox} & \text{Prox} \\
\end{array}
\]

Features of \text{Infl}^0 = \text{Voice}^0; inverse theme sign appears

b. CONJUNCT

\[
\begin{array}{cccc}
\text{Infl}^0 & 3_{\text{subj}} & 1_{\text{obj}} & \text{Voice}^0 \\
[u\text{Pers}] & [u\text{Prox}] & [\text{Pers}] & [u\text{Pers}] \\
\end{array}
\]

Features of \text{Infl}^0 \neq \text{Voice}^0; object-agreement theme sign appears

Under this analysis, then, the difference in the patterning of the direct/inverse system between the independent and conjunct orders follows from a single microparameter: the presence or absence of a [uParticipant] feature on Infl⁰. Aside from this microparameter, the remainder of the analysis, including the syntactic structures and the spell-out rules, remains exactly the same for both orders. (I will revisit the proposed [uParticipant] microparameter in Chapter 5, however, where I will show that an alternative [uD] microparameter allows the coverage of the analysis to be extended even further and enables a more satisfying account of the diachronic relationship between the conjunct and independent orders. For the time being, however, the [uParticipant] microparameter—a natural extension of the analysis developed by Bejar and Rezac (2009)—is sufficient to account for the data.)

The proposed analysis of TA theme signs is summarized in (37) for the full set of forms in (35) above. For each form, the table identifies the arguments targeted by the probes on Voice⁰ and Infl⁰. A box is drawn around the forms in which Voice⁰ and Infl⁰ have identical person feature bundles; these are the forms in which the inverse theme sign -ekw appears. Otherwise, the object-agreement theme signs appear instead.
(37) Analysis of Proto-Algonquian TA theme signs

a. Independent order

<table>
<thead>
<tr>
<th>Target of Voice(^0) (always object)</th>
<th>Best match for Infl(^0) [uPers, uProx, uPart]</th>
<th>Theme sign</th>
</tr>
</thead>
<tbody>
<tr>
<td>3—4 4obj</td>
<td>3subj</td>
<td>-a· (3/4OBJ)</td>
</tr>
<tr>
<td>4—3 3obj</td>
<td>3obj</td>
<td>INV -ekw</td>
</tr>
<tr>
<td>2—1 1obj</td>
<td>both</td>
<td>-i (1OBJ)</td>
</tr>
<tr>
<td>1—2 2obj</td>
<td>both</td>
<td>-eθ (2OBJ)</td>
</tr>
<tr>
<td>2—3 3obj</td>
<td>2subj</td>
<td>-a· (3/4OBJ)</td>
</tr>
<tr>
<td>1—3 3obj</td>
<td>1subj</td>
<td>-a· (3/4OBJ)</td>
</tr>
<tr>
<td>3—1 1obj</td>
<td>1obj</td>
<td>INV -ekw</td>
</tr>
<tr>
<td>3—2 2obj</td>
<td>2obj</td>
<td>INV -ekw</td>
</tr>
</tbody>
</table>

b. Conjunct order

<table>
<thead>
<tr>
<th>Target of Voice(^0) (always object)</th>
<th>Best match for Infl(^0) [uPers, uProx]</th>
<th>Theme sign</th>
</tr>
</thead>
<tbody>
<tr>
<td>3—4 4obj</td>
<td>(same as independent order)</td>
<td>-a· (3/4OBJ)</td>
</tr>
<tr>
<td>4—3 (same as independent order)</td>
<td>INV -ekw</td>
<td></td>
</tr>
<tr>
<td>2—1 (same as independent order)</td>
<td>-i (1OBJ)</td>
<td></td>
</tr>
<tr>
<td>1—2 (same as independent order)</td>
<td>-eθ (2OBJ)</td>
<td></td>
</tr>
<tr>
<td>2—3 (same as independent order)</td>
<td>-a· (3/4OBJ)</td>
<td></td>
</tr>
<tr>
<td>1—3 (same as independent order)</td>
<td>-a· (3/4OBJ)</td>
<td></td>
</tr>
<tr>
<td>3—1 1obj</td>
<td>both</td>
<td>-i (1OBJ)</td>
</tr>
<tr>
<td>3—2 2obj</td>
<td>both</td>
<td>-eθ (2OBJ)</td>
</tr>
</tbody>
</table>

4.6 Theme signs in other verb classes

This section extends the analysis of theme signs to other verb classes. The preceding discussion has focused on theme signs in the core Transitive Animate (TA) paradigm—that is, the inflection that appears when the verb has two arguments that are both animate. Forms also exist for transitive verbs that take an inanimate object (§4.6.1) or an inanimate subject (§4.6.2). There are, naturally, intransitive verbs as well (§4.6.3), along with a class of “pseudotransitive” verbs that inflect like intransitives but take an object (§4.6.4). Finally, there is also
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a class of ditransitive verbs (§4.6.5). With minimal modifications, the analysis proposed above accounts for the behaviour of theme signs in nearly all of these classes. The only exception involves a subset of the forms that occur when a transitive verb has an inanimate subject (§4.6.2). These forms will be left as an unresolved problem in this chapter, but will be addressed in Chapter 5.

4.6.1 Transitive verbs with inanimate objects (TI verbs)

This section examines the “Transitive Inanimate” (TI) morphology that occurs when a transitive verb takes an inanimate object. To account for the patterning of TI forms, I will propose, following Lochbihler (2012), that inanimate nominals in Algonquian lack a [Person] feature. The special theme sign -am that occurs in TI forms can then be analyzed as reflecting the lack of person agreement with the inanimate object.

As background, observe that Algonquian languages make a grammatical distinction between animate and inanimate nouns. This distinction is readily apparent in noun inflection, where different number-marking suffixes appear in the two genders: animate nouns take the suffixes -a (sg) and -aki (pl) while inanimate nouns take -i (sg) and -ari (pl), as shown in (38).

I adopt the convention employed by many Algonquianists in which inanimate nouns are labelled as “0” in contrast with the “3” used for proximate animate nouns and the “3′” or “4” used for obviative animate nouns (e.g. Hockett 1948b:8; Wolfart 1973:13).

(38) Proto-Algonquian nominal number suffixes

<table>
<thead>
<tr>
<th>SINGULAR</th>
<th>PLURAL</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>ANIMATE (3)</strong></td>
<td><strong>INanimate (0)</strong></td>
</tr>
<tr>
<td>eθkwe-w-a</td>
<td>wi-kiwa-hm-i</td>
</tr>
<tr>
<td>woman-3s</td>
<td>house-0s</td>
</tr>
<tr>
<td>eθkwe-w-aki</td>
<td>wi-kiwa-hm-ari</td>
</tr>
<tr>
<td>woman-3p</td>
<td>houses-0p</td>
</tr>
</tbody>
</table>

Beyond its manifestation on the noun itself, the animacy distinction also has an effect on verb inflection: when a transitive verb takes an inanimate object, a special theme sign occurs. This theme sign appears as -am throughout the conjunct order and as the allomorphs -am, -e∙, and -a∙ in the independent order (Goddard 2007:245–6); for brevity, I will refer to it simply as -am in the following discussion.5 Algonquianists refer to forms involving -am as

---

5The -am∼-e∼-a theme sign is in fact known as the “TI(1)” theme sign. In addition to the large TI(1) class, there are also two smaller classes: the TI(2) verbs, which take a theme sign -aw, and the TI(3) verbs, which take no theme sign (Pentland 1999; Goddard 2007). I consider only the TI(1) class in this thesis.
the Transitive Inanimate (TI) verb class. Many TA verbs thus have a corresponding TI form, as illustrated in (39) for the verb stems *saken-* ‘hold’ and *kexke-rem-* ‘know’ (which has the allomorph *kexke- rent-* before the TI theme sign).

(39) Correspondence of TA and TI verb forms (conjunct forms shown)

<table>
<thead>
<tr>
<th>TA 21p—3s form</th>
<th>TI 21p—0 form</th>
</tr>
</thead>
<tbody>
<tr>
<td>(theme sign <em>-a∙3OBJ</em>)⁶</td>
<td>(theme sign <em>-am</em>)</td>
</tr>
<tr>
<td><em>saken-</em> [-(-a-)] -ankw -e∙</td>
<td><em>saken-</em> [-am] -ankw -e∙</td>
</tr>
<tr>
<td>hold- -3OBJ -21p -sjv</td>
<td>hold- -TI -21p -sjv</td>
</tr>
<tr>
<td>‘if we (incl.) hold him/her’</td>
<td>‘if we (incl.) hold it’</td>
</tr>
<tr>
<td><em>kexke-rem-</em> [-(-a-)] -ankw -e∙</td>
<td><em>kexke-rem-</em> [-am] -ankw -e∙</td>
</tr>
<tr>
<td>know.TA- -3OBJ -21p -sjv</td>
<td>know.TI- -TI -21p -sjv</td>
</tr>
<tr>
<td>‘if we (incl.) know him/her’</td>
<td>‘if we (incl.) know it’</td>
</tr>
</tbody>
</table>

As a new addition to our set of theme signs, TI *-am* raises two basic questions: first, which of the two structural positions for theme signs (Voice⁰ or Infl⁰) does it occupy, and second, how is its spell-out conditioned?

We can determine the structural position of *-am* by employing a diagnostic from Plains Cree. In Chapter 2, we saw that the Plains Cree diminutive suffix allows Voice⁰ and Infl⁰ to be distinguished: the object-agreement theme signs in Voice⁰ precede the diminutive suffix while the inverse theme sign in Infl⁰ follows it (§2.6.2), as represented schematically in (40a–b). If we consult Plains Cree once again, we see that the TI theme sign precedes the diminutive suffix (Wolfart 1973:61), as represented in (40c), thus patterning with the object-agreement theme signs in Voice⁰ rather than with the inverse theme sign in Infl⁰. I therefore conclude that the TI theme sign occurs in Voice⁰.

(40) Theme signs and the diminutive suffix in Plains Cree (shown using PA morphemes)

<table>
<thead>
<tr>
<th></th>
<th>Voice⁰</th>
<th>DIM</th>
<th>Infl⁰</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Object-agreement theme signs</td>
<td>STEM + <em>-i/-eθ/-a</em></td>
<td>+ <em>ehsi</em></td>
<td></td>
</tr>
<tr>
<td>b. Inverse theme sign <em>-ekw</em></td>
<td>STEM +</td>
<td>+ <em>ehsi</em> + <em>ekw</em></td>
<td></td>
</tr>
<tr>
<td>c. TI theme sign <em>-am</em></td>
<td>STEM +</td>
<td><em>-am</em></td>
<td>+ <em>ehsi</em></td>
</tr>
</tbody>
</table>

⁶In the TA conjunct forms shown here, the direct (i.e. *3OBJ*) theme sign in fact surfaces as Ø rather than the usual *-a* due to the following vowel-initial suffix, as discussed in §2.6.3.2. My placement of the theme sign in parentheses is intended to represent the occurrence of its null allomorph.
Plains Cree TI diminutive form (Wolfart 1973:61)

\( ni\- ca\-sowah- [\text{a}]\- isi\- n \)

\( 1\- \text{cross-} \-TI\- \text{DIM}\- 1 \)

‘I crossed it.’

As for the spell-out of \(-am\), its conditioning depends on the featural representation that we assume for inanimate nominals. I will follow Lochbihler (2012) in assuming that inanimates in Algonquian are distinguished from animates by the absence of the \([\text{Person}]\) feature, as shown in (42). As Lochbihler (2012:38) observes, this is effectively a modification of the commonly-held view that third person is non-person (e.g. Benveniste 1966): in Algonquian, where person plays an elaborate role in the grammar, only a subset of third persons—the inanimates—are non-persons. (This “non-person” analysis of inanimates fits well with the traditional Algonquianist notation of inanimates as the “0th person”.)

(42) Person features of Algonquian nominals (updated from (12))

\[
\begin{array}{cccccc}
2 & 1 & 3 & 4 & 0 \\
\hline
[\text{Person}] & [\text{Person}] & [\text{Person}] & [\text{Person}] & \\
[\text{Proximate}] & [\text{Proximate}] & [\text{Proximate}] & \\
[\text{Participant}] & [\text{Participant}] & \\
[\text{Addressee}] & \\
\end{array}
\]

With this assumption in place, we can identify the conditioning of \(-am\) by comparing the Voice\(^0\) cycle in a TA form and a TI form. In the TA form in (43a), the \([u\text{Person}]\) probe agrees with the animate object and the \([\text{EPP}]\) feature is satisfied by movement of the object to Spec-VoiceP. In the TI form in (43b), on the other hand, the \([u\text{Person}]\) probe cannot agree with the inanimate object, since, as proposed above, the object has no person feature. (The \([u\text{Person}]\) probe thus completely fails to agree in this form; I assume, following Preminger (2010), that failed agreement does not crash the derivation.) Despite the lack of agreement, I propose that movement of the inanimate object to Spec-VoiceP still occurs in order to satisfy the \([\text{EPP}]\) feature on Voice\(^0\). (I thus assume that agreement and the EPP are independent of each other, as proposed by Hiraiwa (2001) and Bowers (2002).) The TI form now differs from the TA form in that \([\text{EPP}]\) satisfaction occurs but person agreement does not.
(43) Derivation of VoiceP in TA and TI forms

a. TA (1—3): AGREE and EPP

Given this analysis, the spell-out rule for Voice$^0$ can be amended to add the spell-out -am in cases where the [EPP] has been satisfied but Voice$^0$ has no person features, as shown in (44); the notation “[EPP]” indicates a satisfied [EPP] feature. (It may appear at this point that -am is simply the elsewhere form, but in the discussion of intransitive verbs in the following section, we will see that the elsewhere form is in fact null.)

(44) Spell-out rule for Voice$^0$ (extended from (22))

Informally, then, we can understand the appearance of the TI theme sign -am as indicating that the verb has entered into a relation with a “defective” object, one that cannot satisfy the verb’s requirement for object person agreement (cf. Piggott 1989). The identification of this defective relation between Voice$^0$ and the inanimate object implies that the inanimate object is slightly less than a full-fledged direct object—a conclusion that echoes Quinn’s (2006) proposal that the TI form is in fact an antipassive (and, thus, that the TI object is not a direct object at all). I will not go as far as Quinn, however, as I feel that the antipassive label is best reserved for the “pseudo-transitive” verb form discussed below (§4.6.4).
4.6.2 Transitive verbs with inanimate subjects

The TI forms discussed in the preceding section occur when the subject is animate and the object is inanimate. A special set of forms also exists for the converse situation, in which the subject is inanimate and the object is animate, as in the Ojibwe example *nwaabmigon* ‘it (e.g. a camera) sees me’. Notionally, such forms could be thought of as “inverse TI” forms, but they in fact pattern morphologically with the TA forms instead, as they take TA finals and theme signs. The reason for this shared patterning is the animate object, which results in Voice\(^0\) agreeing for person with the object just as it does in the regular TA forms. The agreement system is thus initiated in exactly the same way in both sets of forms, as indicated in (45); the TI forms differ in that Voice\(^0\) does not agree with the object.

(45) Kinship of the inanimate subject forms with regular TA forms

<table>
<thead>
<tr>
<th>VERB CLASS</th>
<th>SUBJECT</th>
<th>OBJECT</th>
</tr>
</thead>
<tbody>
<tr>
<td>TA forms</td>
<td>animate</td>
<td>Voice(^0) [uPers] animate</td>
</tr>
<tr>
<td>Inanimate subject forms</td>
<td>inanimate</td>
<td>Voice(^0) [uPers] animate</td>
</tr>
<tr>
<td>TI forms</td>
<td>animate</td>
<td>Voice(^0) [uPers] inanimate</td>
</tr>
</tbody>
</table>

Since the inanimate subject forms pattern morphologically with TA verbs, they are classified by Algonquianists as a special subset of TA forms known as the TA INANIMATE ACTOR forms. As is the case for the regular TA forms, the patterning of theme signs in the inanimate actor forms differs in the independent and conjunct orders. I thus examine each order in turn.

4.6.2.1 TA inanimate actor forms in the independent order

The independent-order inanimate actor paradigm is shown in (46). The salient property of this paradigm is that it is *uniformly inverse*: the theme sign -ekw appears throughout.
The uniformly inverse status of this paradigm follows directly from two proposals made above. The first relevant proposal is that inanimate nominals in Algonquian lack a person feature (§4.6.1); the inanimate subject in the forms in (46) is thus personless. The second relevant proposal is that the inverse themesign appears whenever the object is a better match than the subject for the person probe on Iná₀ (§4.3). Since the inanimate subject in these forms is personless, the animate object will always be a better match for the person probe on Iná₀. It thus follows that all of the forms are inverse.

4.6.2.2 TA inanimate actor forms in the conjunct order

Given the above, we might expect the inanimate actor paradigm to display the same uniform inverse pattern in the conjunct as it does in the independent. Although I have suggested that the person probe on Infl₀ is less articulated in the conjunct (§4.5), it still probes for [uPers, uProx] and should thus still prefer the personful animate object over the personless inanimate subject. However, this expectation is not met: as shown in (47), the conjunct inanimate actor paradigm is not uniformly inverse. The 0—3 form is inverse, but the 0—1 and 0—2 forms instead contain the object-agreement theme signs -i (1OBJ) and -eθ (2OBJ).
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(47) TA conjunct inanimate-actor forms (Goddard 1979a:88)

<table>
<thead>
<tr>
<th>STEM see (TA)</th>
<th>T.S.</th>
<th>AGR</th>
<th>MODE</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>0—1s</td>
<td>-i 1obj</td>
<td>-k 0</td>
<td>-e- sjv</td>
<td>‘if it sees me’</td>
</tr>
<tr>
<td>0—1p</td>
<td>-iy 1obj</td>
<td>-amenk 0—1p</td>
<td>-e- sjv</td>
<td>‘if it sees us (excl.)’</td>
</tr>
<tr>
<td>0—21p</td>
<td>-eθ 2obj</td>
<td>-ankw 21p</td>
<td>-e- sjv</td>
<td>‘if it sees us (incl.)’</td>
</tr>
<tr>
<td>0—2s</td>
<td>-eθ 2obj</td>
<td>-k 0</td>
<td>-e- sjv</td>
<td>‘if it sees you (sg.)’</td>
</tr>
<tr>
<td>0—2p</td>
<td>-eθ 2obj</td>
<td>-a-kw 0—2p</td>
<td>-e- sjv</td>
<td>‘if it sees you (pl.)’</td>
</tr>
<tr>
<td>0—3s</td>
<td>-ekw INV</td>
<td>-et 3</td>
<td>-e- sjv</td>
<td>‘if it sees him/her’</td>
</tr>
</tbody>
</table>

The patterning of theme signs in (47) cannot be accounted for under my analysis, which requires the person probe on Inflθ to prefer the personful animate object throughout, thereby incorrectly predicting the inverse theme sign -ekw in all forms rather than just the 3rd-person object form. My analysis is thus deficient in this respect.

A clue to the deficiency of my analysis comes from a parallel to the surprising theme sign pattern in (47). The pattern is not actually a surprise at all, as it is in fact identical to the pattern that occurs in the normal TA conjunct, in which the 3rd-person object form is inverse but the 1st/2nd-person object forms are not (§4.5 above). The parallel patterning of the inanimate actor forms and the regular TA forms in the conjunct is summarized in (48).

(48) Shared patterning of theme signs in TA conjunct forms

<table>
<thead>
<tr>
<th>REGULAR TA FORM</th>
<th>INANIMATE ACTOR FORM</th>
</tr>
</thead>
<tbody>
<tr>
<td>3rd-person object 4—3 -ekw (INV)</td>
<td>0—3 -ekw (INV)</td>
</tr>
<tr>
<td>1st-person object 3—1 -i (1OBJ)</td>
<td>0—1 -i (1OBJ)</td>
</tr>
<tr>
<td>2nd-person object 3—2 -eθ (2OBJ)</td>
<td>0—2 -eθ (2OBJ)</td>
</tr>
</tbody>
</table>

Evidently, then, something causes the inanimate actor forms of the conjunct order to pattern with other TA conjunct forms rather than with the uniformly inverse inanimate actor forms of the independent order. My current account of the independent-conjunct contrast cannot explain this divergence in patterning, and I will temporarily leave the problem unsolved.
In Chapter 5, other factors will lead me to revise my analysis of the independent-conjunct contrast by attributing it to the presence or absence of \([uD]\) rather than \([u\text{Participant}]\), a revision that will enable a solution for the inanimate actor forms as well (§5.7).

### 4.6.3 Intransitive verbs (AI and II verbs)

Crosslinguistically, intransitive verbs can be classified into two basic classes: UNERGATIVES, in which the argument is an actor, and UNACCUSATIVES, in which the argument is an undergoer. The two classes can sometimes be identified in Algonquian by the appearance of different stem-forming “finals” (e.g. Hirose 2003), but the distinction has no inflectional relevance: intransitive verbs of both classes inflect identically, as shown in (49) for unergative \(ni\text{-}my\)- ‘to dance’ and unaccusative \(pankahšin\)- ‘to fall’. (These are both Animate Intransitive (AI) verbs, which select an animate argument; Inanimate Intransitive (II) verbs exist as well.)

(49) Identical inflection for unergatives and unaccusatives (independent order shown)

<table>
<thead>
<tr>
<th>UNERGATIVE</th>
<th>UNACCUSATIVE</th>
</tr>
</thead>
<tbody>
<tr>
<td>(ni\text{-}my)- ‘to dance’</td>
<td>(pankahšin)- ‘to fall’</td>
</tr>
<tr>
<td>1s</td>
<td>1s</td>
</tr>
<tr>
<td>(ne)- ni-my- dance</td>
<td>(ne)- pankahšin- fall</td>
</tr>
<tr>
<td>2s</td>
<td>2s</td>
</tr>
<tr>
<td>(ke)- ni-my- dance</td>
<td>(ke)- pankahšin- fall</td>
</tr>
<tr>
<td>1p</td>
<td>1p</td>
</tr>
<tr>
<td>(ne)- ni-my- dance</td>
<td>(ne)- pankahšin- fall</td>
</tr>
<tr>
<td>21p</td>
<td>21p</td>
</tr>
<tr>
<td>(ke)- ni-my- dance</td>
<td>(ke)- pankahšin- fall</td>
</tr>
<tr>
<td>2p</td>
<td>2p</td>
</tr>
<tr>
<td>(ke)- ni-my- dance</td>
<td>(ke)- pankahšin- fall</td>
</tr>
<tr>
<td>3s</td>
<td>3s</td>
</tr>
<tr>
<td>(ni\text{-}my)- dance</td>
<td>(pankahšin)- fall</td>
</tr>
<tr>
<td>3p</td>
<td>3p</td>
</tr>
<tr>
<td>(ni\text{-}my)- dance</td>
<td>(pankahšin)- fall</td>
</tr>
</tbody>
</table>

For the purposes of this section, the crucial property of intransitive verbs is that \(\text{no theme sign appears}\). In order to extend the proposed analysis to account for this fact, I will assume the intransitive structures in (50). In an unergative, the sole agent argument is generated as the specifier of Voice\(^0\), like a transitive agent. In an unaccusative, the sole theme argument is generated as the specifier of \(v^0\), like a transitive theme, and Voice\(^0\) is absent.
(50) Syntactic structures for intransitive verbs

a. Unergative  
   VoiceP 
   AGENT 
   Voice 
   vP 
   v 
   (‘final’) 
   Root

b. Unaccusative  
   vP 
   THEME 
   v 
   (‘final’) 
   Root

I also assume that the Infl₀ head posited above (§4.3) occurs in both forms, since it belongs to the inflectional domain of the clause and is thus predicted to occur regardless of transitivity, as T₀ does. I further assume that Voice₀ and Infl₀ carry exactly the same person probes as they do in a transitive clause, as shown in (51). The structures assumed for intransitive clauses are thus identical to those that were proposed for transitive clauses except for the absence of an argument and, for unaccusatives, the absence of Voice₀.

(51) Syntactic structures for intransitive verbs, including probes (independent order)

a. Unergative  
   InflP 
   [Inf] 
   [uPers] 
   [uProx] 
   [uPart] 

   VoiceP 
   AGENT 
   Voice 
   [uPers] 
   [EPP] 
   v 
   (‘final’) 
   Root

b. Unaccusative  
   InflP 
   [Inf] 
   [uPers] 
   [uProx] 
   [uPart] 

   vP 
   THEME 
   v 
   (‘final’) 
   Root

The agreement relations that obtain in these structures are shown in (52). In the unergative form, Voice₀ c-commands no nominals, so neither its [uPerson] probe nor its [EPP] feature can be satisfied. (As mentioned in the preceding section, I follow Preminger (2010) in assuming that failure to agree does not crash the derivation; it simply results in the absence of agreement.) Infl₀ c-commands the sole argument and can thus agree with it for person. In the unaccusative form, the only probe present is Infl₀, which will again agree with the sole argument for person. In view of the Agreement Target Rule in (18) above, the agreement of
Infl\(^0\) with the sole argument predicts that the prefix and inner suffix will agree with the sole argument as well. This prediction is correct, as the forms in (49) above show.\(^7\)

(52) Agreement relations in intransitive verbs

\begin{itemize}
  \item[a.] Unergative
    \[
    \begin{array}{c}
    \text{Infl} \\
    \text{uPers} \\
    \text{uProx} \\
    \text{uPart}
    \end{array}
    \hspace{2cm}
    \begin{array}{c}
    \text{Voice} \\
    \text{uPers} \\
    \text{EPP}
    \end{array}
    \hspace{2cm}
    \begin{array}{c}
    \text{vP} \\
    \text{v ('final')}
    \end{array}
    \hspace{2cm}
    \begin{array}{c}
    \text{Root}
    \end{array}
    \]
  \item[b.] Unaccusative
    \[
    \begin{array}{c}
    \text{Infl} \\
    \text{uPers} \\
    \text{uProx} \\
    \text{uPart}
    \end{array}
    \hspace{2cm}
    \begin{array}{c}
    \text{vP} \\
    \text{v ('final')}
    \end{array}
    \hspace{2cm}
    \begin{array}{c}
    \text{Root}
    \end{array}
    \]
\end{itemize}

We are now in a position to explain why no theme sign appears in intransitive forms. In order to do so, we must explain why both Infl\(^0\) and Voice\(^0\) receive a null spell-out. Let us begin with Infl\(^0\), the spell-out rule for which is repeated in (53) (from (21) above).

(53) Spell-out rule for Infl\(^0\)

\[
\begin{align*}
\text{Infl}_0[\alpha\text{Pers}] & \quad \leftrightarrow \quad -ekw / \text{Voice}_0[\alpha\text{Pers}] \\
& \quad \leftrightarrow \quad \emptyset / \text{elsewhere}
\end{align*}
\]

According to this rule, Infl\(^0\) receives an overt spell-out (as -ekw) only when it has the same person features as Voice\(^0\). This will never be the case in the intransitive forms in (52), as Voice\(^0\) lacks person features in the unergative form and is absent altogether in the unaccusative form. Infl\(^0\) is thus correctly predicted to be null.

Turning to Voice\(^0\), which occurs only in the unergative form, the spell-out rule posited in (44) above is repeated in (54).

(54) Spell-out rule for Voice\(^0\)

\[
\begin{align*}
\text{Voice}_0[\alpha\text{Pers}] & \quad \leftrightarrow \quad \emptyset / \text{Infl}_0[\alpha\text{Pers}] \\
& \quad (= \text{inverse form; -ekw in Infl}\(^0\))
\end{align*}
\]

\[
\begin{align*}
\text{Voice}_0[\text{pers}, \text{pers}, \text{pers}, \text{pers}] & \quad \leftrightarrow \quad -\epsilon \theta \\
& \quad (= \text{2nd-person object})
\end{align*}
\]

\[
\begin{align*}
\text{Voice}_0[\text{pers}, \text{pers}, \text{pers}] & \quad \leftrightarrow \quad -i \\
& \quad (= \text{1st-person object})
\end{align*}
\]

\[
\begin{align*}
\text{Voice}_0[\text{pers}, \text{pers}] & \quad \leftrightarrow \quad -a \cdot \\
& \quad (= \text{3rd/4th-person object})
\end{align*}
\]

\[
\begin{align*}
\text{Voice}_0[\text{pers}] & \quad \leftrightarrow \quad -am \\
& \quad (= \text{inanimate object})
\end{align*}
\]

\(^7\)In fact, it is only the 1st- and 2nd-person forms in (49) that behave as predicted; the 3rd-person forms lack the prefix and inner suffix and instead employ the outer suffix to agree with the sole argument. This exceptional pattern is accounted for in Chapter 6.
It turns out that unergative Voice\textsuperscript{0} satisfies \textit{none} of the conditions in (54). The first condition applies only when Voice\textsuperscript{0} and Infl\textsuperscript{0} share the same person feature, which we have already established is never the case in an intransitive. The remaining conditions apply when the [EPP] feature of Voice\textsuperscript{0} is satisfied, which is also never the case in an intransitive, as Voice\textsuperscript{0} c-commands no nominal that could move to its specifier. We thus need to add a new condition to the rule in order to accommodate unergative Voice\textsuperscript{0}. The required condition must spell out Voice\textsuperscript{0} as null when it lacks both person features and a satisfied [EPP] feature. This condition can in fact be treated as the elsewhere case, as in the amended rule in (55).

\begin{align*}
(55) \quad \textit{Spell-out rule for Voice}^0 \quad \text{(extended from (54))} \\
\text{Voice}^0_{[\alpha \text{Pers}]} & \leftrightarrow \emptyset / _{-} \text{Infl}^0_{[\alpha \text{Pers}]} \quad (= \text{inverse form; -ekw in Infl}^0) \\
\text{Voice}^0_{[\text{Pers}, \text{Prox}, \text{Part}, \text{Addr}]} & \leftrightarrow -e\theta \quad (= \text{2nd-person object}) \\
\text{Voice}^0_{[\text{Pers}, \text{Prox}, \text{Part}]} & \leftrightarrow -i \quad (= \text{1st-person object}) \\
\text{Voice}^0_{[\text{Pers}]} & \leftrightarrow -a\cdot \quad (= \text{3rd/4th-person object}) \\
\text{Voice}^0_{[\text{Pers}]} & \leftrightarrow -am \quad (= \text{inanimate object}) \\
\text{Voice}^0 & \leftrightarrow \emptyset \quad (= \text{intransitive})
\end{align*}

The absence of theme signs in intransitive forms thus follows from the proposed analysis, together with standard assumptions about the structure of intransitive clauses and the minimal addition of a null elsewhere case to the spell-out rule for Voice\textsuperscript{0}.

### 4.6.4 Pseudo-transitive verbs (AI+O verbs)

In addition to the TA and TI verbs discussed above, Algonquian has a further class of transitive verbs: the so-called “pseudo-transitive” (Bloomfield 1946:95) or “AI+O” (Goddard 1974b:319) verbs. I will propose that the AI+O verbs contain a special version of \textit{v}\textsuperscript{0} that assigns inherent case to the theme, making it inaccessible to further syntactic operations.

AI+O verbs are like TA and TI verbs in that they semantically select a theme argument, but they differ in three ways: (1) no theme sign appears on the verb, so the inflection looks more like that of an intransitive verb (hence the “AI+O[bject]” label); (2) the theme argument can be either animate or inanimate; and (3) the theme argument cannot be 1st/2nd person. The properties of AI+O verbs are compared with the other verb classes in (56).
Comparison of verb classes

<table>
<thead>
<tr>
<th>OBJECT</th>
<th>TA</th>
<th>TI</th>
<th>AI+O</th>
<th>AI</th>
</tr>
</thead>
<tbody>
<tr>
<td>1, 2, 3, 4</td>
<td>0</td>
<td>3, 4, 0</td>
<td>none</td>
<td></td>
</tr>
</tbody>
</table>

It should be emphasized that AI+O is a lexical class of verbs, not an inflectional paradigm that can be applied to any verb. A particular set of transitive verb stems belongs to the AI+O class and the AI+O inflection occurs only with these stems. I know of no general rule to predict whether a given transitive stem will belong to the AI+O class. Instead, the existence of AI+O forms seems to be an idiosyncracy of the lexicon: the learner must simply memorize which stems belong to this set.

I propose that the AI+O verbs are lexically specified as containing a special version of $v^0$ that assigns inherent Case to the theme. To show how this proposal derives the special AI+O properties, I will compare the derivation of the 1st-person AI+O form nekemo-tehmena· ‘we steal him/her/them/it’ with that of the TA form nesa-kiha-hmena· ‘we love him/her/them’, glossed in (57). (Both of these examples are inflected in the so-called “absolute” form of the independent order, discussed further in Chapter 6.)

Example TA and AI+O 1st-person-subject forms

a. TA FORM
   ne- [sa-k -ih] [-a] -hm -ena·
   1- [love -TA] -3OBJ -PRES -1p
   ‘we love him/her/them’ (TA)

b. AI+O FORM
   ne- [kemo-t -Ø] -ehm -ena·
   1- [steal -AI+O] -PRES -1p
   ‘we steal him/her/them/it’ (AI+O)

In both of the derivations in (58), $v^0$ (the final) introduces the theme argument, but in the AI+O form in (58b), $v^0$ also assigns inherent Case to its argument, as proposed above. (The dotted line in this structure indicates Case assignment.)
(58) Comparison of TA and AI+O derivations: the $v^0$ cycle

a. **TA FORM**

```
 vP
 |   |   |
 | THEME (3rd-Pers) | $v^0$ | Root
 |                 | -ih   | sa-k- 'love'
```

b. **AI+O FORM**

```
 vP
 |   |   |
 | THEME (3rd-Pers) | $v^0$ | Root
 | [CASE]           | -Ø    | kemo-t- 'steal'
```

The next step, shown in (59), is the addition of Voice$^0$. In the TA form, Voice$^0$ satisfies its [uPerson] and [EPP] features by agreeing with the theme and raising it to Spec-VoiceP ($\S$4.2). In the AI+O form, however, I propose that the presence of inherent Case on the theme “freezes” it to further operations, thus preventing it from being a person-agreement target and from moving to satisfy the EPP. Because of the freezing of the theme, the features of Voice$^0$ go unsatisfied in an AI+O form just as they do in an AI intransitive form, since Voice$^0$ c-commands no nominal that is eligible for person agreement or movement.

(59) Comparison of TA and AI+O derivations: the Voice$^0$ cycle

a. **TA FORM**: Voice$^0$ agrees with theme

```
 VoiceP
 |   |   |   |   |
 | THEME (3rd-Pers) | AGENT (1st-Pers) | Voice [uPers] [EPP] | vP
 |                 |               |                         | 
```

```plaintext
THME (3rd-Pers)  $v^0$  Root
(TA final)       -ih  sa-k- 'love'
```
b. **AI+O FORM**: theme frozen by inherent Case, no Voice\(^0\) agreement

```
<table>
<thead>
<tr>
<th>VoiceP</th>
</tr>
</thead>
<tbody>
<tr>
<td>AGENT</td>
</tr>
<tr>
<td>(1st-Pers)</td>
</tr>
<tr>
<td>Voice</td>
</tr>
<tr>
<td>[uPers]</td>
</tr>
<tr>
<td>[EPP]</td>
</tr>
<tr>
<td>vP</td>
</tr>
<tr>
<td>THEME</td>
</tr>
<tr>
<td>(3rd-Pers)</td>
</tr>
<tr>
<td>[CASE]</td>
</tr>
<tr>
<td>(\cdots)</td>
</tr>
<tr>
<td>Root</td>
</tr>
<tr>
<td>(\cdots)</td>
</tr>
<tr>
<td>kemo(\cdot)t(-)</td>
</tr>
<tr>
<td>(\cdots)</td>
</tr>
</tbody>
</table>

Finally, Infl\(^0\) is merged, and in both derivations its \([u\text{Person}, u\text{Proximate}, u\text{Participant}]\) probe will agree with the higher-ranked 1st-person agent argument, thus correctly predicting that the prefix and inner suffix will index the agent in both forms, as can be observed in (57) above.

This analysis explains why an AI+O verb inflects like an intransitive AI verb despite having transitive argument structure: its theme is inaccessible to agreement due to the assignment of inherent Case, which causes the \([u\text{Pers}]\) and \([\text{EPP}]\) features of Voice\(^0\) to go completely unchecked in the AI+O form just as they do in an intransitive form. The analysis also helps to explain why AI+O verbs cannot have 1st/2nd-person themes. There have been recent proposals that 1st/2nd-person nominals require special licensing. Baker’s (2008:126) Person Licensing Condition places special binding conditions on 1st/2nd persons, while his related Structural Condition on Person Agreement (p. 52) requires 1st/2nd-person agreement to be strictly local. Similarly, Bejar and Rezac (2003) propose that 1st/2nd-person features must be licensed in the syntax but 3rd-person features need not be. Taking a cue from these proposals, I suggest that Algonquian obeys the Participant Licensing Condition in (60).

(60) *Participant Licensing Condition*

The \([\text{Participant}]\) feature must be licensed by person agreement.

This condition effectively bars 1st/2nd-person nominals, the bearers of the \([\text{Participant}]\) feature, from occupying positions in which agreement is not possible. Due to the freezing effect of inherent Case assignment, the theme of an AI+O verb is one such position. It thus follows that 1st/2nd-person nominals are excluded as AI+O themes.

In summary, I have proposed that the AI+O verbs are distinguished lexically by a version of \(v^0\) that assigns inherent Case to the theme. This proposal explains why the semantically
transitive AI+O verbs inflect like intransitives: due to the freezing effect of inherent Case, 
Voice\(^0\) ends up with the same featural status as it has in an intransitive form; intransitive 
inflection is the result. With the addition of the Participant Licensing Condition, the proposal 
also explains why the theme of an AI+O verb cannot be 1st/2nd person. (The Participant 
Licensing Condition will play a similar role in the following section on ditransitive verbs.)

It is interesting to compare this analysis with a proposal by Kyriakaki (2009) that the AI+O 
verb in Ojibwe is in fact an antipassive construction (cf. a similar proposal for Blackfoot by 
Frantz (1978a)). While I have not adopted the antipassive machinery proposed by Kyriakaki, 
which includes adjunction of the theme argument to \(v\) and reanalysis of the \(vP\) as a head, 
my proposal is consistent with Kyriakaki’s central insight. Under my analysis, the theme 
of an AI+O verb receives a special case that prevents it from functioning as a true direct 
object, exactly as in a canonical antipassive construction. I thus concur with Kyriakaki that 
the AI+O verb can be regarded as an antipassive, although our analytical implementations of 
this descriptive observation differ.

4.6.5 Ditransitive verbs (TA+O verbs)

In addition to the intransitive and monotransitive verbs discussed above, Algonquian also has 
a class of ditransitive verbs known as “TA+O” verbs (Goddard 1974b:319). Many ditransitive 
verb stems are derived from monotransitive TI stems through the addition of a goal argument, 
as illustrated in (61). These derived ditransitive stems involve the addition of the morpheme 
-aw, which I take to be an applicative head Appl\(^0\) that introduces the goal. (For similar 
proposals, see Brittain 2003 on the Central Algonquian language Innu-aimun and Quinn 
2006 on the Eastern Algonquian language Penobscot.\(^8\))

(61) Derived ditransitive stems

<table>
<thead>
<tr>
<th>TI STEM</th>
<th>DITRANSITIVE STEM</th>
</tr>
</thead>
<tbody>
<tr>
<td>eθen-</td>
<td>’handle it thus’</td>
</tr>
<tr>
<td>akint-</td>
<td>’count it’</td>
</tr>
<tr>
<td>a·tot-</td>
<td>’tell of it’</td>
</tr>
<tr>
<td>eθenamaw-</td>
<td>’handle it thus for someone’</td>
</tr>
<tr>
<td>akintamaw-</td>
<td>’count it for someone’</td>
</tr>
<tr>
<td>a·totamaw-</td>
<td>’tell someone of it’</td>
</tr>
</tbody>
</table>

\(^8\)Quinn (2006) actually proposes not only that ditransitive TA+O verbs contain an applicative head, but that 
the object-introducing light verb in monotransitive TA verbs—which I have represented as \(v^0\) (§4.1)—is in fact 
an applicative head as well. Among other benefits, Quinn’s proposal explains why ditransitives can be derived 
from TI verbs, as in (61), but not from TA verbs: Appl\(^0\) cannot be added to a TA verb because the verb is already 
applicative in the first place.
Although most ditransitive stems are derived from monotransitive stems, there are also simple ditransitive stems such as \textit{mi-r-} ‘give’, which have the same inflectional properties as the derived ditransitive stems in (61) but lack their derivational complexity. In order to focus purely on inflection, I will restrict my attention to simple stems such as this. (See Brittain 1993 for extensive discussion of the derivation of complex forms like those in (61).)

Before examining the inflection of the Algonquian ditransitive verb, some typological background is necessary. Two different patterns of morphosyntactic alignment are found in languages that make a grammatical distinction between the two objects of a ditransitive verb (Dryer 1986; Haspelmath 2005; Maluchkov et al. 2010). In the \textbf{indirective} pattern in (62a), the theme is marked the same in both monotransitives and ditransitives (e.g. by accusative case) while the ditransitive goal receives special marking (e.g. dative case). In the \textbf{secundative} pattern in (62b), on the other hand, the ditransitive goal receives the same marking as the monotransitive theme (the “primary object”) while the ditransitive theme is treated differently (the “secondary object”).

(62) Two patterns of morphosyntactic alignment for ditransitive verbs

\begin{enumerate}
\item Indirective pattern

\begin{tabular}{ccc}
\textbf{MONOTRANSITIVE} & \textbf{DITRANSITIVE} & \\
\hline
theme & theme & \textit{(direct object)} \\
& goal & \textit{(indirect object)} \\
\end{tabular}

\item Secundative pattern

\begin{tabular}{ccc}
\textbf{MONOTRANSITIVE} & \textbf{DITRANSITIVE} & \\
\hline
theme & goal & \textit{(primary object)} \\
& theme & \textit{(secondary object)} \\
\end{tabular}
\end{enumerate}

The inflection of Algonquian ditransitive verbs follows the secundative pattern: it is the goal, not the theme, that is indexed by the object-agreement theme sign and participates with the subject in the direct-inverse system. This point can be illustrated by comparing the inflection of a ditransitive form with that of a monotransitive form. In the direct ditransitive form in (63b), it is the 3rd-person plural goal, not the inanimate singular theme, that is indexed as an object on the verb. (No inflection indexes the inanimate theme here.)
Comparison of direct monotransitive and ditransitive forms

a. Monotransitive: agreement indexes agent (1pl) and theme (3pl)
ne-wa-pam-a-w-ena-n-aki
1-see-3OBJ-PRES-1p-3p
‘we see them’ (1 agent, 3 theme)

b. Ditransitive: agreement indexes agent (1pl) and goal (3pl), 0sg theme unindexed
ne-mi-r-a-w-ena-n-aki
1-give-3OBJ-PRES-1p-3p
‘we give it to them’ (1 agent, 3 goal, 0 theme)

In the same way, the inverse ditransitive form in (64b) indexes the 1st-person plural goal rather than the inanimate singular theme. (Again, no inflection indexes the theme.)

Comparison of inverse monotransitive and ditransitive forms

a. Monotransitive: agreement indexes theme (1pl) and agent (3pl)
ne-wa-pam-ekw-w-ena-n-aki
1-see-INV-PRES-1p-3p
‘they see us’ (3 agent, 1 theme)

b. Ditransitive: agreement indexes goal (1pl) and agent (3pl), 0sg theme unindexed
ne-mi-r-ekw-w-ena-n-aki
1-give-INV-PRES-1p-3p
‘they give it to us’ (3 agent, 1 goal, 0 theme)

The secundative agreement pattern of Algonquian is summarized in (65). To account for this pattern, the analysis must explain why Voice⁰, the head responsible for object agreement, targets the goal rather than the theme in a ditransitive form; it will then follow that a ditransitive goal has the same morphosyntactic properties as a monotransitive theme.

Alignment of agreement inflection in Algonquian transitive verbs

a. Monotransitive (TA): agent • 

b. Ditransitive (TA+O): agent • 

I will follow the analysis proposed by Baker (2013:26–7) (see also Sheehan 2013), in which the secundative pattern occurs in languages that do not assign dative Case to the goal. This analysis is outlined in (66). For reference, the structure of a monotransitive form is given
in (66a): here, Voice\(^0\) agrees with the theme. In an indirective language (such as French, but not Algonquian), the Appl\(^0\) head that introduces the goal also assigns it inherent Case, thus making the goal inaccessible for further agreement operations. Voice\(^0\) therefore skips the goal and agrees with the theme in such languages. On the other hand, in a secundative language (like Algonquian), Appl\(^0\) does not assign inherent Case to the goal, thus leaving the goal accessible to further agreement operations. Voice\(^0\) therefore agrees with the goal rather than the theme, since the goal is closer to Voice\(^0\) than the theme is.

(66) Indirective/secundative as presence/absence of inherent Appl-case

a. Monotransitive (for reference): Voice\(^0\) agrees with theme

```
VoiceP
  ↓
AGENT
  ↓
Voice [\(u\)Pers]
  ↓
  vP
    ↓
      THEME
      ↓
v Root
```

b. Indirective: Appl\(^0\) assigns inherent Case to goal; Voice\(^0\) agrees with theme

```
VoiceP
  ↓
AGENT
  ↓
Voice [\(u\)Pers]
  ↓
  ApplP
    ↓
      GOAL [\(\text{DAT}\)]
      ↓
      Appl
      ↓
      vP
        ↓
          THEME
          ↓
v Root
```

c. Secundative: Appl\(^0\) does not assign inherent case; Voice\(^0\) agrees with goal

```
VoiceP
  ↓
AGENT
  ↓
Voice [\(u\)Pers]
  ↓
  ApplP
    ↓
      GOAL
      ↓
      Appl
      ↓
      vP
        ↓
          THEME
          ↓
v Root
```
We can thus account for the agreement pattern of Algonquian ditransitives by positing that Appl° in Algonquian does not assign inherent Case to its specifier, as in (66c). This analysis explains why the goal of a TA+O verb acts as the “true” object in Algonquian, but what does it predict about the theme? Note that in the secundative structure in (66c), the theme remains untouched by person agreement. This outcome is significant in light of the Participant Licensing Condition proposed in the preceding section, repeated in (67), which requires person agreement in order for a 1st/2nd-person argument to be licensed.

(67) Participant Licensing Condition (repeated from (60))

The [Participant] feature must be licensed by person agreement.

Since person agreement does not apply to the TA+O theme, the Participant Licensing Condition predicts that the TA+O theme cannot be 1st/2nd-person. This prediction is correct: the theme of an Algonquian TA+O verb is always 3rd/4th/0th person, never 1st/2nd person (e.g. Rhodes 1990 and Lochbihler 2012:118 for Ojibwe).

In this respect, ditransitive TA+O themes pattern with pseudo-transitive AI+O themes, which, as we have seen, also cannot be 1st/2nd-person (§4.6.4). In light of this similarity, Algonquianists group the themes of AI+O and TA+O verbs together as the class of secondary objects (Goddard 1974b:319), defined as objects that are not indexed by person agreement or theme signs on the verb and cannot be 1st/2nd-person. The classhood of secondary objects is captured by the analysis developed above. Although the structures proposed for AI+O and TA+O verbs differ, the theme has the same status in both: it occupies a position in which person agreement cannot occur. In an AI+O form, person agreement is ruled out by the assignment of inherent Case to the theme, while in a TA+O form, person agreement is intercepted by the intervening goal argument. In both cases, the absence of person agreement prevents the occurrence of 1st/2nd-person arguments, as per the Participant Licensing Condition. Under my analysis, then, the “secondary objects” recognized by Algonquianists are formalized as any object that occupies a position that is not targeted by person agreement.

Finally, it should be noted that in descriptive terms, the absence of 1st/2nd-person themes in ditransitives can be regarded as an example of the well-attested person-case constraint (PCC), which requires the theme of a ditransitive to be 3rd-person (e.g. Bonet 1991; Bejar and Rezac 2003; Adger and Harbour 2007). To my knowledge, it was Lochbihler (2007, 2012) who first observed that the restriction on TA+O themes can be classified as a PCC effect. In the analysis that I have proposed, the PCC effect is attributed to the Participant Licensing Condition, which operates in monotransitive AI+O forms as well. Deeper insight can no
doubt be gained by further pursuing the connections between these Algonquian forms and the various proposals in the PCC literature, but I must leave this project to future work. (See Lochbihler 2012 for extensive discussion along these lines.)

4.6.6 Summary: Theme signs in other verb classes

The preceding discussion has shown that, with minimal modifications, the analysis of Algonquian theme signs developed for the core Transitive Animate system can be extended to account for the other Algonquian verb classes as well (transitive TI, intransitive AI/II, pseudo-transitive AI+O, and ditransitive TA+O). Four additions to the analysis were required: (1) the spell-out -am for Voice⁰ when its [EPP] feature is satisfied but its [uPerson] probe is not (i.e. in TI forms); (2) a null spell-out for Voice⁰ when neither its [EPP] feature nor its [uPerson] is satisfied (i.e. in intransitive and pseudo-transitive forms); (3) a special version of v⁰ that assigns inherent Case to its argument in AI+O forms; and (4) the Participant Licensing Condition, which rules out 1st/2nd-person arguments in positions where person agreement cannot occur, thus providing a formal implementation of the notion of “secondary objects” that applies to both AI+O and TA+O forms.

4.7 Summary: An agreement analysis of TA theme signs

This chapter has presented an analysis of the theme sign system of Proto-Algonquian that applies to both the independent and conjunct orders. The analysis attributes the direct-inverse pattern to an interaction between two agreement probes: a flat [uPerson] probe on Voice⁰, which always agrees with the object, and an articulated probe on Infl⁰, which agrees with the best-matching argument(s). The Infl-probe bears the features [uPerson, uProximate, uParticipant] in the independent order and [uPerson, uProximate] in the conjunct order. Due to a complementarity in the spell-out rules for Infl⁰ and Voice⁰ that developed from morphophonological origins, only one of Infl⁰ or Voice⁰ can be spelled out in any particular form. When Infl⁰ has the same person features as Voice⁰ (i.e. when Infl⁰ agrees only with the object), Infl⁰ is spelled out as the inverse theme sign -ekw; otherwise (i.e. when Infl⁰ agrees with the subject or with both arguments), Voice⁰ is spelled out as the appropriate object-agreement theme sign. Under this analysis, the Algonquian theme sign system is not, in fact, a direct-inverse system at all. Instead, it is simply an object-agreement system that is disrupted by a special marker that appears when both probes agree with the object (-ekw).
A benefit of this analysis is that the theme sign system in the independent and conjunct orders involves exactly the same syntactic configuration and spell-out rules. The only difference between the two orders is a single microparameter: the presence or absence of [uParticipant] on Infl\(^0\). (See Chapter 5, however, for a revised proposal that this microparameter instead involves [uD] (§5.7).) The analysis is thus more unified than that of Lochbihler (2012), in which an entirely different set of spell-out rules was posited for the conjunct order, effectively treating it as a separate system. Furthermore, since the proposed microparameter applies to Infl\(^0\), a head in the inflectional domain, the grammatical makeup of the thematic domain (the VoiceP) remains identical in both orders. The analysis thereby confines grammatical variation to the inflectional domain, a beneficial result that is not possible in analyses that locate all theme signs in v\(^0\) (e.g. Bejar and Rezac 2009; Lochbihler 2012).

The value of confining grammatical variation to the inflectional domain deepens when we consider the diachronic relationship between the independent and conjunct orders. As discussed in Chapter 1, the conjunct order is more archaic than the independent order, which was innovated in Pre-PA through the addition of nominal inflection to the verb. In diachronic terms, then, the conjunct system, in which Infl\(^0\) probes for [uPerson, uProximate], is the original system, and the modification of the probe on Infl\(^0\) is an innovation that occurred in the development of the independent order. Ascribing this innovation to Infl\(^0\) allows for the simplest possible account of the development of the independent order: the thematic domain of the verb (the VoiceP) was retained intact, and only the inflectional domain (InflP and subsequent projections) was changed when nominal inflection was added. The nature of this change will be considered further in Chapter 5 (§5.7).
Chapter 5

Theme signs in the unspecified actor form

This chapter examines a passive-like verb form that goes by a number of different names and analyses. I will refer to it as the unspecified actor form (Wolvengrey 2005, 2011; Trommer 2006); other terms include “unspecified subject” (Frantz 1971, 1976; Pentland 1999), “unspecified agent” (Lochbihler 2012), “passive” (Bloomfield 1958; Rhodes 1976; Dahlstrom 1991), “indefinite actor” (Hockett in the preface to Bloomfield 1958; Wolfart 1973; Dryer 1996), “indefinite subject” (Goddard 1967, 1979b, 2007), and “actorless” (Hockett 1996). Analyses are equally varied, with opinions divided on whether the form is truly a passive (Frantz 1976; Rhodes 1976; Jolley 1982; Dahlstrom 1991) or is not (Frantz 1971:40–41; Dryer 1996; Déchaïne and Reinholtz 1998; Trommer 2006; Lochbihler 2012). Taking the middle ground, Goddard (1979b:118–21) considers the construction to be “ambivalent” between active and passive, a position echoed by Wolvengrey (2011). To make matters even more confusing, the term “passive” is often used for convenience even by those who do not subscribe to the passive analysis, given the awkwardness of the alternative terms (e.g. Goddard 1967:88). An accessible survey of some of the issues is provided by Zúñiga (2006:111–114), who ultimately declines to take a position (p. 128); see also discussion in Wolfart 1991.

For the purposes of this thesis, the unspecified actor form is relevant because of its interactions with the system of theme signs. The patterning of theme signs in the independent-order unspecified actor form presents a well-known puzzle: forms with 1st/2nd-person objects (‘I am seen’, ‘you are seen’) appear to be inverse while forms with 3rd-person objects (‘s/he is seen’) appear to be direct. Integrating this surprising pattern with the familiar direct-inverse pattern in normal active clauses is a challenge for any analysis of theme signs. The end result will be an improved analysis that sheds light on other aspects of Algonquian morphosyntax, including the problematic inanimate actor forms from Chapter 4, as well as broader theoretical issues of equidistance and locality.
After a descriptive introduction (§5.1), this chapter considers the arguments both for (§5.2) and against (§5.3) the passive analysis of unspecified actor forms. I conclude that the forms are not passive, as there is evidence both for the treatment of the theme as a grammatical object and for the presence of an underlying agentive subject. The subject is somehow grammatically defective, however, and in order to formalize its status, we must consider the syntactic representation of Algonquian nominals more generally (§5.4); this discussion identifies another microparameter that is relevant to Algonquian agreement: the representation of nominals as DP or PersP. With this background in place, I then propose an analysis of the unspecified-actor forms in the conjunct order (§5.5) and independent order (§5.6). The analysis of the conjunct pattern provides additional support for the “two-headed” approach to theme signs (Voice⁰ and Infl⁰) while the analysis of the independent pattern identifies a subtle role for locality in the probing of equidistant goals. Finally, the last section (§5.7) revises the analysis of the core direct-inverse pattern in light of the new proposals made in this chapter. The revised analysis resolves earlier problems and allows for a more elegant account of the diachronic relationship between the conjunct and independent orders.

5.1 Introduction to the unspecified actor form

In addition to the direct, inverse, and inanimate actor forms in (1a–c), which both take two full-fledged arguments, the Algonquian TA verb also has the UNSPECIFIED ACTOR form in (1d), in which the agent argument seems to be absent. Such forms translate most naturally as English passives, but other kinds of translations are also possible, as indicated in (1d).

(1) Direct, inverse, inanimate actor, and unspecified actor forms (PA independent)

a. DIRECT (3p—4s)
   
   we-wa-pam-a-w-wa-wari
   3-see-3OBJ-PRES-3p-4s
   ‘they see the other’

b. INVERSE (4s—3p)
   
   we-wa-pam-ekw-w-wa-wari
   3-see-INV-PRES-3p-4s
   ‘the other sees them’

c. INANIMATE ACTOR (0s—3p)
   
   we-wa-pam-ekw-en-e-wa-wi
   3-see-INV-PRES-3p-0s
   ‘it sees them’

d. UNSPECIFIED ACTOR (X—3p)
   
   wa-pam-a-waki
   see-3OBJ-PRES-3p
   ‘they are seen, people see them, there is seeing of them’
As illustrated in (1d), Algonquianists use the notation “X” to represent the agent in such forms. Depending on one’s perspective, “X” can be taken to indicate either the absence of an agent or the presence of a special kind of defective agent. This defective agent should not be referred to as an “indefinite” agent, despite the common use of this term by Algonquianists (e.g. Goddard 1967, Wolfart 1973, Dryer 1996), since the agent in such forms is not merely indefinite, but rather completely unspecified, as expressed in the following quotations:

“X is not...INDEFINITE—it is not simply an argument which is not indexed on the verb, nor an under-specified third person, but rather a participant without specified person, number, gender, or anything else.” (Pentland 1999:228)

“[T]hese forms no longer allow ANY reference to the agent. You can’t put a noun in there. You can’t ask about the agent. The agent is obliterated.” (Mühlbauer 2011)

Wolvengrey (2005:436) makes this point explicit by presenting data from Plains Cree. To begin, consider the X—1p Plains Cree unspecified actor form in (2), which can be translated passively as ‘we were fed’ or actively as ‘(someone) fed us’. (The Plains Cree marker of the unspecified actor form is -ikaw, which I gloss as ‘XACT’.)

(2) Plains Cree unspecified actor form (Wolvengrey 2005:436)

\[ \text{X—1p } \text{niki-asam } \text{ikaw} \text{ nân} \]
\[ \text{1.PAST-feed. } \text{XACT}.1p \]
‘we were fed’ / ‘(someone) fed us’

If the agent in this form were truly a typical indefinite, we might expect that it could be realized by an overt indefinite nominal such as awiyak ‘someone.’ However, as shown in (3a), this is impossible. If an indefinite nominal agent is overtly expressed, the unspecified actor X—1p form cannot be used; the normal transitive 3—1p form in (3b) must occur instead.

(3) X versus indefinite 3 (Wolvengrey 2005:436)

a. Overt indefinite subject cannot occur in X—1p form

\[ \text{X—1p } \text{*awiyak } \text{niki-asam } \text{ikaw} \text{ nân} \]
\[ \text{someone 1.PAST-feed. } \text{XACT}.1p \]
‘someone fed us’ / ‘we were fed by someone’

b. Overt indefinite subject requires standard 3—1p inverse form instead

\[ \text{3—1p } \text{awiyak } \text{niki-asam } \text{iko} \text{ nân} \]
\[ \text{someone 1.PAST-feed. } \text{INV}.1p \]
‘someone fed us’
A true indefinite agent such as awiyak ‘someone’ thus patterns inflectionally like any other 3rd-person nominal, whereas the “X” agent in unspecified actor forms has its own special inflection. This distinction makes it misleading to refer to the unspecified actor as indefinite—it is somehow “beyond indefinite”, as its representation as X rather than 3 or 4 indicates.

The preceding point presupposes that the syntactic representation of such forms includes an agent at all—that is, that the unspecified actor form is impersonal (see e.g. Blevins 2003) rather than passive. While I will argue that this is the case, the issue is controversial. The following two sections consider the arguments for and against a passive analysis; in the process, the properties of the unspecified actor form will be described in more detail.

5.2 Arguments for a passive analysis

The unspecified actor form resembles a passive in that the prominence of the agent is reduced. However, if we consider the passive to be a construction in which the theme advances to the subject position normally occupied by the agent (cf. Perlmutter and Postal 1983), reduction in prominence alone is not decisive evidence. Instead, we need to find evidence that the agent is grammatically absent and the theme instead occupies the subject position.

The direct-inverse system of Algonquian makes this task difficult, since, as Wolvengrey (2005) points out, it is not entirely clear what role, if any, the notion of “subject” plays in Algonquian morphosyntax. It is true that in the X—1 form in (3a) above, the 1st-person theme controls the prefix and inner suffix agreement and might thus be considered a “subject” of some kind—but the same is equally true of the 3—1 form in (3b), which, while inverse, is indisputably transitive. The alignment of the prefix and inner suffix is thus not a useful diagnostic, as it does not distinguish unspecified actor forms from standard inverse forms; the only possible conclusion would be that both kinds of forms are passive, which would still fail to provide any insight into what makes the unspecified actor form distinct.

Since the morphology is not particularly informative, proponents of the passive analysis have instead provided syntactic arguments in its favour. One argument involves cross-clausal agreement (§5.2.1) and another involves control predicates (§5.2.2). In both cases, the theme of an unspecified actor form is targeted by a construction that otherwise targets only subjects, thus suggesting that the theme is in fact the surface subject.
5.2.1 Cross-clausal agreement targets the passive theme

The cross-clausal agreement construction was described in Chapter 2 (§2.4.2); in brief, it involves an embedding verb (e.g. ‘know’) optionally displaying object agreement with an argument in the embedded clause. Dahlstrom (1991:72–3) has shown that in Plains Cree, cross-clausal agreement always targets the embedded subject, regardless of the ranking of the subject and object on the Person Hierarchy. Cross-clausal agreement is thus a clear test for subjecthood in Plains Cree. When this test is applied to an embedded clause that contains an unspecified actor form, the result is that cross-clausal agreement targets the embedded object, as in (4) (Dahlstrom 1991:74).

(4) Plains Cree: cross-clausal agreement targets object of unspecified-actor form

\[
\text{nikiskêyimâwak \ [CP ê=kî-sêkihilicik]}
\]

1.know.1—3p ê=PERF-scare.XACT.3p

‘I know they were scared.’ (lit. ‘I know of them that they were scared.’)

Dahlstrom argues that since the notional object in (4) patterns like a subject in its ability to be targeted by cross-clausal agreement, the simplest analysis is that (4) is a passive construction in which the notional object is a subject. Such an analysis allows us to retain unmodified the generalization that cross-clausal agreement always targets the subject.

Ritter and Rosen (2005:652) suggest an alternative analysis of Dahlstrom’s data. Citing an observation by Dahlstrom (1991) that the nominal targeted by cross-clausal agreement is interpreted as the topic of the embedded clause, Ritter and Rosen propose that Plains Cree cross-clausal agreement in fact targets embedded topics. The exceptional targeting of the object in (4) could then be explained by a ban on topicalization of unspecified subjects, presumably as a reflection of their non-referential status, which would leave the object as the only possible topic and, consequently, the only possible target for cross-clausal agreement.

There are problems for Ritter and Rosen’s alternative analysis, however. The first problem is empirical: the observation about topicality that Ritter and Rosen attribute to Dahlstrom 1991 is not in fact present in that work. While it is true that cross-clausal agreement targets topics in certain Algonquian languages such as Meskwaki (Dahlstrom 1995) and Innu (Brigan and MacKenzie 2002), Dahlstrom’s (1991:67–76) description of cross-clausal agreement in Plains Cree makes no reference to topicality. The second problem involves embedded clauses with a 4—3 verb form. In such clauses, cross-clausal agreement in Plains Cree targets the obviative subject (Dahlstrom 1991:73), which, for Ritter and Rosen, must mean
that the obviative subject is a topic. However, this would be inconsistent with the usual observation that Algonquian obviative DPs are non-topical (e.g. Junker 2004); in fact, Russell (1996:379) suggests that the obviative explicitly marks non-topicality. It thus seems unlikely that the subject of a 4—3 clause is indeed a topic. The third problem involves the connection between subjecthood and topicality. Since it remains descriptively true that Plains Cree cross-clausal agreement targets only subjects, Ritter and Rosen’s attribution of cross-clausal agreement to topicalization entails that only subjects can be topics in Plains Cree. While this could turn out to be true, it is a strong empirical prediction that needs to be tested before the argument can be accepted. For these reasons, I do not consider Ritter and Rosen’s analysis to be a strong alternative to the analysis proposed by Dahlstrom.

Aside from Ritter and Rosen’s proposal, there are other possible alternatives to Dahlstrom’s passive analysis. It could be the case that the unspecific actor is present as a subject but is featurally defective in some way that prevents the matrix verb from agreeing with it. It could also be the case that cross-clausal agreement in Plains Cree targets agents rather than subjects, as suggested by Bruening (2005) and Wolvengrey (2011:188). In that case, as Wolvengrey notes, cross-clausal agreement would always target the subject in a normal transitive form (e.g. 3—4 or 4—3) but might be unable to target the subject of an unspecified-actor form (e.g. X—3) due to some sort of demotion of its agentivity. Neither of these alternative analyses has any obvious advantages over Dahlstrom’s passive analysis, but they do appear to be valid alternatives, so the cross-clausal agreement evidence alone does not appear to be sufficient grounds for concluding that the unspecified actor form is a true passive.

5.2.2 Control preverbs target the passive theme

A second syntactic argument that the unspecified actor form is a passive involves control predicates such as Plains Cree kakwê ‘try’, which is realized as an auxiliary-like element known as a preverb. Normally the agent of kakwê must match the agent of the main verb, as in (5), where the 2nd-person argument is the agent of both ‘trying’ and ‘killing’.

(5)  
\[ \text{kiwih-kakwê-nipahin} \]  
\[ 2.\text{FUT}-\text{try}-\text{kill.2–1} \]  
\[ \text{‘You are going to try to kill me.’} \]  

(Plains Cree; Wolfart 1973:76)

Frantz (1976) proposes (for Blackfoot) that this pattern can be used as a diagnostic for subjecthood: preverbs such as kakwê target the subject of the main verb. We can then test for the subject of an unspecified actor form such as Plains Cree X—1 niwâpanikawin ‘I am seen,
people see me’ by adding kakwê ‘try’ and seeing whether it targets the 1st-person theme (i.e. ‘I try to be seen’) or the unspecified agent (i.e. ‘people try to see me’). The result, in (6), is that it targets the theme (Wolvengrey 2005:438), so according to Frantz’s diagnostic, the theme is the subject and the form is thus passive.

(6) nikî-kakwê-wâpamikawin

1.PAST-try-see.XACT.1

‘I tried to be seen.’ (Plains Cree; Wolvengrey 2005:438)

However, Wolvengrey (2005) demonstrates that this pattern is not uniform. Given the appropriate discourse context, it is possible for kakwê to target the unspecified agent instead, as in (7) (which could be uttered, for example, to express how busy the speaker is).

(7) tahto-kîsikâw mâna ê-kî-kakwê-wâpamikawiyân

every-day always comp-PAST-try-see.XACT.1

‘Someone’s always trying to see me every day!’ (Plains Cree; Wolvengrey 2005:439)

Goddard 1979b:120 similarly observes that in Delaware, such preverbs “sometimes characterize the indefinite subject and sometimes the object.” The preverb test thus does not appear to be a valid diagnostic for subjecthood, at least in Plains Cree and Delaware, so we cannot use it to draw conclusions about the syntactic status of the unspecified actor form.

5.3 Arguments for a non-passive analysis

The previous section showed that the evidence in favour of a passive analysis of the unspecified actor form is inconclusive. This section will present a series of arguments in favour of a non-passive analysis of the unspecified actor form. The arguments take two forms: some show that the theme is treated grammatically as an object while others show that the agent is present in the syntactic structure. Both types of observations are characteristic of an active construction rather than a passive.

In particular, the following six arguments will be presented: object-agreement theme signs occur in the unspecified actor forms (§5.3.1); the theme in an unspecified actor form can be marked by the obviative object marker (§5.3.2); transitive agreement suffixes occur in the conjunct unspecified actor forms (§5.3.3); the unspecified actor has a fixed interpretation (§5.3.4); the unspecified actor is ranked in the Person Hierarchy (§5.3.5); and the unspecified actor construction also applies to intransitive verbs (§5.3.6).
5.3.1 Object-agreement theme signs occur

In the independent order, certain unspecified actor forms occur with a theme sign -eko- that appears to be a variant of the familiar inverse theme sign -ekw. This is illustrated in (8), in which an X—2 unspecified actor form is compared with a 3—2 inverse form.

(8) Comparison of forms in the independent order

a. Regular TA form (3—2) b. TA unspecified actor form (X—2)

\[
\begin{align*}
\text{ke-wa-pam} & \text{-ekw-wa-wa-a} \\
\text{2-see-[INV]-PRES-2p-3s} & \text{'s/he sees you (pl.)'} \\
\text{ke-wa-pam} & \text{-eko-hm-wa-} \\
\text{2-see-[INV(x)]-PRES-2p} & \text{'you (pl.) are seen, people see you (pl.)'}
\end{align*}
\]

Such forms say little about whether or not the unspecified actor form is passive, as the inverse theme sign is not tied to a particular grammatical function and thus cannot be used as an unambiguous diagnostic of subjecthood or objecthood. However, if we turn to the equivalent forms in the conjunct order, the theme sign pattern differs. In both the 3—2 form and the X—2 form, the 2nd-person object agreement theme sign -eθ appears. (The theme sign is followed by a special marker -en, which marks the unspecified actor form throughout the conjunct order; more will be said about this special -en marker in Section 5.5.)

(9) Comparison of forms in the conjunct order

a. Regular TA form (3—2) b. TA unspecified actor form (X—2)

\[
\begin{align*}
\text{wa-pam} & \text{-eθ-a-kw-e-} \\
\text{see-[OBJ]-3s/2p-sJV} & \text{'s/he sees you (pl.)'} \\
\text{wa-pam} & \text{-eθ-en-a-kw-e-} \\
\text{see-[OBJ]-XACT-X/2p-sJV} & \text{'you (pl.) are seen'}
\end{align*}
\]

In such examples, then, the theme of the unspecified actor form receives exactly the same marking as it does in a regular active form (i.e. the object-agreement theme sign). The theme is thus patterning as a true object rather than a subject.

5.3.2 The theme can be marked by the obviative object marker

Dryer (1996:60–61) identifies another respect in which the theme of an unspecified actor form is marked by morphology that is otherwise exclusive to the object. In Plains Cree, a suffix -im (from PA -em) appears on the verb when the object is “unpredictably” obviative (Pentland 1999)—that is, when the object is obviative even though no proximate argument
is present in the clause. This obviative object marker also appears when the theme of an unspecified actor form is obviative (e.g. sâkih[im]âwa ‘s/he (obv.) is loved’). In its ability to be marked by the dedicated object marker -im, the theme of the unspecified actor form is again pattering as a true object rather than a subject, at least in Plains Cree.¹

5.3.3 Transitive agreement forms occur in the conjunct order

The status of the unspecified actor form as a true transitive is also indicated by the agreement suffixes that appear in certain Proto-Algonquian conjunct-order forms. On an intransitive verb, 1p and 2p arguments are indexed by the suffixes -a·nk (1p) and -e·kw (2p):

(10) Intransitive 1p and 2p agreement suffixes (PA conjunct)

<table>
<thead>
<tr>
<th></th>
<th>1p</th>
<th>2p</th>
</tr>
</thead>
<tbody>
<tr>
<td>a.</td>
<td>pankihšin -a·nk -e·faj</td>
<td>pankihšin -e·kw -e·faj</td>
</tr>
<tr>
<td></td>
<td>‘if we fall’</td>
<td>‘if you (pl.) fall’</td>
</tr>
</tbody>
</table>

When 1p and 2p occur as the object of a transitive verb with a 3rd-person subject, the portmanteau suffixes -ament (3—1p) and -a·kw (3—2p) occur instead:

(11) Transitive 3—1p and 3—2p agreement suffixes (PA conjunct)

<table>
<thead>
<tr>
<th></th>
<th>1p</th>
<th>2p</th>
</tr>
</thead>
<tbody>
<tr>
<td>a.</td>
<td>wa·pam -iθ -ament -e·faj</td>
<td>wa·pam -a·kw -e·faj</td>
</tr>
<tr>
<td></td>
<td>‘if s/he sees us’</td>
<td>‘if s/he sees you (pl.)’</td>
</tr>
</tbody>
</table>

If the unspecified actor form were truly a passive, we would expect the X—1p and X—2p forms to take the same agreement suffixes that occur in the intransitive 1p and 2p forms in (10), since in both the passive form and the intransitive form, the verb would have only a single surface argument (the subject). However, as shown in (12), this expectation is not met: the agreement suffixes of the unspecified actor form in fact match the transitive agreement suffixes in (11), not the intransitive suffixes in (10). The X—1p form has the suffix -ament, which is clearly related to the 3—1p suffix -ament, while the X—2p form has the suffix -a·kw, which is identical to the 3—1p suffix.

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¹Dryer notes that there may also be dialects of Plains Cree in which -im is not dedicated to objects. The dedicated object-marking function is, however, reconstructed for Proto-Algonquian by Pentland (1999:234).
Chapter 5

(12) X—1p and X—2p agreement suffixes (PA conjunct)

a. \textit{wa-pam} -\textit{i} -\textit{n} -\textit{amenk} -\textit{e}.

\hspace{0.5cm} see -1OBJ -XACT -X—1p -sjv

\hspace{0.5cm} ‘if we are seen’

b. \textit{wa-pam} -\textit{e}\textsubscript{θ} -\textit{en} -\textit{a-kw} -\textit{e}.

\hspace{0.5cm} see -2OBJ -XACT -X—2p -sjv

\hspace{0.5cm} ‘if you (pl.) are seen’

The distribution of these conjunct agreement suffixes is summarized in (13); the identity of the unspecified actor suffixes with the transitive suffixes is apparent.

(13) Comparison of 1p and 2p agreement suffixes (PA conjunct)

<table>
<thead>
<tr>
<th></th>
<th>1p</th>
<th>2p</th>
</tr>
</thead>
<tbody>
<tr>
<td>INTRANSITIVE</td>
<td>-\textit{a-nk} (1p)</td>
<td>-\textit{e-kw} (2p)</td>
</tr>
<tr>
<td>TRANSITIVE</td>
<td>-\textit{ament} (3—1p)</td>
<td>-\textit{a-kw} (3—2p)</td>
</tr>
<tr>
<td>UNSPEC ACTOR</td>
<td>-\textit{amenk} (X—1p)</td>
<td>-\textit{a-kw} (X—2p)</td>
</tr>
</tbody>
</table>

The fact that the indefinite actor form takes what appears to be transitive inflection is further evidence that the form is syntactically transitive (active) rather than intransitive (passive).

5.3.4 The unspecified actor has a fixed interpretation

The evidence presented above has focused on the overall transitivity of the unspecified actor form as indicated by the treatment of the theme as a grammatical object and the appearance of transitive inflection. I turn now to a second line of argument: evidence that the unspecified actor is present in the syntactic representation. The primary support for this claim is the fact that the agent in an unspecified actor form has a fixed interpretation. The agent is not simply unspecified in the sense of being omitted or left to the context—rather, it is obligatorily interpreted as being an unspecifed person or group of people (e.g. Frantz 1971:41 for Blackfoot, Dahlstrom 1991:65 for Plains Cree, Clarke and MacKenzie 2005:1413 for Innu, and Lochbihler 2012:237 for Ojibwe). That is, it must be both unspecified and animate.

The fixed interpretation of the unspecified actor is indicated by the impossibility of realizing or replacing it with an overt nominal. Unlike an English passive, in which the agent can be made explicit through the addition of a by-phrase, the unspecified actor form is completely incompatible with an overt agent, as illustrated for Plains Cree in (14). (See also Valentine 2001:68 and Lochbihler 2012:237–8 for Ojibwe and Frantz 1971:40 for Blackfoot, as well as the Plains Cree data from Wolvengrey 2005 in (3) above.)
(14) Plains Cree (Dahlstrom 1991:65): overt agent impossible in unspecified actor form

   a. awîna ê=sâkihiht?
      who ê=love.XACT.3
      ‘Who is loved?’

   b. *awîna ê=sâkihiht omâmâwa?
      who ê=love.XACT.3 his.mother.4
      ‘Who is loved by his mother?’

The impossibility of an overt agent can be better represented by giving the unspecified actor form a transitive English translation. If (14a) is translated as ‘Who do people love?’ then the impossibility of (14b) is reflected in English as well: ‘Who do people love by his mother?’

The fixed interpretation of the unspecified agent follows if we posit that the syntactic representation contains an agent nominal with the relevant semantic properties, which appear to be animacy and non-referentiality. The presence of this non-referential agent nominal also explains why an overt agent such as omâmâwa ‘his mother’ in (14b) cannot be added, as a distinct agent is already present in the structure; since the unspecified agent is non-referential, it cannot be co-indexed with a referential nominal.

5.3.5 The unspecified actor is ranked in the Person Hierarchy

Further evidence that the unspecified actor is indeed some sort of nominal comes from its behaviour with respect to the Person Hierarchy: in the independent order, the unspecified actor patterns as though it has a unique rank on the hierarchy. The apparent ranking of the unspecified actor with respect to other person categories can only be coherently understood if the unspecified actor itself belongs to some sort of person category, which is not possible under a passive analysis in which the actor is simply absent.

For reference, the independent Person Hierarchy is repeated in (15). (Although I have argued that the effects of the hierarchy can be derived from person-sensitive agreement, the hierarchy remains descriptively accurate and is sufficient for the purposes of this section.)

(15) Independent-Order Person Hierarchy (§2.7)

\[
1/2 > 3 > 4
\]

According to the Theme Sign Selection Rule (§2.7), the inverse theme sign -ekw occurs when the object outranks the subject on the hierarchy; otherwise the theme sign is direct -a- (analyzed in this thesis as 3/OBJ agreement).
If the unspecified actor (represented as “X”) is indeed some sort of nominal, we can determine its rank on the Person Hierarchy by observing which theme sign occurs in unspecified actor forms: inverse \(-ekw\) will indicate that the X subject is lower-ranked than the object while direct \(-a\) will indicate that the X subject is higher-ranked. Interestingly, the outcome of this test is not uniform. The X—1 and X—2 forms contain \(-eko\), a variant of the inverse theme sign \(-ekw\) (Pentland 1999:242), as shown in (16).

**(16)** PA independent X—1 and X—2 forms are inverse \((-eko\))

\[
\begin{align*}
\text{a. X—1p} & \quad \text{ne-wa-pam-eko-hm-ena} \\
\text{b. X—2p} & \quad \text{ke-wa-pam-eko-hm-wa} \\
& \quad \text{1-see-INV(x)-PRES-1p} \\
& \quad \text{2-see-INV(x)-PRES-2p} \\
\end{align*}
\]

‘we are seen’

‘you (pl.) are seen’

Since these forms are inverse, the X subject must be lower-ranked on the hierarchy than the 1st/2nd-person objects, as represented in the partial hierarchy \(1/2 > X\). When we turn to the X—3 form, however, we surprisingly get the opposite result: the theme sign is direct \(-a\), as shown in (17). This result indicates that the X subject is higher-ranked on the hierarchy than the 3rd-person object, as represented in the partial hierarchy \(X > 3\).

**(17)** PA independent X—3 form is direct \((-a\))

\[
\begin{align*}
\text{X—3p} & \quad \text{wa-pam-a-waki} \\
& \quad \text{see-3OBJ-PRES-3p} \\
\end{align*}
\]

‘they are seen’

The two partial hierarchies combine to give the amended Person Hierarchy in (18), in which X is ranked between 1/2 and 3. As observed by a variety of Algonquianists (e.g. Pentland 1999:235; Valentine 2001:268), this ranking accounts for the fact that the X—1/2 forms are inverse while the X—3 form is direct.

**(18)** Independent-Order Person Hierarchy (amended to include X)

\[
\begin{array}{cccc}
1/2 & \rightarrow \text{X} & \rightarrow 3 & \rightarrow 4 \\
\text{INV} & \rightarrow & \text{DIR}
\end{array}
\]

The fact that the unspecified actor forms pattern as though they contain a subject that occupies a distinct rank on the Person Hierarchy is another reason to conclude that a subject truly does exist in the syntactic representation of such forms.
At this point, it is worth taking a brief aside to note that the split direct/inverse pattern exhibited by the unspecified actor forms is rather mysterious. Beyond adding “X” to the Person Hierarchy, the traditional Algonquianist framework offers no explanation for why the split pattern exists (Zúñiga 2006:113). Wolfart (1973:26), for example, simply classifies the direct and inverse unspecified actor forms as belonging to two separate paradigms. In recent theoretical work, Lochbihler (2012) has attempted to integrate the split pattern into a broader analysis of the direct-inverse system. Her proposal rests on inserting an “[X]” feature into the articulated representation of person features between [1/2] and [3], the same position that X occupies in the Person Hierarchy. Lochbihler’s proposed feature structure is shown in (19), along with its equivalent in the format that I have been using in this thesis.

(19) Addition of [uX] to the person probe (Lochbihler 2012:244)

<table>
<thead>
<tr>
<th>Lochbihler’s representation</th>
<th>Equivalent in this thesis</th>
</tr>
</thead>
</table>
| \[
\begin{array}{l}
u\pi \\
u3 \\
uX \\
u1 \\
u2
\end{array}
\] | \[
\begin{array}{l}
u\text{Person} \\
u\text{Proximate} \\
uX \\
u\text{Participant} \\
u\text{Addressee}
\end{array}
\] |

Placing [uX] in this position derives the correct outcome under Lochbihler’s analysis of theme signs. However, it is not clear how this positioning of [uX] is justified, as Lochbihler says little about the content of [uX] and does not explain how it fits into the entailment relations that otherwise govern the organization of person features in her model. I must conclude, then, that the addition of the [X] feature between [1/2] and [3] is no less stipulative than the arbitrary ranking of X between 1/2 and 3 in the Person Hierarchy. While it gets the right results, it gives no insight into why X should exhibit this split behaviour in the first place. Later in this chapter I will try to provide a deeper motivation for the peculiar patterning of X by relating it to the syntactic representation of the nominals themselves (§5.4 and 5.6).

5.3.6 The construction applies to intransitive verbs as well

The final argument that the unspecified actor form is not a passive involves the distribution of the form: it applies not only to transitive verbs, but to intransitive verbs as well. In the
independent order, the construction involves the removal of the inflection that would normally index the subject, while the conjunct order employs the same “passive” marker -en that appears in the transitive unspecified actor forms. The intransitive unspecified actor forms are illustrated in (20)–(21) along with regular 2p-subject intransitive forms for comparison.

(20) Independent intransitive forms
a. *ni-myi-hm-i*
   dance-PRES-X
   ‘there is dancing; people dance’

b. *ke-ni-myi-hm-wa*
   2-dance-PRES-2p
   ‘you (pl.) dance’

(21) Conjunct intransitive forms
a. *ni-myi-n-k-e*
   dance-XACT-X-sJV
   ‘if there is dancing; if people dance’

b. *ni-my-e-kw-e*
   dance-2p-sJV
   ‘if you (pl.) dance’

Such forms cannot involve passivization in the sense of promoting the object to the position normally occupied by the subject, as the verb has only a single argument to begin with. The applicability of the unspecified actor form to transitives thus further weakens the case for regarding the form as a passive construction.

5.3.7 Summary: The unspecified actor form is not a passive

In light of the evidence reviewed above, I follow Dryer (1996), Déchaine and Reinholtz (1998), Trommer (2006), and Lochbihler (2012) in concluding that the unspecified actor form is not a passive construction. Instead, it is an impersonal construction with a syntactic representation that includes a phonetically null non-referential agent nominal. Positing this agent nominal accounts for the fixed interpretation of the unspecified actor; in transitive forms, the presence of the agent nominal also prevents the theme from advancing to subject position, thus accounting for the morphological patterning of the theme as an object.

5.4 Representation of the unspecified actor

The previous section established that the unspecified actor form contains a distinct type of non-referential agent nominal, represented by Algonquianists as “X.” Before an analysis of the inflection of the unspecified actor forms can be developed, it is necessary to understand
how this “X” fits into the system of nominal features. In particular, I will consider two distinct types of nominal features: person features (§5.4.1) and D-features (§5.4.2).

5.4.1 Person features of the unspecified actor

In this thesis, I have followed Bejar and Rezac (2009) and Lochbihler (2012) in assuming the person feature representations in (22). All animate nominals have the feature [Person]; 1st- and 2nd-person nominals are further marked by the feature [Participant], while the broad class of 3rd-person nominals is divided into proximate animates (3), obviative animates (4), and inanimates (0), each with a progressively less rich person specification.

(22) Person features of Algonquian nominals (from §4.6.1)

<p>| | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>[Person]</td>
<td>[Person]</td>
<td>[Person]</td>
<td>[Person]</td>
</tr>
<tr>
<td>[Proximate]</td>
<td>[Proximate]</td>
<td>[Proximate]</td>
<td></td>
</tr>
<tr>
<td>[Participant]</td>
<td>[Participant]</td>
<td></td>
<td></td>
</tr>
<tr>
<td>[Addressee]</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

How does the unspecified actor X fit into this model? One component of the fixed interpretation of X is that it is animate (§5.3.4 above). Since I follow Lochbihler (2012) in assuming that all animate nominals have the feature [Person], X must at least be specified as [Person]. However, the next feature, [Proximate], cannot apply: the obviation system of Algonquian allows only a single proximate third person per clause (e.g. Aissen 1997:706–7), so the fact that X can co-occur with a proximate object, as in (23), indicates that X itself is not proximate.

(23) X co-occurs with proximate 3rd-person theme

X—3P  \( wa\-pam[-a]\-w\-aki \)

‘people see them; they are seen’

The features [Participant] and [Addressee] are also obviously inapplicable, as X is not normally interpreted as a 1st or 2nd person. I thus conclude that the person specification of X consists simply of [Person], as shown in (24).
This conclusion raises a problem, however, as X now has the same person specification as an obviative 3rd person (represented as “4” in this thesis). It cannot be the case that X and 4 are featurally identical. For one thing, unlike X, obviative nominals are not necessarily unspecified; it is entirely possible for an obviative nominal to be both overt and definite, as is the case for *uyuuh atimh* ‘this dog (obv.)’ in the East Cree example in (25).

(25) *Uu awaash miyeyimeu uyuuh atimh*

   this child 3—4  this.4  dog.4

   ‘This child (prox.) likes this dog (obv.).’

   (East Cree; Junker 2004:349)

Furthermore, X-subject and 4-subject forms are differentiated in agreement inflection, as illustrated by the forms in (26). Whereas an X-subject form takes the unspecified actor marker -en, a 4-subject form instead takes the obviative subject marker -ri (Bloomfield 1946:101). For comparison, I also show a 3-subject form, which takes neither marker.

(26) PA intransitive conjunct forms

   a. X-subject *ni-myj[-n]k-e*  ‘if people dance; if there is dancing’  
   b. 4-subject *ni-myj[li]t-e*  ‘if s/he (obv.) dances; if the other dances’  
   c. 3-subject *ni-myj-t-e*  ‘if s/he dances’

It seems, then, that despite having identical person specifications, X and 4 remain grammatically distinct. To account for the distinction between X and 4, I will turn to a second nominal dimension: D-features.
5.4.2 D-features of the unspecified actor

I will use the label “D-features” to refer to features that occur in the DP level, which I take to be the locus of features involving referentiality (see e.g. Déchaîne and Wiltschko 2002). Such features most obviously include definiteness, but I will suggest below that aspects of the obviative and absentative systems of Algonquian may be included as well.

Until this point, we have not needed to consider the status of the DP in Algonquian, as person features alone have been sufficient to account for the agreement facts. Before turning to the unspecified person (X), then, it is useful to consider the DP status of the more familiar specified persons (1, 2, 3, 4, 0). Here I will follow van Gelderen (2013), who proposes that in English, 3rd-person nominals are DPs while 1st/2nd-person nominals are simply PhiP, as shown in (27). Van Gelderen makes this proposal in order to account for the greater range of deictic features carried by 3rd persons.¹

(27) Structure of English nominals (van Gelderen 2013)

<table>
<thead>
<tr>
<th></th>
<th>1st/2nd person</th>
<th>3rd person</th>
</tr>
</thead>
<tbody>
<tr>
<td>a.</td>
<td>PhiP</td>
<td>DP</td>
</tr>
<tr>
<td></td>
<td>Phi</td>
<td>D</td>
</tr>
<tr>
<td></td>
<td>NP</td>
<td>PhiP</td>
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<td></td>
<td>Phi</td>
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<tr>
<td></td>
<td></td>
<td>NP</td>
</tr>
</tbody>
</table>

If van Gelderen’s proposal that only 3rd persons are DP is combined with the Algonquian person features from (24) above, we get the outcomes in (28). (I substitute PersP for van Gelderen’s PhiP.) In brief, 1st/2nd persons are PersP, animate 3rd persons (3 and 4) contain both DP and PersP, and inanimate 3rd-persons (0), which lack [Person], contain only DP.

(28) Structure of Proto-Algonquian nominals

<table>
<thead>
<tr>
<th></th>
<th>PersP</th>
<th>1</th>
<th>PersP</th>
<th>3</th>
<th>DP</th>
<th>4</th>
<th>DP</th>
<th>0</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Pers</td>
<td></td>
<td>Pers</td>
<td></td>
<td>DP</td>
<td></td>
<td>DP</td>
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<td>D</td>
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<td></td>
<td></td>
<td></td>
<td>PersP</td>
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</table>

¹Van Gelderen’s proposal is exactly the opposite of Déchaîne and Wiltschko’s (2002) proposal that English 3rd person pronouns are PhiP and 1st/2nd-person pronouns are DP. I adopt van Gelderen’s proposal because it fits better with the PA facts and thus has a better chance of being applicable to many Algonquian languages.
The proposal that 1st/2nd persons in Algonquian lack a DP layer is supported by the fact that 1st/2nd persons are not subject to the systems of obviative and absentative marking that apply to 3rd persons. Obviative marking encodes the relative salience of different 3rd-person discourse participants while absentative marking indicates that the referent of a 3rd-person nominal is absent from the discourse context (Pentland 2000). Since both types of marking involve the relation of nominals to the discourse context, it is plausible that they are both linked to the DP layer; in turn, the fact that both types of marking do not apply to 1st/2nd person nominals supports the proposed absence of a DP layer in such nominals.

The identification of the presence or absence of a DP layer as a microparameter in the representation of nominals gives us a way to distinguish unspecified actors (X) from animate obviatives (4). We saw above that X and 4 are identical with respect to person features: both are specified as [Pers]. The difference, I propose, is that while obviative 4 has a DP layer, unspecified X does not: it is simply a bare PersP. In addition to distinguishing X from 4, this proposal captures the interpretation of X, as the absence of a DP layer reflects the fact that X is completely non-referential.\(^4\) We can thus add the representation of X in (29) to the set of Proto-Algonquian nominal structures in (28) above.

(29) Structure of the Proto-Algonquian unspecified actor

\[
\begin{array}{c}
X \\
\text{PersP} \\
| \\
\text{Pers}
\end{array}
\]

An important outcome of the proposed nominal structures is that X forms a natural class both with 1st/2nd-person nominals and with 3rd-person nominals. With 1st/2nd persons, X shares the absence of a DP layer; with 3rd persons, X shares the absence of a [Participant] feature. The ambivalent class membership of X is illustrated in (30).

(30) Ambivalent class membership of X

<table>
<thead>
<tr>
<th>NOMINALS THAT LACK A DP LAYER</th>
<th>NOMINALS THAT LACK [PARTICIPANT]</th>
</tr>
</thead>
<tbody>
<tr>
<td>1, 2</td>
<td>3, 4, 0</td>
</tr>
<tr>
<td>X</td>
<td>X</td>
</tr>
</tbody>
</table>

\(^4\)If the absence of a DP layer is what makes X non-referential, why does it not have the same effect for 1st/2nd persons, which I have also proposed are PersP rather than DP? The referentiality of 1st/2nd persons is guaranteed by their [Participant] feature, which anchors them to the discourse context.
I will show below (§5.6) that the ambivalent class membership of X gives us a way to account for the puzzling split direct/inverse pattern in the independent-order unspecified actor forms without assigning X to an arbitrary rank between 1/2 and 3 in the Person Hierarchy.

Another important outcome of the proposed nominal structures is that while X has properties in common with both 1st/2nd persons and 3rd persons, there is also one respect in which it is distinct from both classes: 1st/2nd persons are anchored to the discourse context by the [Participant] feature and 3rd persons are anchored to the context by the DP layer, but neither anchoring device exists for X. It is this property, I suggest, that explains the “defectiveness” of X, as it is unique among nominals in being entirely unanchored.

Finally, in support of the proposal that X, like 1st/2nd person, is structurally represented as PersP, I point out two respects in which X patterns grammatically with 1st/2nd person. The first pattern involves allomorphy of the present-tense “formative” morpheme that appears in the Proto-Algonquian independent order, which will be examined more closely in Chapter 6. In intransitive forms, the formative is realized as -w’ when the sole argument is 3rd-person and as -ehm when the sole argument is 1st/2nd-person, as shown in (31).

(31) Allomorphy of the formative (PA independent intransitive)

<table>
<thead>
<tr>
<th>Subject</th>
<th>Formative</th>
<th>Meaning</th>
</tr>
</thead>
</table>
| a. 3 | -w’       | ni-myj[-w’]aki  
dance-PRES-3p  
‘they (anim.) dance’ |
| b. 1 | -ehm      | ne-ni-myj[-hm]ena- 
dance-PRES-1p  
‘we dance’ |
| 0      | -w’       | pankihθen[-w’]ari  
fall-PRES-0p  
‘they (inan.) fall’ |
| 2      | -ehm      | ke-ni-myj[-hm]wa- 
dance-PRES-2p  
‘you (pl.) dance’ |

In an intransitive unspecified actor form, in which the sole argument is X, the formative is realized as -ehm, just as in a 1st/2nd-person form, as shown in (32).

(32) X subject: -ehm

<table>
<thead>
<tr>
<th>Formative</th>
<th>Meaning</th>
</tr>
</thead>
</table>
| ni-myj[-hm]i  
dance-PRES-X  
‘people dance; there is dancing’ |

With respect to the conditioning of the formative, then, X and 1st/2nd-person pattern together in triggering the -ehm allomorph (for reasons that will be explored in Chapter 6).
The second example in which X patterns with 1st/2nd person comes from the Plains Algonquian language Blackfoot. On AI and TI verbs in Blackfoot, the X suffix has become syncrretic with the 1st-person plural inclusive suffix (notated in this thesis as 21p); both suffixes have the form -o’p. Due to this unusual syncretism, aipasskaa_o’pa, a form of the verb meaning ‘to dance’, can be interpreted either as ‘we (incl.) are dancing’ (with 21p subject) or ‘there is dancing’ (with X subject) (Frantz 1976:202). The proposed analysis of 1st/2nd persons and X as the natural class of PersP nominals gives 21p and X a shared grammatical property, thus making their syncretism in Blackfoot less surprising than it first appears.

In summary, this section has proposed that the subject of the unspecified actor forms is represented as a bare PersP. This representation accounts for the interpretation of the unspecified actor and aligns well with its unusual constellation of grammatical properties. The discussion has also identified a more general microparameter of agreement: the status of the nominals targeted by agreement as DP or PersP.

5.5 Conjoint unspecified actor forms

With the necessary background in place, I will now develop an analysis of the patterning of theme signs in the unspecified actor forms. As shown above (§5.3.1), the marking of these forms is entirely different in the conjunct and independent orders: the conjunct employs a dedicated marker -en while the independent employs the familiar direct and inverse theme signs -a∙ and -ekw (although the inverse theme sign takes the variant form -eko∙). Despite these differences, I will show that both patterns fit well with the “two-headed” model of theme signs (Voice0 and Infl0) developed in Chapter 4. I will propose that the conjunct marker -en is a special spell-out of Infl0 that is dedicated to the unspecified actor form. The independent pattern then follows from the removal of this special spell-out, which simplifies the morphological rules and allows the extension of the usual direct-inverse marking.

The full set of unspecified actor forms for TA verbs in the conjunct order is shown in (33). The special unspecified actor marker -en occurs throughout the paradigm, as do the object-agreement theme signs -i 1OBJ, -edΘ 2OBJ, and -a∙ 3/4OBJ. (The one exception to this statement is the X—3 form, in which -a∙ does not appear; however, we have already established that -a∙ has a null allomorph before vowel-initial suffixes (§2.6.3.2), so the appearance of this null allomorph before -en is unsurprising.) The inverse theme sign -ekw never appears.
(33) Conjunct unspecified actor forms (Bloomfield 1946:101–2; Goddard 1979a:88; Proulx 1990:115)

<table>
<thead>
<tr>
<th>Stem</th>
<th>T.S.</th>
<th>XACT</th>
<th>AGR</th>
<th>Mode</th>
</tr>
</thead>
<tbody>
<tr>
<td>X—1s</td>
<td>wa-pam-see (t.x)</td>
<td>-i</td>
<td>-n</td>
<td>-k</td>
</tr>
<tr>
<td></td>
<td></td>
<td>10bj</td>
<td>XACT</td>
<td></td>
</tr>
<tr>
<td>X—1p</td>
<td>wa-pam-see (t.x)</td>
<td>-i</td>
<td>-n</td>
<td>amenk</td>
</tr>
<tr>
<td></td>
<td></td>
<td>10bj</td>
<td>XACT</td>
<td></td>
</tr>
<tr>
<td>X—21p</td>
<td>wa-pam-see (t.x)</td>
<td>-eθ</td>
<td>-en</td>
<td>-ankw</td>
</tr>
<tr>
<td></td>
<td></td>
<td>20bj</td>
<td>XACT</td>
<td></td>
</tr>
<tr>
<td>X—2s</td>
<td>wa-pam-see (t.x)</td>
<td>-eθ</td>
<td>-en</td>
<td>-k</td>
</tr>
<tr>
<td></td>
<td></td>
<td>20bj</td>
<td>XACT</td>
<td></td>
</tr>
<tr>
<td>X—2p</td>
<td>wa-pam-see (t.x)</td>
<td>-eθ</td>
<td>-en</td>
<td>-a·kw</td>
</tr>
<tr>
<td></td>
<td></td>
<td>20bj</td>
<td>XACT</td>
<td></td>
</tr>
<tr>
<td>X—3s</td>
<td>wa-pam-see (t.x)</td>
<td>Ø (-a·)</td>
<td>-en</td>
<td>-t</td>
</tr>
<tr>
<td></td>
<td></td>
<td>3/40bj</td>
<td>XACT</td>
<td></td>
</tr>
</tbody>
</table>

How can we account for the behaviour of theme signs in these forms? For regular active forms, I proposed in Chapter 4 that two theme sign positions exist: a higher head Infl for inverse -ekw and a lower head Voice for the object-agreement theme signs -i, -eθ, -a·. The spell-out of these two positions is complementary, as indicated in (34).

(34) Complementary spell-out of theme signs in regular active forms

\[
\begin{align*}
\text{NON-INVERSE} & \quad \text{stem} + [\text{Voice}^0] \quad \text{Infl}^0 \\
\text{INVERSE} & \quad \text{stem} + [\text{Ø}] \quad + [\text{-ekw}]
\end{align*}
\]

To account for this complementarity, I posited a dependency between the spell-out rules for Infl and Voice: when both heads have the same person feature—a situation that arises only when they both agree with the object—Infl is spelled out as inverse -ekw and Voice receives a null spell-out. Otherwise, Voice is spelled out as object agreement. The relevant spell-out rules are repeated in (35) and (36) for reference.

(35) Spell-out rule for Infl (from §4.3)

\[
\begin{align*}
\text{Infl}^0_{\text{[øPers]}} & \leftrightarrow -ekw / \text{Voice}^0_{\text{[øPers]}} \quad (= \text{inverse form}) \\
& \leftrightarrow \text{Ø} / \text{elsewhere} \quad (= \text{non-inverse form})
\end{align*}
\]
Chapter 5

(36) Spell-out rule for Voice⁰ (from §4.3)

\[
\begin{align*}
\text{Voice}^0_{[\alpha\text{Pers}]} & \quad \leftrightarrow \quad \emptyset \quad / \quad \text{Infl}^0_{[\alpha\text{Pers}]} \quad (= \text{inverse form}) \\
\text{Voice}^0_{[\text{Pers, Prox, Part, Addr}]} & \quad \leftrightarrow \quad -e\theta \quad (= 2\text{nd-person object}) \\
\text{Voice}^0_{[\text{Pers, Prox, Part}]} & \quad \leftrightarrow \quad -i \quad (= 1\text{st-person object}) \\
\text{Voice}^0_{[\text{Pers}]} & \quad \leftrightarrow \quad -a\cdot \quad (= 3/4\text{th-person object})
\end{align*}
\]

These rules require two modifications in order to account for the conjunct unspecified actor forms: (1) the special unspecified actor marker -en must be added as a spell-out of Infl⁰, and (2) the -en marker must be excluded from complementary spell-out with Voice⁰. The addition of -en as a spell-out of Infl⁰ is indicated by the absence of the usual spell-out of Infl⁰ as inverse -ekw in the conjunct unspecified actor forms; instead, the special -en marker appears in the same morphological slot. The exclusion of the -en marker from complementary spell-out is indicated by the fact that, unlike inverse -ekw, the -en marker occurs together with the object-agreement theme signs, as shown in (33) above. The picture that results from these modifications is sketched in (37).

(37) Spell-out of theme signs (Proto-Algonquian TA conjunct)

\[
\begin{array}{ccc}
\text{Voice}^0 & \quad \text{Infl}^0 \\
\text{NON-INVERSE} & \quad \text{stem} + \quad -i/-e\theta/-a\cdot \quad + \quad \emptyset \quad + \quad \text{agreement} \\
\text{INVERSE} & \quad \text{stem} + \quad \emptyset \quad + \quad \text{ekw} \quad + \quad \text{agreement} \\
\text{UNSPEC ACTOR} & \quad \text{stem} + \quad -i/-e\theta/-a\cdot \quad + \quad \text{en} \quad + \quad \text{agreement}
\end{array}
\]

Before considering the implementation of these modifications, it is worth noting that this general analysis provides additional support for the “two-headed” model of theme signs proposed in this thesis, as both heads are overtly realized in the unspecified actor form. The possibility of such a form is predicted by the two-headed model.

In order to implement the spell-out of the special -en marker in Infl⁰, I will make one addition to my assumptions about the structure of the Algonquian clause: I propose that the agent-introducing head Voice⁰ in fact has two flavours: Voice⁰_{ACTV}, which occurs in regular active clauses, and Voice⁰_{PSSV}, which occurs in unspecified actor forms. (Although I have argued that such forms are not in fact passive, the abbreviation ‘PSSV’ is a convenient mnemonic.) Voice⁰_{PSSV}, while not truly passive, encodes some degree of attenuated agentivity, as it is only capable of introducing the defective non-referential agent X. The resulting syntactic structure of an unspecified actor form is compared with that of a regular active form in (38).
Syntactic structures with different flavours of Voice

a. UNSPECIFIED ACTOR FORM (Voice\textsuperscript{0}\textsubscript{psv})

\[
\text{InflP} \
\quad \text{Infl} \quad \text{VoiceP} \\ 
\quad \text{(PersP)} \quad \text{Voice}_{\text{psv}} \quad \text{vP}
\]

b. REGULAR ACTIVE FORM (Voice\textsuperscript{0}\textsubscript{actv})

\[
\text{InflP} \
\quad \text{Infl} \quad \text{VoiceP} \\ 
\quad 1/2/3/4/0 \quad \text{(PersP or DP)} \quad \text{Voice}_{\text{actv}} \quad \text{vP}
\]

These structures enable a simple account of the appearance of the special -en marker in the unspecified actor forms: -en is an allomorph of Infl\textsuperscript{0} that occurs after Voice\textsuperscript{0}\textsubscript{psv}. This allomorph can be accommodated by adding a condition to the spell-out rule for Infl\textsuperscript{0}, as shown in (39). The rule now states that Infl\textsuperscript{0} is spelled out as -en whenever the “passive” variant of Voice\textsuperscript{0} is present; otherwise (i.e. in regular active clauses) the rule applies as it did before, spelling out -ekw in the inverse and Ø in the direct.

\[
\text{Spell-out rule for Infl}^0 \text{ (modified to add -en)}
\]

\[
\begin{align*}
\text{Infl}^0 & \quad \leftrightarrow \quad -en \quad / \quad \text{Voice}_{\text{psv}} \quad \underline{\text{= unspecified actor form}} \\
\text{Infl}^0_{[\text{aPers}]} & \quad \leftrightarrow \quad -ekw \quad / \quad \text{Voice}_{\text{[aPers]}} \quad \underline{\text{= inverse form}} \\
\text{Infl}^0 & \quad \leftrightarrow \quad \emptyset \quad / \quad \text{elsewhere} \quad \underline{\text{= non-inverse form}}
\end{align*}
\]

This analysis reveals a certain consistency in the spell-out of Infl\textsuperscript{0}: in both cases, it is dependent upon properties of Voice\textsuperscript{0}. This consistency helps to confirm the validity of regarding -en and -ekw as exponents of the same category. At the same time, the consistent dependency of Infl\textsuperscript{0} upon Voice\textsuperscript{0} also raises the question of why these two heads in particular should exhibit such a dependency, rather than, for example, T\textsuperscript{0} and Infl\textsuperscript{0}. Although this is an important question, I must leave the exploration of possible answers to future work.

The modified spell-out rule in (39) accounts for the spell-out of Infl\textsuperscript{0} as -en in unspecified actor forms, but we must also explain the lack of complementarity between -en (Infl\textsuperscript{0}) and the object-agreement theme signs (Voice\textsuperscript{0}), which, as shown in (37) above, can both appear together in an unspecified actor form. Although in principle it is not unusual that two distinct heads should both be spelled out, we have seen that the spell-out of Infl\textsuperscript{0} as the inverse theme sign -ekw always overrides the spell-out of Voice\textsuperscript{0}. Why, then, does the spell-out of Infl\textsuperscript{0} as the special -en marker not have the same effect?
To account for the absence of the “override” effect in unspecified actor forms, I will make a minor adjustment to the spell-out rule for Voice₀. In Chapter 4, the override effect was formalized by the first condition of the spell-out rule in (40), which effectively states that Voice₀ receives a null spell-out in the context where -ekw appears.

\[(40)\] **Spell-out rule for Voice₀**

\[
\begin{align*}
\text{Voice₀}[^{[\alpha\text{Pers}]}) & \leftrightarrow \emptyset / \text{Infl₀}^{[\alpha\text{Pers}]}} & (= \text{inverse form}) \\
\text{Voice₀}[^{[\text{Pers, Prox, Part, Addr}]}) & \leftrightarrow -e\theta & (= \text{2nd-person object}) \\
\text{Voice₀}[^{[\text{Pers, Prox, Part}]}) & \leftrightarrow -i & (=1\text{st-person object}) \\
\text{Voice₀}[^{[\text{Pers}]}) & \leftrightarrow -a\cdot & (=3\text{rd/4th-person object})
\end{align*}
\]

Since the unspecified actor form is distinguished by the presence of Voice₀_{pssv} rather than Voice₀_{actv}, we can prevent the override condition from applying in unspecified actor forms by limiting its application to the “active” flavour of Voice₀, as shown in (41). (I show only the override condition here; the remainder of the rule remains unchanged.)

\[(41)\] **Spell-out rule for Voice₀ (first condition, modified)**

\[
\begin{align*}
\text{Voice₀}^{[\alpha\text{Pers}]}) & \leftrightarrow \emptyset / \text{Infl₀}^{[\alpha\text{Pers}]}} & (\text{does not apply to Voice₀}_{pssv})
\end{align*}
\]

This modification renders the override condition irrelevant in unspecified actor forms, as they do not contain Voice₀_{actv}. The remainder of the rule will thus apply unimpeded, spelling out Voice₀ as an object-agreement theme sign in all unspecified actor forms, as desired.

In summary, this section has presented a fairly straightforward account of the patterning of theme signs in conjunct unspecified actor forms. The core pattern—the appearance of a special -en marker—fits neatly with the two-headed approach to theme signs advanced in this thesis; the remaining details are matters of morphology that can be accommodated by modifying the spell-out rules. These modifications have made the spell-out rules more complex, as they now contain special conditions dedicated to the unspecified actor form. The next section will show that the changes to the unspecified actor form in the independent order can be understood quite simply as resulting from the loss of these special conditions.

### 5.6 Independent unspecified actor forms

The unspecified actor forms in the independent order, shown in (42), present an entirely different system from that of the conjunct. Instead of the dedicated -en marker, the forms instead involve the familiar direct and inverse theme signs, although the inverse theme sign
takes the variant form -eko-, glossed here as ‘INV(X)’, rather than its usual form -ekw. The mysterious property of these forms, discussed in Section 5.3.5 above, is the split patterning of their theme signs: the X—1 and X—2 forms are inverse while the X—3 forms are direct.


<table>
<thead>
<tr>
<th>PFX</th>
<th>STEM</th>
<th>T.S.</th>
<th>FTV</th>
<th>INNER</th>
<th>OUTER</th>
</tr>
</thead>
<tbody>
<tr>
<td>(X—)1s</td>
<td>ne-</td>
<td>wa-pam-</td>
<td>-eko-</td>
<td>-hm</td>
<td>—</td>
</tr>
<tr>
<td>(X—)2s</td>
<td>ke-</td>
<td>wa-pam-</td>
<td>-eko-</td>
<td>-hm</td>
<td>—</td>
</tr>
<tr>
<td>(X—)1p</td>
<td>ne-</td>
<td>wa-pam-</td>
<td>-eko-</td>
<td>-hm</td>
<td>-ena-</td>
</tr>
<tr>
<td>(X—)21p</td>
<td>ke-</td>
<td>wa-pam-</td>
<td>-eko-</td>
<td>-hm</td>
<td>-ena</td>
</tr>
<tr>
<td>(X—)2p</td>
<td>ke-</td>
<td>wa-pam-</td>
<td>-eko-</td>
<td>-hm</td>
<td>-wa-</td>
</tr>
<tr>
<td>(X—)3s</td>
<td>—</td>
<td>wa-pam-</td>
<td>-a-</td>
<td>-w</td>
<td>—</td>
</tr>
<tr>
<td>(X—)3p</td>
<td>—</td>
<td>wa-pam-</td>
<td>-a-</td>
<td>-w</td>
<td>-aki</td>
</tr>
</tbody>
</table>

Before an analysis is developed, the status of the apparent inverse theme sign in the X—1 and X—2 forms must be considered, as we need to determine whether or not it should be treated as a true inverse marker. Although the -eko- form is clearly related to the inverse marker -ekw, the source of the discrepant final -o- has not been identified with certainty in the philological literature. The best guess is that of Pentland (1999:242), who assumes that the standard inverse marker -ekw did originally occur in these forms, as shown in (43a). Subsequently, Pentland suggests, the -w formative that appears in X—3 forms may have been generalized to the entire paradigm by analogy, as shown in (43b), with coalescence of the resulting -ekw-w-e sequences giving the form -eko-, as shown in (43c).

5In these forms, a strikeout (i.e. -hm) indicates material that can be internally reconstructed for Pre-Proto-Algonquian but had been lost due to word-final deletion by the time of Proto-Algonquian proper.
A possible explanation for -ekw > -eko· (Pentland 1999:242)

<table>
<thead>
<tr>
<th>a. STAGE 1</th>
<th>b. STAGE 2</th>
<th>c. STAGE 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>(inverse -ekw)</td>
<td>(generalization of -w)</td>
<td>(coalescence to -o·)</td>
</tr>
<tr>
<td>THEME</td>
<td>FORMATIVE</td>
<td>THEME</td>
</tr>
<tr>
<td>X—1, X—2</td>
<td>-ekw</td>
<td>-ehm</td>
</tr>
<tr>
<td></td>
<td>INV</td>
<td>INV</td>
</tr>
<tr>
<td>X—3</td>
<td>-a·</td>
<td>-w</td>
</tr>
</tbody>
</table>

It seems, then, that the -eko· marker did indeed originate as a true inverse theme sign. It is possible, of course, that certain daughter languages may have reanalyzed the -eko· form as a distinct unspecified actor marker, thus severing the connection with inverse -ekw. In such languages, -eko· can receive an analysis along the lines proposed for conjunct -en in the preceding section, thereby sidestepping the issue of the mysterious split direct-inverse pattern. However, in at least the initial stage of Proto-Algonquian shown in (43a) above, the inverse theme sign truly was present, and thus the split direct-inverse pattern truly did exist. Any complete analysis of Algonquian morphosyntax must therefore be able to account for it.

Descriptively, the split direct-inverse pattern can be explained by ranking the unspecified subject X between 1/2 and 3 in the Person Hierarchy. As illustrated in (44), this ranking accounts for the fact that X—1 and X—2 are inverse (-eko·) while X—3 is direct (-a·).

(44) Independent-order Person Hierarchy (amended to include X)

\[
\begin{array}{c}
1/2 > X > 3 > 4 \\
\text{INV} \quad \text{DIR}
\end{array}
\]

However, the ranking of X in (44) is entirely arbitrary and thus provides no real insight. I will instead propose that the split direct-inverse pattern results from the interaction of the “X” person with the agreement operations that underlie the direct-inverse system.

Let us first consider the X—1 and X—2 inverse forms. Given the analysis developed in Chapter 4, an X—1 form would begin with the syntactic structure in (45): v\(^0\) introduces the 1st-person patient while Voice\(^0\) introduces the unspecified X agent.\(^6\)

---

\(^6\)I will not use the Voice\(^0\)_{psv} notation that I adopted in the preceding section because it is possible to account for the independent-order pattern without appealing to the Voice\(^0\)_{psv}-Voice\(^0\)_{actv} distinction.
(45) VoiceP in an independent-order X—1 form

```
VoiceP
  X
  [Pers] Voice
      [uPers] vP
        1 [Pers
            Prox
            Part]
```

The [uPers] probe on Voice\(^0\) then agrees with the object that it c-commands, which raises to Spec-VoiceP to satisfy the [EPP] feature, as shown in (46).

(46) Agreement in VoiceP in an independent-order X—1 form

```
VoiceP
  1
  [Pers
    Prox
    Part]

  X
  [Pers] Voice
      [uPers] vP
        1 [Pers
            Prox
            Part]
```

The Infl\(^0\) head is then merged. In the independent order, Infl\(^0\) probes for [uPers, uProx, uPart] (§4.3), and it agrees with whichever of the specifiers of VoiceP better satisfies this feature structure—in this case, the 1st-person object, as shown in (47).

(47) Agreement in InflP in an independent-order X—1 form

```
InflP
  Infl
    [uPers
      uProx
      uPart]

     VoiceP
       1 [Pers
           Prox
           Part]
```

...
The outcome of this derivation is that $\text{Infl}^0$ and $\text{Voice}^0$ both agree with the 1st-person object. In the analysis proposed in Chapter 4, this is exactly the context in which the inverse theme sign -ekw occurs. The appearance of the inverse theme sign in the independent X—1 and X—2 forms thus follows directly from the general rules that govern the spell-out of theme signs in the independent order (§ 4.3). Unlike in the conjunct order (§ 5.5), no special rules need to be added to the analysis.

When we turn to the independent X—3 form, however, the outcome is less straightforward. In this form, after $\text{Voice}^0$ agrees with the 3rd-person object, the probe on $\text{Infl}^0$ must choose between X and 3, as shown in (48).

(48) $\text{InflP}$ prior to agreement in an independent X—3 form

\[
\begin{array}{c}
\text{InflP} \\
\text{Infl} \\
[\text{uPers} \\
\text{uProx} \\
\text{uPart}] \\
\text{VoiceP} \\
3 \\
[\text{Pers} \\
\text{Prox}] \\
\text{X} \\
\text{…}
\end{array}
\]

Since the 3rd-person object is a better match for the probe on $\text{Infl}^0$, we would expect $\text{Infl}^0$ to agree with the object, just as it does in the X—1 and X—2 forms, thus making the X—3 form inverse as well. However, this cannot be correct, as it is instead the direct theme sign -a that appears in the X—3 form. Since the form is direct, it must somehow be the case that $\text{Infl}^0$ agrees with the unspecified X subject in this form, not the 3rd-person object, even though the 3rd-person object is a better match for the person probe. But how can this be?

The answer, I propose, comes from the syntactic representations of Proto-Algonquian nominals that were arrived at in Section 5.4. In that section, I argued that 3rd-person nominals are DP while the unspecified X nominal is PersP. The structure in (48) can thus be represented in greater detail as in (49).
In general, I have argued that it is the equidistance of the two specifiers of VoiceP that allows the direct-inverse system of Algonquian to exist, as the symmetry of the two specifiers with respect to locality allows the target of agreement to be determined by other, less commonly-observed factors such as featural richness. In (49), however, the person features of the two specifiers are not symmetrical with respect to the person probe on Infl⁰: the PersP layer of the 3rd-person object is separated from Infl⁰ by a DP layer that is not present on the unspecified subject. In this situation, I suggest that locality becomes relevant once again: since the person features of X are closer to Infl⁰ than those of 3 are, locality dictates that the person probe on Infl⁰ must agree with X. It now follows that the X—3 form is direct rather than inverse, since Voice⁰ and Infl⁰ agree with different arguments: Voice⁰ agrees with the 3rd-person object while Infl⁰ agrees with the unspecified X subject. The result is direct morphology, as the inverse theme sign appears only when both probes agree with the object (§4.3). We have thus succeeded in deriving the mysterious split direct-inverse pattern from more general principles, without stipulating an arbitrary ranking of “X.”

My proposal that a person probe will favour PersP over an equidistant DP holds even if we adopt a model in which all of the features within a DP are collected on the head D, as proposed by Danon (2011). Such a model may be necessary if we consider the DP to be a PHASE whose internal structure cannot be accessed by outside operations. Even under such a model, however, it is still the case that in a DP, the person feature is subordinate to the category label D, whereas in a PersP, the person feature is itself the category label. The person feature of PersP thus continues to be more accessible to a person probe than that of an equidistant DP, so locality will continue to favour PersP over an equidistant DP.
For future reference, I will refer to this proposal as the “Feature Locality Hypothesis”, which is stated in (50) along with its more concrete corollary in (51).

(50) Feature Locality Hypothesis
A goal whose category label matches the feature targeted by a probe will be favoured over an equidistant goal in which the targeted feature is more deeply embedded.

(51) Corollary of the Feature Locality Hypothesis
A person probe will favour PersP over an equidistant DP.

The following section will consider the implications of the Feature Locality Hypothesis for the analysis of the core theme sign system developed in Chapter 4. Before continuing, however, it is interesting to compare the analysis of the independent-order unspecified actor forms with that proposed for the conjunct in the preceding section. In the independent, the morphology of the theme signs follows directly from the general spell-out rules that were formulated in Chapter 4; there is no trace of the special rules that had to be added above for the conjunct. This difference gives us an additional insight into the innovation of the independent order: as part of the dramatic morphosyntactic change, the special morphological rules dedicated to the unspecified actor forms were lost. This simplification allowed the more general rules governing theme signs to take over, thereby extending direct-inverse marking to the unspecified actor forms in place of the original dedicated -en marker. This extension requires no modification of the general theme sign rules. The only unexpected outcome—the split direct-inverse pattern—turns out to follow from an independent factor: the representation of the unspecified actor as PersP rather than DP. The simplicity of this diachronic account is a benefit of the proposed approach to theme signs.

5.7 A reconsideration of the probe on Infl

In light of the Feature Locality Hypothesis and the proposal that 1st/2nd-person nominals are PersP rather than DP in Proto-Algonquian, it is necessary to revisit the analysis of TA theme signs proposed in Chapter 4 in order to determine whether it is compatible with these new assumptions. In the independent order (§5.7.1), the earlier analysis is not adversely affected, but the new assumptions allow a simpler alternative analysis as well: rather than probing for \([u\text{Person}, u\text{Proximate}, u\text{Participant}]\), Infl\(^0\) may probe only for \([u\text{Person}, u\text{Proximate}]\). In the conjunct order, however (§5.7.2), the earlier analysis no longer works, and it must be repaired by adding a \([u\text{D}]\) feature to the probe. I will show that this forced addition is beneficial, as it
also accounts for the patterning of theme signs in the inanimate actor forms (§5.7.3), which was not previously explained. The revised analysis also enables a more elegant account of the diachronic relationship between the conjunct and independent orders (§5.7.4).

5.7.1 Reconsidering the Infl probe in the independent order

I have proposed that the Algonquian inverse arises when Infl\(^0\) agrees with the object rather than the subject, thus gaining the same person features as the object-agreement head Voice\(^0\). The Feature Locality Hypothesis does not affect this core proposal, but it does give us an alternative way to derive the contexts in which Infl\(^0\) agrees with the object in the independent order. In particular, it allows us to posit the slightly less articulated probe \([uPerson, uProximate]\). To show how this is the case, I will compare how the two analyses apply to the full range of independent TA forms: (1) non-local forms, (2) you-and-me forms, and (3) mixed forms.

In the non-local forms (3—4 and 4—3), the two analyses are equivalent. Since both arguments are DP, the Feature Locality Hypothesis does not apply, as it is only relevant when one argument is DP and the other is PersP. The \([uProx]\) subfeature will thus favour the proximate 3rd-person argument in both cases, as sketched in (52).

(52) Non-local forms: \([uProx]\) selects the 3 argument under both analyses

\[
\begin{align*}
\text{a. ORIGINAL ANALYSIS} & \quad \text{b. ALTERNATIVE ANALYSIS (no \([uPart]\))} \\
\text{Infl}^0 & \quad [uPers] & \quad \text{DP} \quad [uPers] \\
\text{uProx} & \quad \text{DP} \quad \text{Pers} & \quad \text{DP} \quad \text{Pers} \\
\text{uPart} & \quad \text{Pers} & \quad \text{Prox} & \quad \text{Prox} \\
\end{align*}
\]

The two analyses are equivalent in the you-and-me forms (1—2 and 2—1) as well. Feature locality is again irrelevant, as both arguments are PersP. Under either analysis, the two arguments are equally good matches for the probe’s features, so the probe agrees with both.

(53) You-and-me forms: probe agrees with both arguments under both analyses

\[
\begin{align*}
\text{a. ORIGINAL ANALYSIS} & \quad \text{b. ALTERNATIVE ANALYSIS (no \([uPart]\))} \\
\text{Infl}^0 & \quad \text{PersP} \quad \text{PersP} \\
\text{uPers} & \quad \text{Pers} & \quad \text{Pers} \\
\text{uProx} & \quad \text{Prox} & \quad \text{Prox} \\
\text{uPart} & \quad \text{Part} & \quad \text{Part} \\
\end{align*}
\]
In mixed forms (1/2—3 and 3—1/2), however, the two analyses apply differently, even though they both correctly result in Infl\(^0\) choosing the 1st/2nd-person argument. Under the original analysis, the 1st/2nd-person argument is privileged by the \([u\text{Participant}]\) sub-feature, which is lacking on the 3rd-person argument. The 1st/2nd-person argument is thus selected because it is a better match. Under the alternative analysis, however, the \([u\text{Participant}]\) feature is no longer present, and both arguments are an equally good match for the \([u\text{Pers}, u\text{Prox}]\) probe. However, since the 1st/2nd-person argument is a PersP while the 3rd-person argument is a DP, the Feature Locality Hypothesis states that the PersP will be favoured, as its person features are structurally closer to Infl\(^0\) than those of the DP are. The 1st/2nd-person argument is thus selected due to feature locality.

\[(54)\] Mixed forms: same result, but for different reasons

<table>
<thead>
<tr>
<th></th>
<th>ORIGINAL ANALYSIS:</th>
<th>ALTERNATIVE ANALYSIS (no ([u\text{Part}])):</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1 is better match for probe</td>
<td>1 favoured by feature locality (PersP over DP)</td>
</tr>
<tr>
<td>Infl(^0)</td>
<td>[uPers]</td>
<td>[uPers]</td>
</tr>
<tr>
<td>uPers</td>
<td>[Pers]</td>
<td>[Pers]</td>
</tr>
<tr>
<td>uProx</td>
<td>[Prox]</td>
<td>[Prox]</td>
</tr>
<tr>
<td>uPart</td>
<td>[Part]</td>
<td>[Part]</td>
</tr>
<tr>
<td></td>
<td>DP(_3^\text{rd})</td>
<td>DP(_3^\text{rd})</td>
</tr>
</tbody>
</table>

Although the two analyses get the same results, the revised analysis in which Infl\(^0\) probes only for \([u\text{Pers}, u\text{Prox}]\) is preferable, as it simplifies the overall model: since the result in (54) can be obtained by the Feature Locality Hypothesis, and since we require the Feature Locality Hypothesis for independent reasons, there is no need to posit an additional \([u\text{Participant}]\) feature on the probe, as it no longer makes a contribution to the analysis. I accordingly revise the analysis of the independent order by removing the \([u\text{Participant}]\) feature from Infl\(^0\).

### 5.7.2 Reconsidering the Infl probe in the conjunct order

In the conjunct order, the Feature Locality Hypothesis disrupts the original analysis more seriously. The non-local forms (3—4 and 4—3) and you-and-me forms (1—2 and 2—1) remain unchanged for the same reason as in the independent order: the two arguments are symmetrical with respect to the PersP/DP distinction. The problem in the conjunct order arises with the mixed forms. Recall, first, that the mixed forms pattern differently in the conjunct and the independent. In the independent, the mixed forms with 3rd-person subjects are inverse (-ekw), but in the conjunct they are not; they instead take the object-agreement theme signs -i (1OBJ) and -eθ (2OBJ), as summarized in (55).
(55) Theme signs in mixed forms

<table>
<thead>
<tr>
<th></th>
<th>INDEPENDENT</th>
<th>CONJUNCT</th>
</tr>
</thead>
<tbody>
<tr>
<td>1—3</td>
<td>-a· (3OBJ)</td>
<td>-a· (3OBJ)</td>
</tr>
<tr>
<td>2—3</td>
<td>-a· (3OBJ)</td>
<td>-a· (3OBJ)</td>
</tr>
<tr>
<td>3—1</td>
<td>-ekw (INV)</td>
<td>-i (1OBJ)</td>
</tr>
<tr>
<td>3—2</td>
<td>-ekw (INV)</td>
<td>-eθ (2OBJ)</td>
</tr>
</tbody>
</table>

Under the original analysis (§4.5), the independent 3—1/2 forms are inverse because the 1st/2nd-person object is a better match for the [uPers, uProx, uPart] probe; in the conjunct, on the other hand, the simpler [uPers, uProx] probe is satisfied equally by both the 1st/2nd-person object and the 3rd-person subject and thus agrees with both arguments. Since inverse marking arises only when Infl₀ agrees exclusively with the object, it follows that the conjunct forms are not inverse. This analysis is illustrated in (56) for a 3—1 form.

(56) Original analysis of the independent-conjunct difference

a. INDEPENDENT
   object better match (· -ekw)

\[
\begin{array}{c}
\text{Infl}^0 \\
[u\text{Pers}] \\
[u\text{Prox}] \\
[u\text{Part}] \\
\end{array}
\quad \begin{array}{c}
\text{DP}^3 \\
[\text{Pers}] \\
[\text{Prox}] \\
[\text{Part}] \\
\end{array}
\quad \begin{array}{c}
\text{PersP}^1 \\
[\text{Pers}] \\
[\text{Prox}] \\
[\text{Part}] \\
\end{array}
\]

b. CONJUNCT
   simpler probe, both arg’s match (·: no -ekw)

\[
\begin{array}{c}
\text{Infl}^0 \\
[u\text{Pers}] \\
[u\text{Prox}] \\
\end{array}
\quad \begin{array}{c}
\text{DP}^3 \\
[\text{Pers}] \\
[\text{Prox}] \\
[\text{Part}] \\
\end{array}
\quad \begin{array}{c}
\text{PersP}^1 \\
[\text{Pers}] \\
[\text{Prox}] \\
[\text{Part}] \\
\end{array}
\]

However, the Feature Locality Hypothesis makes the analysis in (56b) impossible. Feature locality will favour the 1st-person object, since it is a PersP while the 3rd-person subject is a DP. As a result, the person probe on Infl₀ will agree only with the object, just as it does in the independent. We therefore incorrectly predict the conjunct 3—1 form to be inverse.

To repair the analysis, we must find a way to counteract the Feature Locality Hypothesis and force Infl₀ in the conjunct to agree with both arguments rather than just the 1st-person PersP object. In other words, we must find a way to extend agreement to the 3rd-person subject, thereby restoring the picture in (56b). Since the subject is a DP, we can achieve the desired result by positing that Infl₀ also bears a [uD] probe in addition to its person probe. The addition of this D-probe will restore the status of both arguments as equally good targets for Infl₀: due to the Feature Locality Hypothesis, the person probe on Infl₀ will favour the 1st-person object PersP, while the D-probe on Infl₀ will favour the 3rd-person subject DP.
As in all cases in which two equidistant arguments are an equally good match, Inf1 will agree with both of them, as shown in (57); the lack of inverse marking then follows.

(57) Revised analysis of the conjunct: [uD] probe added to the analysis
(3 is best match for D-probe, 1 is best match for Pers-probe)

I accordingly revise the analysis of the conjunct order by adding a [uD] probe to Inf1, as in (57). This additional probe has no effect in the non-local forms (3—4 and 4—3), in which both arguments are DPs, nor in the you-and-me forms (1—2 and 2—1), in which both arguments are PersPs; in both cases, the two arguments have an equal status with respect to the D-probe and the outcome is thus determined by the person probe, as in the original analysis. It is only in mixed forms such as (57) that the added [uD] probe affects the outcome by extending agreement to the 3rd-person subject argument, thereby compensating for the effect of the Feature Locality Hypothesis and accounting for the lack of inverse marking.

At this point, positing a [uD] probe on Inf1 may seem to be a piece of analytical sleight-of-hand, as its sole motivation is to repair the unwanted effect of the Feature Locality Hypothesis in the conjunct order. In the following sections, however, I will show that the D-probe also extends the overall coverage of the analysis (§5.7.3) and improves our understanding of the diachronic relationship between the conjunct and independent orders (§5.7.4).

5.7.3 Reconsidering the inanimate actor forms

The analysis of theme signs developed in Chapter 4 was largely successful, but there was one paradigm that it utterly failed to account for: the TA INANIMATE ACTOR forms in the conjunct order (§4.6.2). In the independent order, the inanimate actor forms are uniformly inverse. This pattern follows under both the original analysis and the revised one, as the person probe will favour the personful animate object over the personless inanimate subject in both cases. In the conjunct order, however, only the 0—3 form is inverse; the 0—1 and 0—2 forms are not. While this pattern differs from that of the independent, it matches the patterning of theme signs in the regular TA conjunct forms, as shown in (58)
The original analysis incorrectly predicts that the conjunct inanimate actor forms should display the same uniformly inverse pattern that occurs in the independent inanimate actor forms. The shared patterning is predicted by the fact that, under the original analysis, Infl$^0$ bears *only a person probe* in both the independent and the conjunct. Conjunct Infl$^0$ should thus uniformly prefer the personful animate object just as independent Infl$^0$ does, thereby making all of the conjunct forms inverse. However, the fact that only the 0—3 conjunct form is inverse indicates that this is not the case.

Under the revised analysis, the patterning in (58) falls out. Consider first the 0—3 form, which the original analysis does correctly predict to be inverse. The two analyses are compared in (59). Under the original analysis, the 3rd-person object is a better match for Infl$^0$, so Infl$^0$ agrees only with the object. Under the revised analysis, the 3rd-person object continues to be a better match for Infl$^0$; since both arguments are DPs and are thus equivalent for the D-probe, the person probe casts the deciding vote in favour of the 3rd-person object. The form is thus correctly predicted to be inverse by both analyses.

(59) 0—3 form: Infl$^0$ agrees only with the object in both analyses (\(\because\) inverse)

<table>
<thead>
<tr>
<th>3rd object</th>
<th>4—3</th>
<th>-ekw (INV)</th>
<th>0—3</th>
<th>-ekw (INV)</th>
<th>0—3</th>
<th>-ekw (INV)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1st object</td>
<td>3—1</td>
<td>-i (1OBJ)</td>
<td>0—1</td>
<td>-i (1OBJ)</td>
<td>0—1</td>
<td>-ekw (INV)</td>
</tr>
<tr>
<td>2nd object</td>
<td>3—2</td>
<td>-eθ (2OBJ)</td>
<td>0—2</td>
<td>-eθ (2OBJ)</td>
<td>0—2</td>
<td>-ekw (INV)</td>
</tr>
</tbody>
</table>

Turning to the 0—1 form (which represents the 0—2 form as well), the object continues to be a better match for Infl$^0$ under the original analysis, thus incorrectly predicting inverse marking. Under the revised analysis, however, the two arguments are *equally good matches* for Infl$^0$: the inanimate subject, as a DP, is the only argument that satisfies the D-probe,
while the 1st-person object is the only argument that satisfies the person probe. As in all cases in which the two equidistant arguments are an equally good match, Infl typically agrees with both. Since inverse marking arises only when Infl agrees solely with the object, the revised analysis correctly predicts that the 0—1 form will not be inverse.

(60) 0—1 form: original analysis fails, revised analysis succeeds

<table>
<thead>
<tr>
<th>a. ORIGINAL ANALYSIS</th>
<th>b. REVISED ANALYSIS (both arguments equally good match for Infl)</th>
</tr>
</thead>
<tbody>
<tr>
<td>(person probe prefers object)</td>
<td></td>
</tr>
</tbody>
</table>

\[
\begin{align*}
\text{Infl}^0 & \quad \text{DP}_{[0]} & \quad \text{PersP}_{[1]} \\
\left[u\text{Pers} \atop u\text{Prox}\right] & \quad \text{Pers Prox Part} \\
\end{align*}
\]

PREDICTION: inverse (X)

\[
\begin{align*}
\text{Infl}^0 & \quad \text{DP}_{[0]} & \quad \text{PersP}_{[1]} \\
\left[uD \atop u\text{Pers} \atop u\text{Prox}\right] & \quad \text{Pers Prox Part} \\
\end{align*}
\]

PREDICTION: non-inverse (√)

The revised analysis thus straightforwardly accounts for the lack of inverse marking in 0—1 and 0—2 conjunct forms, which posed a serious problem for the original analysis. The addition of a \([uD]\) probe to Infl in the conjunct order therefore has beneficial effects beyond simply compensating for the effect of the Feature Locality Hypothesis, as it allows us to account for a pattern that was previously a mystery.

The proposal that Infl agrees with both arguments in a conjunct 0—1 form such as (60b) finds striking confirmation in the agreement suffix that appears to the right of the theme sign. In the preceding chapter (§4.3), I proposed that the agreement suffix tracks the argument(s) that Infl agrees with, a relationship that I will explore further in Chapter 6. If this is the case, then we can gain additional confirmation of the arguments targeted by Infl in (60b) by considering the agreement suffix that would appear in such a form. As shown in (61), the agreement suffix in a 0—1p form is -amenk, which matches neither the 0 suffix -k nor the 1p suffix -a·nk. We must therefore conclude that -amenk is a portmanteau 0—1p suffix.

(61) Some conjunct-order agreement suffixes

<table>
<thead>
<tr>
<th>a. 0—1p suffix -amenk</th>
<th>b. 0 suffix -k</th>
<th>c. 1p suffix -a·nk</th>
</tr>
</thead>
<tbody>
<tr>
<td>[wa-pam-\text{iy-amenk-e}.]</td>
<td>[pankih\text{θen-k-e}.]</td>
<td>[pank\text{hšin-a-\text{nk-e}}.]</td>
</tr>
<tr>
<td>see-1OBJ-0—1p-sjv</td>
<td>fall-0-sjv</td>
<td>fall-1p-sjv</td>
</tr>
<tr>
<td>‘it sees us’</td>
<td>‘it falls’</td>
<td>‘we fall’</td>
</tr>
</tbody>
</table>
Since the agreement suffix is dependent upon the target(s) of Infl⁰, and since Infl⁰ agrees with both the 0 and 1 arguments in (60b), the revised analysis in (60b) correctly predicts the possibility of a portmanteau agreement suffix indexing both 0 and 1. The original analysis in (60a), on the other hand, does not, as Infl⁰ agrees only with 1st-person object, thus incorrectly predicting that agreement will be limited to 1p. The revised [uD] analysis is therefore superior not only in its ability to account for the patterning of theme signs in the inanimate actor forms, but in its account of portmanteau agreement markers in these forms as well.

5.7.4 Reconsidering the conjunct-independent relationship

The [uD] analysis provides a new perspective on the relationship between the independent and conjunct orders. In the conjunct order, only 4—3 forms are marked with the inverse theme sign -ekw, while in the independent, the use of -ekw has spread to 3—1 and 3—2 forms as well (§2.5.2.2). Under the original analysis proposed in Chapter 4, the expansion of inverse marking in the independent order was derived through the addition of a [uParticipant] sub-feature to the probe on Infl⁰ (§4.5), as shown in (62).

(62) Original account of the expansion of inverse marking (§4.5)

\[
\begin{array}{c|c}
\text{CONJUNCT} & \text{INDependent} \\
\hline
\text{Infl⁰} & \text{Infl⁰} \\
\text{[uPers]} & \text{[uPers]} \\
\text{[uProx]} & \text{[uProx]} \\
\text{[uPart]} & \\
\end{array}
\]

This is a simple analysis, but it raises a difficult question: when the independent inflection was innovated, why was a feature added to Infl⁰? We saw above that the rules governing the unspecified actor form were greatly simplified in the independent order (§5.6); such simplification is easy to explain, as it involves the loss of existing complexity. The addition of a [uParticipant] feature, however, is more mysterious: where did the feature come from?

Under the revised analysis, the tables are turned: it is now Infl⁰ in the conjunct order that is more complex, as it carries a [uD] probe that is absent in the independent (§5.7.2). Furthermore, since we no longer need to posit a [uParticipant] feature in the independent order (§5.7.1), the person probe is now the same in both orders. The diachronic picture that results is shown in (63).
Revised account of the expansion of inverse marking

\[ \text{CONJUNCT} \quad \text{INDEPENDENT} \]
\[ \begin{array}{c}
\text{Infl}^0 \\
\quad \left[ uD \right] \\
\quad \left[ uPers \right] \\
\quad \left[ uProx \right]
\end{array} \quad > \quad \begin{array}{c}
\text{Infl}^0 \\
\quad \left[ uPers \right] \\
\quad \left[ uProx \right]
\end{array} \]

The diachronic account is now more elegant: rather than explaining the appearance of an arbitrary \([u\text{Participant}]\) feature, we can simply say that the \([uD]\) component of the probe on \(\text{Infl}^0\) was lost. The development of \(\text{Infl}^0\) in the independent order thus involves the loss of complexity, just as the development of the unspecified actor forms does (§5.6).

This conclusion will be further refined in Chapter 6, where I will show that the independent order in fact has a D-probe on \(T^0\) in addition to the person probe on \(\text{Infl}^0\). This makes the diachronic account simpler still: as shown in (64), a D-probe and a person probe are present in both orders; the only difference is that the two probes appear on a single head in the conjunct and on separate heads in the independent (cf. Cowper and Hall 2011).

\[ \text{(64) Distribution of probes in the conjunct and independent} \]

\[ \begin{array}{c}
\text{CONJUNCT} \\
\quad \left[ uD \right] \\
\quad \left[ uPers \right] \\
\quad \left[ uProx \right]
\end{array} \quad > \quad \begin{array}{c}
\text{INDEPENDENT} \\
\quad \left[ uD \right] \\
\quad \left[ uPers \right] \\
\quad \left[ uProx \right]
\end{array} \]

5.7.5 Summary: A reconsideration of the probe on Infl

This section has explored the implications of the Feature Locality Hypothesis, which was developed in Section 5.6 in order to account for the patterning of the independent-order unspecified actor forms. This new addition to the model required a reconsideration of earlier proposals about the probe on \(\text{Infl}^0\). The new Feature Locality Hypothesis allows the probe to be simplified in the independent order through the removal of \([u\text{Participant}]\), while in the conjunct order a \([uD]\) probe must be added to \(\text{Infl}^0\) in order to maintain the correct results. This modified analysis accounts for the full range of forms that the original analysis accounted for, and it also straightforwardly explains the conjunct-order inanimate actor forms, whose
theme signs and inflection were previously a problem. The modified analysis also enables a more elegant diachronic account of the independent-conjunct contrast.

### 5.8 Summary: Theme signs in the unspecified actor form

This chapter has examined the unspecified actor form, a passive-like construction that helps to clarify various aspects of Proto-Algonquian morphosyntax. After arguing that the construction contains a defective agent nominal and is thus not a true passive, I have proposed an analysis of the distinct patterns of unspecified actor marking that occur in the conjunct and independent orders of Proto-Algonquian. In the conjunct order, the presence of the dedicated -en marker in addition to the object-agreement theme signs provides extra support for the “two-headed” Infl⁰-Voice⁰ model of theme signs, while in the independent order, the unusual split direct-inverse pattern helps to clarify the role played by locality in a system based on equidistance. The proposed “Feature Locality Hypothesis” states that when two goals are equidistant from a probe, locality constraints continue to apply, but in a more subtle way: a goal with the targeted feature as its category label will be favoured over an equidistant goal in which the targeted feature is more deeply embedded. This proposal enables a slight reconfiguration of the overall analysis of theme signs that extends the coverage of the analysis to additional forms and increases the naturalness of the diachronic account.
Analysis of other agreement morphology

The preceding chapters have focused on the theme signs that directly follow the Algonquian verb stem, which I have proposed are in fact markers of agreement in Voice⁰ and Infl⁰. In a sense, the theme signs are the foundation of Algonquian morphosyntax, as they establish the direct-inverse pattern that accords special prominence to the higher-ranked argument, regardless of its base position. However, the theme signs are not the only agreement markers on the Algonquian verb: the morphemes that I refer to as the prefix, formative, inner suffix, and outer suffix all display agreement as well. These remaining agreement markers are the topic of this chapter.

After reviewing the inflectional templates for the independent and conjunct orders (§6.1), I will propose that the various agreement markers that occur in the inflectional domain in fact fall into just two separate, internally-coherent systems (§6.2): the Infl/Person system, which is dependent upon the person probe on Infl⁰ (§6.3), and the T/D system, which is dependent upon a D probe on T⁰ (§6.4). The profusion of agreement markers is thus not as chaotic as it first appears, as it is only necessary to posit two probes, Infl⁰ and T⁰, upon which the remaining agreement markers are dependent.

The Infl/Person system and the T/D system are not entirely separate, however, as the two systems interact at certain points in the derivation (§6.5). These interactions will ultimately reveal a further microparameter of agreement: variation in the applicability of the Activity Condition (AC; Chomsky 2000, 2001), which prevents a probe from targeting a nominal that another probe has already agreed with. Baker (2008, 2013) has proposed that the AC is a macroparameter that applies to languages as wholes, but the interactions of the Infl/Person and T/D systems in Algonquian suggest that the AC must instead be a microparameter whose value can vary among the functional heads of a particular language.
6.1 Inflectional templates for the independent and conjunct orders

As a reminder of the various agreement markers and their position relative to other inflectional suffixes, the inflectional templates reconstructed for the Proto-Algonquian independent and conjunct orders are shown in (1) and (2) (Bloomfield 1946; Pentland 1999; Goddard 2007). In large part, these templates hold for the daughter languages as well, with the most significant change being the loss of the negative suffix in several languages (Goddard 1991:62). It is also worth noting that the slot glossed here as “Mode” (Bloomfield 1946:101; Pentland 1999:243) may in fact be a cover term for a range of modal and aspectual heads, as the independent-order forms reconstructed by Pentland encode both mode (-san ‘assertive’, -tweke-n ‘dubitative’) and aspect (-pan ‘preterit’) and can co-occur (-sapan ‘assertive preterit’, formed from -san + pan), and their meanings have shifted to cover varying aspectual, temporal, and modal notions in the daughter languages.

(1) PA conjunct order verb template

\[
\begin{array}{c|c|c|c|c|c|c}
\text{STEM} & \text{INFLEXION} \\
\text{Root + Final} & + \text{Theme Signs} & + \text{Neg} & + \text{Agr} & + \text{Mode} \\
\end{array}
\]

(2) PA independent order verb template

\[
\begin{array}{c|c|c|c|c|c|c|c|c|c}
\text{INFL} & \text{STEM} & \text{INFLEXION} \\
\text{Prefix} & \text{Root + Final} & + \text{Theme Signs} & + \text{Neg} & + \text{Formative} & + \text{Inner Agr} & + \text{Mode} & + \text{Outer Agr} \\
\end{array}
\]

These templates show that much is in fact shared between the independent and conjunct orders, which both contain the stem, theme signs, negation, inner agreement, and mode sign in the same sequence. (The actual forms of the inner agreement suffixes and mode signs are mostly different in the two orders, however.) To this shared template, the independent has added three further slots: the prefix, the formative, and the outer agreement suffix.

In (3) and (4), I have repeated the templates and added an annotation of the syntactic analysis that I will propose for each of the slots. Much of this has already been established: the analysis of the stem and theme signs as the sequence Root–e⁰–Voice⁰–Infl⁰ was argued for in Chapter 4 and the analysis of the Neg and Mode slots as Neg⁰ and Mod⁰ is self-evident (although, as mentioned above, Mod⁰ may in fact be a cover term for a range of aspectual and modal positions). There are three new additions to the analysis, which I will justify as
the chapter progresses: (1) the prefix and outer suffix in the independent order are clitics; (2) the “formative” in the independent order is T⁰, with a corresponding null T⁰ in the conjunct; and (3) the inner agreement suffix is Agr, an agreement node adjoined to T⁰.

(3) Analysis of PA conjunct order verb template

<table>
<thead>
<tr>
<th>STEM</th>
<th>INFLECTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Root + Final</td>
<td>+ Theme Signs + Neg + Ø + Agr + Mode</td>
</tr>
<tr>
<td>Root v⁰</td>
<td>Voice⁰, Infl⁰ Neg⁰ T⁰ Agr Mod⁰</td>
</tr>
</tbody>
</table>

(4) Analysis of PA independent order verb template

<table>
<thead>
<tr>
<th>INFLECT</th>
<th>STEM</th>
<th>INFLECTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prefix + Root + Final</td>
<td>+ Theme Signs + Neg + Formative + Inner Agr + Mode + Outer Agr</td>
<td></td>
</tr>
<tr>
<td>proclitic Root v⁰</td>
<td>Voice⁰, Infl⁰ Neg⁰ T⁰ Agr Mod⁰ enclitic</td>
<td></td>
</tr>
</tbody>
</table>

Under this analysis, the structural differences between the independent and conjunct orders are minimal: the independent has added clitics to both edges of the verb complex and an overt realization of T⁰. The structure is otherwise the same, although the spell-out of certain heads differs in the two orders, as does the specification of the probe on Infl⁰ (§5.7).

If we assume that Algonquian is head-initial (following Blain 1997, Déchaine 1999, Brunening 2001, Hirose 2003, Branigan et al. 2005, Bliss 2005, Quinn 2006, Mathieu 2007, Branigan 2012, and others) and that the surface order of morphemes is derived by successive head-movement, the Mirror Principle (Baker 1985) will assign the heads in these templates the structure in (5). The base positions of the arguments are shown here as well, following the proposals of Chapter 4. The clitics and the Agr node will be discussed in later sections.
Proposed syntactic structure of the Algonquian verb complex

From a crosslinguistic perspective, the order of heads in this structure is unremarkable (see, e.g., Cinque 1999), so in this respect Algonquian is not particularly exotic. The surface complexity of the Algonquian verb arises from the agreement probes that are distributed through this structure, which are outlined in the following section.

### 6.2 Agreement systems on the Algonquian verb

I propose that the syntactic structure of the Algonquian verb contains a maximum of three heads that bear agreement probes: Voice\(^0\), Infl\(^0\), and T\(^0\). The probes on Voice\(^0\) and Infl\(^0\), which occur in both the independent and conjunct orders, have been examined at length in Chapters 4–5. The T\(^0\) probe, which will be introduced in this chapter, initiates an additional layer of agreement that occurs in the independent order only. The probes borne by Voice\(^0\), Infl\(^0\), and T\(^0\) are as follows:

1. **Voice\(^0\)**, in the thematic domain of the clause, bears a flat person probe in both the independent and the conjunct (§4.2). Voice\(^0\) always agrees with the object.

2. **Infl\(^0\)**, in the inflectional domain of the clause, bears an articulated person probe in both orders, as well as a D-probe in the conjunct (§5.7). Infl\(^0\) agrees with whichever of the equidistant specifiers of VoiceP is a better match for its probe(s), or with both arguments if they are equally good matches.

3. **T\(^0\)**, further into the inflectional domain, hosts a D-probe in the independent order only. In Section 6.4, I will show that T\(^0\), like Infl\(^0\), can agree with either argument, although it probes for different features than Infl\(^0\) does.
Chapter 6

The location and identity of these probes is illustrated in (6) and (7). To save space, I have omitted the Neg\(^0\) and Mod\(^0\) heads, which play no role in the agreement system.

(6) Agreement probes in PA conjunct

\[
\text{Root} + v^0 + \text{Voice}^0 + \text{Infl}^0 + T^0 + \text{Agr}
\]

(7) Agreement probes in PA independent

\[
\text{Proclitic} + \text{Root} + v^0 + \text{Voice}^0 + \text{Infl}^0 + T^0 + \text{Agr} + \text{Enclitic}
\]

The identification of probes, however, is only part of the story of Algonquian agreement, as the verb also contains additional agreement morphemes that are dependent upon the probes for their values. This phenomenon was introduced in Chapter 4, where I showed that the prefix and inner suffix always agree with whatever argument Infl\(^0\) agrees with. The simplest analysis, then, is to say that the phi-features of the prefix and inner suffix are somehow dependent upon those of Infl\(^0\). (The alternative is to say that the prefix and inner suffix have their own probes that always happen to find the same value that the Infl-probe does. However, this analysis fails to capture the systematic correspondence between Infl\(^0\) and the prefix and inner suffix, as it becomes nothing more than a coincidence that the individual probes all target the same features. Such an analysis would also lead to a further proliferation of probes, which is undesirable in light of the already heavily-laden structures in (6) and (7).)

In order to refer to agreement dependencies like the one that holds among Infl\(^0\), the prefix, and the inner suffix, I will use the term AGREEMENT SYSTEM to denote a probe-bearing head plus any other agreement morphemes that systematically pattern with that head. Since probes are borne by Voice\(^0\), Infl\(^0\), and T\(^0\), each of these heads defines an agreement system. In order to be maximally explicit, I will include the main probing feature in the name of each system: the Voice/Person system, the Infl/Person system, and the T/D system.

The Voice/Person system is trivial, as it involves Voice\(^0\) alone, but the Infl/Person and T/D systems both involve additional morphology. The Infl/Person system is present in both the conjunct and independent orders. In the conjunct, the system includes Infl\(^0\) and the
agreement suffix, while in the independent, it includes Infl\textsuperscript{0}, the inner suffix, and the prefix. Whenever these additional agreement morphemes are present, they always share the phi-features of Infl\textsuperscript{0}. The Infl/Person system is highlighted in the verb templates in (8) and (9).

(8) The Infl/Person agreement system in the PA conjunct order

\[
\text{Root} + v^0 + \text{Voice}^0 + \frac{\text{Infl}^0}{(\text{inv. t.s.})} + T^0 + \frac{\text{Agr}}{[u\text{Pers} \atop u\text{Prox} \atop u\text{Def}]}
\]

(9) The Infl/Person agreement system in the PA independent order

\[
\text{Proclitic} + \text{Root} + v^0 + \text{Voice}^0 + \frac{\text{Infl}^0}{(\text{inv. t.s.})} + T^0 + \frac{\text{Agr}}{(\text{formative})} + \frac{\text{Enclitic}}{(\text{inner sfx.}) + (\text{outer sfx.})}
\]

The T/D system exists only in the independent order. It consists of T\textsuperscript{0} and the outer suffix, as shown in (10). Diachronically, the addition of this extra layer of agreement is a result of the nominal origins of the independent inflection: the formative (T\textsuperscript{0}) was originally a nominalizer while the outer suffix (enclitic) was originally a nominal definiteness marker.

(10) The T/D agreement system in the PA independent order

\[
\text{Proclitic} + \text{Root} + v^0 + \text{Voice}^0 + \frac{\text{Infl}^0}{(\text{inv. t.s.})} + \frac{T^0}{(\text{formative})} + \frac{\text{Agr}}{(\text{inner sfx.})} + \frac{\text{Enclitic}}{(\text{outer sfx.})}
\]

The remainder of this chapter examines the behaviour of these two agreement systems and their interactions, thus completing the analysis of Algonquian agreement inflection.

### 6.3 The Infl/Person agreement system

This section examines the Infl/Person agreement system in the independent (§6.3.1) and conjunct (§6.3.2) orders. In both orders, the additional agreement morphology indexes the argument(s) that the inverse theme sign head Infl\textsuperscript{0} agrees with. In the simplest case, this is equivalent to the higher-ranked argument on the Person Hierarchy. However, when both
arguments are equally good matches for the probe on Infl\textsuperscript{0}, the additional agreement morphology takes on a portmanteau character. In the independent order, this portmanteau behaviour occurs only in the you-and-me forms, but in the conjunct order it occurs in the mixed forms as well. I will show that this difference in the distribution of portmanteau agreement follows from the proposed analysis of the probe on Infl\textsuperscript{0}.

6.3.1 Infl/Person agreement in the independent

In the independent order, the Infl/Person agreement system consists of the Infl\textsuperscript{0} head, which bears a \([u\text{Person}, u\text{Proximate}]\) probe, and the prefix and inner suffix, as sketched in (11).

(11) The Infl/Person agreement system in the PA independent order (repeated from (9))

\[
\begin{array}{c}
\begin{array}{c}
\text{Proclitic} \quad + \quad \text{Root} \quad + \quad \text{Voice} \quad + \quad \text{Infl} \quad + \quad \text{T} \quad + \quad \text{Agr} \quad + \quad \text{Enclitic}
\end{array} \\
(\text{prefix}) \quad (\text{final}) \quad (\text{obj. t.s.}) \quad (\text{inv. t.s.}) \quad (\text{formative}) \quad (\text{inner sfx.}) \quad (\text{outer sfx.})
\end{array}
\]

I will begin by describing the patterning of the Infl/Person system in the independent order (§6.3.1.1), paying special attention to the you-and-me forms (§6.3.1.2). I will then consider in more detail the position of the additional agreement morphemes—namely, the prefix and inner suffix—in the syntactic structure (§6.3.1.3).

6.3.1.1 Patterning of Infl/Person agreement in the independent

This section describes the patterning of the Infl/Person agreement system in non-local forms, mixed forms, and you-and-me forms in turn. In each case, the patterning follows from the proposal that the prefix and inner suffix share the phi-features of the probing head Infl\textsuperscript{0}.

In independent non-local forms (3—4 and 4—3), the 3rd-person argument is the better match for Infl\textsuperscript{0}, as shown in (12).

(12) Independent non-local forms: Infl\textsuperscript{0} agrees with 3

\[
\begin{array}{c}
\text{PROBE} \quad \text{ARGUMENTS}
\end{array}
\]

\[
\begin{array}{c}
\text{Infl} \quad \text{DP}[3] \quad \text{DP}[4] \\
[u\text{Pers}] \quad [\text{Pers}] \quad [\text{Pers}]
\end{array}
\]
As predicted, the preàx and inner sufàx index the 3rd-person argument in such forms, as shown in (13) for both 3—4 and 4—3. (Here I show forms in which both arguments are plural, but the generalization holds for all 3/4 forms in which the Infl/Person system is realized. The full list of forms for this and all other Proto-Algonquian agreement paradigms is provided in the appendix to this thesis.)

(13) Independent non-local forms: prefix and inner suffix agree with 3

a. \[ \begin{array}{c}
\text{3p} \rightarrow \text{4p} \\
\text{we-} \\
\text{3} \\
\text{see} \\
\text{3/4obj pres} \\
\text{-wa-w} \\
\text{-ahi} \\
\end{array} \]

b. \[ \begin{array}{c}
\text{4p} \rightarrow \text{3p} \\
\text{we-} \\
\text{3} \\
\text{see} \\
\text{inv pres} \\
\text{-wa-w} \\
\text{-ahi} \\
\end{array} \]

‘they see the others’

‘the others see them’

In independent mixed forms (1/2—3 and 3—1/2), the 1st/2nd-person argument is targeted by Infl\(^0\), as shown in (14) for a 1st-person form. Although the 3rd-person argument is in fact an equally good match for \([u\text{Person}, u\text{Proximate}]\) probe, it is excluded from agreement because its extra DP layer makes it less local to the person probe, according to the Feature Locality Hypothesis proposed in Chapter 5 (§5.6).

(14) Independent mixed forms: Infl\(^0\) agrees with 1

<table>
<thead>
<tr>
<th>PROBE</th>
<th>ARGUMENTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Infl(^0)</td>
<td>Pers(_{[1]})</td>
</tr>
<tr>
<td>([u\text{Pers}, u\text{Prox}])</td>
<td>([\text{Pers}, \text{Prox}, \text{Part}])</td>
</tr>
</tbody>
</table>

As predicted, the prefix and inner suffix also index the 1st-person argument in such forms, as shown in (15) for 1p—3p and 3p—1p. (The same pattern holds for all combinations of 1s/p and 3s/p; see the appendix for the full list.)
(15) Independent mixed forms: prefix and inner suffix agree with 1

a.  
\[
\begin{array}{c}
\text{1p} \rightarrow \text{3p} \\
\text{ne-} \\
\text{1} \\
\text{wa-pam-} \\
\text{-a-} \\
\text{-w} \\
\text{-ena-n} \\
\text{-aki} \\
\text{see} \\
\text{3/4OBJ} \\
\text{PRES} \\
\text{1p} \\
\text{3p}
\end{array}
\]

‘we see them’

b.  
\[
\begin{array}{c}
\text{1p} \rightarrow \text{3p} \\
\text{ne-} \\
\text{1} \\
\text{wa-pam-} \\
\text{-ekw} \\
\text{-w} \\
\text{-ena-n} \\
\text{-aki} \\
\text{see} \\
\text{INV} \\
\text{PRES} \\
\text{1p} \\
\text{3p}
\end{array}
\]

‘they see us’

The independent you-and-me forms (1—2 and 2—1) differ from the non-local and mixed forms in that both arguments are an equally good match for Infl⁰, as shown in (16).

(16) Independent mixed forms: Infl⁰ agrees with 1 and 2

\[
\begin{array}{cccc}
\text{PROBE} & \text{ARGUMENTS} \\
\text{Infl⁰} & \text{PersP[1]} & \text{PersP[2]} \\
[\text{uPers}] & \text{Pers} & \text{Pers} \\
[\text{uProx}] & \text{Prox} & \text{Prox} \\
 & \text{Part} & \text{Part} \\
 & \text{Addr} & \text{Addr}
\end{array}
\]

The agreement pattern in such forms also differs: rather than consistently indexing one argument, as in all the forms above, the prefix and inner suffix may index either the 2nd-person argument or both arguments, as shown in (17) for the full set of forms.

(17) Independent you-and-me forms: prefix and inner suffix agree with 2 or 2&1

a.  
\[
\begin{array}{c}
\text{2s} \rightarrow \text{1s} \\
\text{ke-} \\
\text{2} \\
\text{wa-pam-} \\
\text{-i} \\
\text{-hm} \\
\text{see} \\
\text{1OBJ} \\
\text{PRES}
\end{array}
\]

‘you (sg.) see me’

b.  
\[
\begin{array}{c}
\text{2p} \rightarrow \text{1s} \\
\text{ke-} \\
\text{2} \\
\text{wa-pam-} \\
\text{-i} \\
\text{-hm} \\
\text{-wa-} \\
\text{see} \\
\text{1OBJ} \\
\text{PRES} \\
\text{2p}
\end{array}
\]

‘you (pl.) see me’

c.  
\[
\begin{array}{c}
\text{2s/p} \rightarrow \text{1p} \\
\text{ke-} \\
\text{2} \\
\text{wa-pam-} \\
\text{-i} \\
\text{-hm} \\
\text{-ena-} \\
\text{see} \\
\text{1OBJ} \\
\text{PRES} \\
\text{1p}
\end{array}
\]

‘you see us’

\footnote{\text{In these forms, a strikeout (e.g. } \text{hm} \text{) marks material that can be internally reconstructed for Pre-PA, but had been lost due to word-final deletion in PA proper (Goddard 2007). Also, the outer suffix is absent in these forms, so the inner suffix, when present, is word-final.}}
The possibility of you-and-me forms such as (17c) and (17f), in which the prefix and inner suffix index different arguments, is predicted by the analysis in (16) above, as the you-and-me forms are the one case in which independent-order Infl$^0$ agrees with both arguments. The Infl/Person agreement system thus has access to the phi-features of both arguments in the you-and-me forms only, so it is not a surprise that the portmanteau-like marking of two arguments rather than one occurs only in these forms. (The forms are not true portmanteaux, as the arguments are marked by separate morphemes, but they are *portmanteau-like* in that two arguments are indexed by agreement morphology that normally indexes only one argument.) This analysis echoes the approach to portmanteau agreement in Chukchi proposed by Bobaljik and Branigan (2006), who show that portmanteau agreement on T$^0$ occurs in exactly those instances in which T$^0$ checks the Case of multiple arguments. Bobaljik and Branigan (2006:58) regard their proposal as a tentative suggestion whose generality can only be confirmed by further research. It is encouraging, then, that the Algonquian agreement pattern can be explained in exactly the same way.

In broad terms, then, the patterning of the Infl/Person agreement system in the independent order follows from the proposed analysis of Infl$^0$: the prefix and inner suffix consistently draw their features from the argument(s) that Infl$^0$ agrees with, as summarized in (18).

(18) Correlation of prefix and inner suffix with target of Infl$^0$ (independent order)

<table>
<thead>
<tr>
<th>FORM</th>
<th>ARG'TS</th>
<th>TARGET OF INFL$^0$</th>
<th>PREFIX/INNER SUFFIX</th>
</tr>
</thead>
<tbody>
<tr>
<td>non-local</td>
<td>3 and 4</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>mixed</td>
<td>1 and 3</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>2 and 3</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>you-and-me</td>
<td>1 and 2</td>
<td>both 1 and 2</td>
<td>2 or both 1 and 2</td>
</tr>
</tbody>
</table>
Beyond this central insight, however, other more technical issues remain to be addressed. In the you-and-me forms, the existing analysis explains why it is possible for the prefix and inner suffix to index both arguments, but we must also explain why only the forms in (17c) and (17f) take advantage of this possibility, while the other you-and-me forms index only the 2nd-person argument (§6.3.1.2). More generally, beyond accounting for the phi-features that are realized on the prefix and inner suffix, we must also identify the syntactic positions in which these morphemes occur and the mechanism by which they are generated (§6.3.1.3).

6.3.1.2 Patterning of prefix and inner suffix in you-and-me forms

The patterning of the prefix and inner suffix in the you-and-me forms requires special comment. The agreement of Infl with both arguments in these forms makes the phi-features of both arguments available to the prefix and inner suffix. However, the prefix and suffix choose between the available features in different ways, as summarized in (19): the prefix always indexes the 2nd-person argument while the suffix varies between the two arguments.

(19) Conditioning of prefix and inner suffix in you-and-me forms (summarized from (17))

<table>
<thead>
<tr>
<th>ARGUMENTS</th>
<th>PREFIX</th>
<th>INNER SUFFIX</th>
</tr>
</thead>
<tbody>
<tr>
<td>1s, 2s</td>
<td>2</td>
<td>Ø</td>
</tr>
<tr>
<td>1s, 2p</td>
<td>2</td>
<td>2p</td>
</tr>
<tr>
<td>1p, 2s</td>
<td>2</td>
<td>1p</td>
</tr>
<tr>
<td>1p, 2p</td>
<td>2</td>
<td>1p</td>
</tr>
</tbody>
</table>

The divergent patterning of the prefix and inner suffix means that some level of the analysis must contain separate rules for the two morphemes. (It is only with respect to the you-and-me forms that such separate rules are necessary, as the prefix and inner suffix otherwise always pattern together.) I will consider the rules for the prefix and inner suffix in turn.

Since the prefix always chooses the 2nd-person argument, the spell-out rule for the prefix must somehow prioritize 2nd-person features over 1st-person features. This can be accomplished by ordering the spell-out of 2nd-person features before that of 1st-person features, as proposed for Ojibwe by McGinnis (1995b):
The inner suffix makes its choice following different criteria. When both arguments are singular, no inner suffix appears. This is unsurprising, as the inner suffix is always null in singular forms. When one argument is singular and the other is plural, the inner suffix chooses the plural argument (1p -ena∙, 2p -wa∙). Again, this is unsurprising, as the inner suffix lacks singular forms, which makes the plural argument the only valid candidate. When both arguments are plural, however, they are both valid candidates, so a choice must be made—and it is the 1p argument that that wins (1p -ena∙). The spell-out rule for the inner suffix must thus prioritize 1p over 2p, as in (21), which again follows McGinnis (1995b).

Under this analysis, the realization of the prefix and inner suffix in you-and-me forms is not a particularly deep property of the grammar. The possibility of indexing both arguments is a deep property, as it results from the syntactic agreement of Infl with both arguments, but the choice of whether to spell out 1st-person or 2nd-person features on a particular morpheme in a particular form is simply a matter of morphology. This arbitrary morphological explanation may be somewhat unsatisfying, but it seems to be the only option, since the conditioning of the prefix and inner suffix is contradictory: in descriptive terms, the prefix is governed by a 2 > 1 hierarchy while the inner suffix is governed by a 1 > 2 hierarchy, as Macaulay (2009) discusses in detail. This contradictory conditioning makes a unified account of both affixes impossible, so we have no choice but to posit separate rules, and there is no obvious basis for deciding that one rule has a more fundamental status in the grammar than the other.

### 6.3.1.3 Syntactic status of prefix and inner suffix

The preceding sections have accounted for the phi-features that appear in the prefix and inner suffix positions. While I consider this to be the most significant part of the analysis, two further questions should also be addressed for completeness: (1) how do we formalize the
dependence of the prefix and inner suffix on the phi-features of Infl\(^0\), and (2) what are the structural positions that the prefix and inner suffix occupy?

The question of dependency arises because of the predictability of the phi-features that appear on the prefix and inner suffix. Since these features follow directly from those of Infl\(^0\), there is no need to propose that the prefix and inner suffix involve probe-goal agreement operations of their own. Instead, we simply need to establish some sort of link between Infl\(^0\) and the prefix and inner suffix.

To formalize this link, I will assume, first, that Infl\(^0\) assigns Case to the nominal(s) that it agrees with. I will refer to the particular value of Case assigned by Infl\(^0\) simply as “Infl-Case”, following Pesetsky’s (2013) proposal that Case can be understood as the categorial feature of a head copied onto a dependent. This assumption allows us to regard the prefix and inner suffix as case-tracking agreement in the sense of Bobaljik (2008)—that is, postsyntactically-generated agreement morphemes that index the nominal that bears a particular Case. The analysis is then straightforward: the prefix and inner suffix track the Infl-Case nominal(s).

It should be noted that while I employ Bobaljik’s (2008) approach to postsyntactic agreement here, I do not follow Bobaljik in taking all instances of agreement to be postsyntactic. Rather, I consider the Infl/Person and T/D agreement systems on the Algonquian verb to involve a combination of syntactic and postsyntactic operations. The probe-bearing heads (Infl\(^0\) and T\(^0\)) participate in agreement and abstract Case assignment in the narrow syntax while the dependent agreement morphemes (the prefix, inner suffix, and outer suffix) are generated postsyntactically on a Case-tracking basis.

The analysis now accounts for the identity of the phi-features on the prefix and inner suffix and the means by which these features are inherited from Infl\(^0\). The last remaining question is structural: what positions do the prefix and inner suffix occupy? I propose that the prefix is a proclitic in CP while the inner suffix is an Agr node adhered to T\(^0\). The following paragraphs discuss the rationale for each of these proposals in turn.

The analysis of the prefix as a proclitic follows a broad consensus in the theoretical literature (e.g. Halle and Marantz 1993, McGinnis 1995b, Déchaine 1997, Brittain 2001, Richards 2004, Mathieu 2007, Cook 2008, Branigan 2012). The main evidence for the proclitic analysis is the well-known tendency for the prefix to be separated from the verb stem by intervening material, including preverbs, adverbs, and discourse particles. For example, in the Meskwaki form in (22) (Michelson 1925:136.8–9, cited in LeSourd 2009), the 2nd-person prefix ke- is separated from the root \textit{wi-tamo} ‘tell’ by the adverb \textit{peshikwi} ‘straight’, the discourse particles \textit{cha-h} and \textit{meko}, and the demonstrative \textit{mani} ‘this’. 
\(ke\)-peshkwi =cha-h =meko mani wi-tamo- ne -pwa…

‘I have told you (pl.) this in an upright manner…’ (Meskwaki)

(cf. uninterrupted kewi-tamo-nepwa ‘I have told it to you’)

I take the intervening material in (22) to lie between the proclitic position in CP and the highest position to which the verb stem wi-tamo- moves, which must be at least as high as ModP, given the fact that modal inflection can occur on the verb.\(^2\)

As for the inner suffix, its linear position in the verb complex is between T\(^0\) (the so-called “formative”; §6.4 below) and Mod\(^0\), as shown in (23).

(23) PA independent order verb template (repeated from (4))

<table>
<thead>
<tr>
<th>INFL.</th>
<th>STEM</th>
<th>INFLECTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prefix +</td>
<td>Root + Final</td>
<td>Theme + Neg + Formative + Inner</td>
</tr>
<tr>
<td>proclitic</td>
<td>Root</td>
<td>v(^0)</td>
</tr>
<tr>
<td>v</td>
<td>Agr</td>
<td>Mod</td>
</tr>
</tbody>
</table>

Given this position, there are two obvious possibilities for the structural status of the inner suffix: (1) an additional functional head directly above T\(^0\), or (2) a postsyntactically-generated agreement node adjoined to T\(^0\). The latter possibility follows the treatment of agreement in Distributed Morphology. For example, in the Latin imperfect form laud\(b\)(\(a\))mus ‘we were praising’, Embick and Noyer (2007:306) analyze the 1p agreement suffix -mus as an Agr node adjoined to T\(^0\) at PF, as shown in (24). (Note that T\(^0\) here is a complex head formed through head-movement of Root and v\(^0\).)

(24) Analysis of Latin subject agreement as an Agr node adjoined to T\(^0\) at PF

\[^2\]But see Dahlstrom 2000 for a different analysis in which the position of the proclitic is a result of movement.
The first possibility—that the inner suffix is an additional functional head—is undermined by the apparent semantic and syntactic vacuity of the inner suffix. Semantically, the inner suffix is vacuous in that it makes no identifiable contribution to the meaning of the clause. Unlike the neighbouring $T^0$ head, which encodes the past/present distinction in addition to carrying D-agreement features, the inner suffix carries agreement features alone. Syntactically, the inner suffix is vacuous in that it plays no independent role in agreement in the narrow syntax: as shown above, the phi-features that it carries are predictable from those of Infl$^0$ and can be accounted for on a postsyntactic case-tracking basis. There is thus neither semantic nor syntactic grounds to posit that the inner suffix is a distinct functional head.

The second analytical possibility, in which the inner suffix is a DM-style agreement node (‘Agr’) that is adjoined to $T^0$ at PF, is preferable. Under this approach, the inner suffix is added in the PF component after the syntactic structure has already been completed and sent to LF for interpretation. Since the inner suffix enters the derivation too late to affect the syntactic structure or the interpretation, its lack of syntactic and semantic substance follows.

The PF-adjunction analysis of the inner suffix is illustrated in (25) along with the neighbouring heads Neg$^0$, $T^0$, and Mod$^0$. The relevant portion of the inflectional template is repeated in (25a) for reference. The narrow syntactic structure of this portion of the verb morphology is shown in (25b) both before and after successive head-movement. The adjunction of an Agr node to $T^0$ at PF is shown in (25c). This adjunction results from the rule $T^0 \rightarrow [T^0 \ Agr]$, just as posited for Latin by Embick and Noyer (2007) (see (24) above).

(25) Generation of the inner suffix as an Agr node adjoined to $T^0$ in PF

a. Relevant portion of inflectional template (excerpted from (23))

\[
\begin{array}{c}
\ldots + \text{Neg} + \text{Formative} + \boxed{\text{Inner Suffix}} + \text{Mode} + \ldots \\
\text{Neg}^0 \hspace{1cm} T^0 \hspace{1cm} \text{Agr} \hspace{1cm} \text{Mod}^0
\end{array}
\]

b. Syntactic structure (narrow syntax; head movement creates complex Mod$^0$ head)
c. PF structure of the complex Mod$^0$ head (after PF rule: T$^0 \rightarrow [T^0 \text{Agr}]$)

```
   Mod$^0$
  /    \
T$^0$   Mod$^0$
  /     \
T$^0$    Agr
 /        \
Neg$^0$  T$^0$
```

The PF-adjunction analysis thus correctly derives the surface position of the inner suffix in addition to capturing its syntactic and semantic vacuity. The adjunction of Agr to T$^0$—or, in descriptive terms, the adjunction of the inner suffix to the formative—also fits well with the diachronic facts, as the inner suffix and the formative appear to have fused into a single morpheme in several of the daughter languages (§7.3.2.6).

6.3.1.4 Summary: Infl/Person agreement in the independent

In the independent order, the Infl/Person agreement system consists of three morphemes that all agree with the same argument(s): (1) the functional head Infl$^0$, which hosts the inverse theme sign -ekw in certain forms, (2) the prefix, and (3) the inner suffix. I have proposed that only Infl$^0$ is active in the narrow syntax: it bears a $[u\text{Person}, u\text{Proximate}]$ probe that agrees with and assigns Infl-Case to one or both of the equidistant specifiers of VoiceP. The prefix and inner suffix are subsequently generated at PF with a copy of the phi-features of the Infl-Case nominal(s). The prefix is a proclitic in CP while the inner suffix is an Agr node adjoined to T$^0$. When Infl$^0$ agrees with only one argument, the prefix and inner suffix index only that argument, but when Infl$^0$ agrees with both arguments—which occurs only in the you-and-me forms—a portmanteau-like pattern arises in which the prefix and inner suffix select among the features of both arguments.

There is one caveat to the discussion in this section. As presented above, the central property of the prefix and inner suffix is that they always index the target(s) of Infl$^0$. This is true in all forms in which the prefix and inner suffix appear. However, there are also certain independent-order forms in which the prefix and inner suffix appear. When Infl$^0$ agrees with only one argument, the prefix and inner suffix index only that argument, but when Infl$^0$ agrees with both arguments—which occurs only in the you-and-me forms—a portmanteau-like pattern arises in which the prefix and inner suffix select among the features of both arguments.

These so-called absolute forms will be examined in Section 6.5, where I will show that the unexpected non-occurrence of the prefix and inner suffix results from an interaction between the Infl/Person and T/D agreement systems.
6.3.2 Infl/Person agreement in the conjunct

There is an important difference in the patterning of Infl/Person agreement in the conjunct order: portmanteau agreement appears in a broader range of forms. This difference is in fact predicted by the analysis of theme signs developed in this thesis: in order to explain the patterning of the inverse theme sign, I have already proposed that Infl0 agrees with both arguments in more contexts in the conjunct than it does in the independent (§5.7), and it is in exactly these additional contexts that the conjunct order displays portmanteau agreement. The proposed analysis thus explains not only the different patterning of theme signs in the independent and conjunct, but the different patterning of portmanteau agreement as well.

Before examining the patterning of portmanteau agreement in detail, it is necessary to set out the basic properties of the Infl/Person agreement system in the conjunct order. This section thus begins with a general description of Infl/Person agreement in the conjunct order (§6.3.2.1) before turning to consider the distribution of portmanteau forms (§6.3.2.2).

6.3.2.1 Patterning of Infl/Person agreement in the conjunct

In broad terms, the Infl/Person system patterns the same in the conjunct as it does in the independent: the postsyntactic agreement morphology indexes whatever argument(s) Infl0 agrees with. However, the details differ from the independent in three ways: (1) no prefix is present; (2) the agreement suffix has different forms; and (3) Infl0 has an additional probe.

1. Prefix. Since the person prefix is absent, the conjunct Infl/Person agreement system consists of only two morphemes: Infl0 and the inner suffix, as shown in the template in (26); compare the independent template in (27). Since there is no outer suffix in the conjunct, I will refer to the inner suffix simply as the “agreement suffix.”

(26) PA conjunct-order Infl/Person agreement system (template repeated from (3))

<table>
<thead>
<tr>
<th>Root</th>
<th>Final</th>
<th>Theme Signs</th>
<th>Neg</th>
<th>Ø</th>
<th>Agr Suffix</th>
<th>Mode</th>
</tr>
</thead>
<tbody>
<tr>
<td>Root</td>
<td>v0</td>
<td>Voice0, Infl0</td>
<td>Neg0</td>
<td>T0</td>
<td>Agr</td>
<td>Mod0</td>
</tr>
</tbody>
</table>

(27) PA independent-order Infl/Person agreement system (template repeated from (4))

<table>
<thead>
<tr>
<th>Prefix</th>
<th>Root</th>
<th>Final</th>
<th>Theme Signs</th>
<th>Neg</th>
<th>Formative</th>
<th>Inner Suffix</th>
<th>Mode</th>
<th>Outer Suffix</th>
</tr>
</thead>
<tbody>
<tr>
<td>proclitic</td>
<td>Root</td>
<td>v0</td>
<td>Voice0, Infl0</td>
<td>Neg0</td>
<td>T0</td>
<td>Agr</td>
<td>Mod0</td>
<td>enclitic</td>
</tr>
</tbody>
</table>
2. Agreement suffix. The conjunct-order agreement suffix is structurally equivalent to the independent-order inner suffix: both suffixes appear between Neg and Mod and agree with whatever argument(s) Infl\(^0\) agrees with. The particular morphological forms of the suffixes, however, are almost entirely different in the independent and the conjunct, as shown in (28).\(^3\)

(28) Comparison of independent and conjunct agreement suffix (AI paradigm)

<table>
<thead>
<tr>
<th></th>
<th>INDEPENDENT INNER SUFFIX</th>
<th>CONJUNCT AGR SUFFIX</th>
</tr>
</thead>
<tbody>
<tr>
<td>1s</td>
<td>Ø</td>
<td>-a-n</td>
</tr>
<tr>
<td>2s</td>
<td>Ø</td>
<td>-an</td>
</tr>
<tr>
<td>3s</td>
<td>Ø</td>
<td>-t</td>
</tr>
<tr>
<td>1p</td>
<td>-na-n</td>
<td>-a-nk</td>
</tr>
<tr>
<td>21p</td>
<td>-naw</td>
<td>-ankw</td>
</tr>
<tr>
<td>2p</td>
<td>-wa-w</td>
<td>-e-kw</td>
</tr>
<tr>
<td>3p</td>
<td>-wa-w</td>
<td>-t + -wa-w (?)</td>
</tr>
</tbody>
</table>

3. Probe on Infl\(^0\). In Chapter 5, I proposed, based on the patterning of the inverse theme sign, that conjunct-order Infl\(^0\) probes for \([uD]\) in addition to \([uPerson, uProximate]\), as illustrated in (29).

(29) Probes hosted by Infl\(^0\) in the conjunct and independent (§5.7.4)

\[
\begin{array}{c}
\text{CONJUNCT} \\
\xrightarrow{\text{Infl}^0} \\
\begin{array}{c}
[uPers] \\
[uProx] \\
[uD]
\end{array}
\end{array}
\begin{array}{c}
\text{INDEPENDENT} \\
\xrightarrow{\text{Infl}^0} \\
\begin{array}{c}
[uPers] \\
[uProx] \\
[uD]
\end{array}
\end{array}
\]

6.3.2.2 Comparing the distribution of portmanteau agreement

We saw above that in the independent order, the prefix and inner suffix sometimes exhibit a portmanteau-like pattern in which the two morphemes index different arguments. In the

---

\(^3\)The only potential similarity is in the 3p form, in which the element \(-wa-w\) may occur in both the independent and the conjunct. However, the status of the conjunct reconstruction is uncertain. Goddard (1979b:98) notes that some languages reflect \(t + wa-w\) while others reflect \(wa-w + t\) and suggests that the PA formation was “probably” the former. Proulx (1984c:407–8; 2003:214–15) instead argues that neither form goes back to PA, with \(-wa-w\) being a more recent addition to the conjunct paradigm under the influence of the independent.
conjunct order, a similar pattern is exhibited by the agreement suffix, which is itself sometimes a portmanteau. However the distribution of portmanteau forms differs in the independent and the conjunct. In the independent, portmanteau-like agreement is possible in the you-and-me forms but not in the non-local and mixed forms, as summarized in (30).

(30) Portmanteau-like agreement in the independent Infl/Person agreement system

<table>
<thead>
<tr>
<th>CONTEXT</th>
<th>ARGUMENTS</th>
<th>TARGET OF PREFIX</th>
<th>TARGET OF INNER SUFFIX</th>
<th>PORTMANTEAU POSSIBLE?</th>
</tr>
</thead>
<tbody>
<tr>
<td>you-and-me</td>
<td>1 and 2</td>
<td>2</td>
<td>1 or 2</td>
<td>YES</td>
</tr>
<tr>
<td>mixed</td>
<td>1 and 3</td>
<td>1</td>
<td>1</td>
<td>NO</td>
</tr>
<tr>
<td></td>
<td>2 and 3</td>
<td>2</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>non-local</td>
<td>3 and 4</td>
<td>3</td>
<td>3</td>
<td>NO</td>
</tr>
</tbody>
</table>

The following paragraphs compare the patterning of portmanteau forms in the conjunct order with that of the independent in each of the basic TA contexts: (1) you-and-me forms, (2) non-local forms, and (3) mixed forms.

1. You-and-me forms. The conjunct matches the independent in that portmanteau agreement is possible in you-and-me forms: the 1s—2p conjunct form takes the agreement suffix -akokw, which differs from both the 1s suffix -a∙n and the 2p suffix -e∙kw, as shown in (31).

(31) Portmanteau agreement in the conjunct 1s—2p form

<table>
<thead>
<tr>
<th>1s—2p</th>
<th>cf. 1s</th>
<th>cf. 2p</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>wa-pam-eθ -e</em></td>
<td><em>pankihšin -a∙n -e</em></td>
<td><em>pankihšin -e∙kw -e</em></td>
</tr>
<tr>
<td>see -2obj -1s—2p -sjv</td>
<td>fall -1s -sjv</td>
<td>fall -2p -sjv</td>
</tr>
<tr>
<td>‘if I see you (pl.)’</td>
<td>‘if I fall’</td>
<td>‘if you (pl.) fall’</td>
</tr>
</tbody>
</table>

Since the -akokw suffix cannot be identified with either the 1s suffix nor the 2p suffix, we can only express its conditioning by recognizing it as a special form that occurs when the subject is 1s and the object is 2p—in other words, a portmanteau.

2. Non-local forms. The conjunct also matches the independent in that the non-local forms do not display portmanteau agreement. As shown in (32), the 3s—4 form takes the same 3s suffix -t that occurs in an intransitive 3s form. There is no special 3s—4 portmanteau.
No portmanteau agreement in the conjunct 3s—4 form

\[
\begin{array}{ccc}
3s-4 & \text{cf. 3s} \\
wa\text{-pam} & -a\cdot & \text{-}e\cdot \\
\text{see} & -3/4\text{obj} & -3s -\text{sju}
\end{array}
\]

Portmanteau agreement in the conjunct 1s—3s form

\[
\begin{array}{ccc}
1s-3s & \text{cf. 1s} & \text{cf. 3s} \\
wa\text{-pam} & -Ø & -ak & -e\cdot \\
\text{see} & 3/4\text{obj} & 1s-3s -\text{sju} & \text{fall} -1s -\text{sju} & -an & -\text{e}\cdot \\
\text{pankh\text{"i}sin} & -ak & -\text{e} & \text{nepa} & -t & -e\cdot \\
\text{sleep} & -3s & -\text{sju} & \text{sleep} & -3s & -\text{sju}
\end{array}
\]

Portmanteau agreement occurs in several other mixed conjunct forms as well, as summarized in (34). In each case, the agreement suffix differs from the suffixes that appear in the relevant intransitive forms (shown in the “compare” column).

The overall distribution of portmanteau agreement in Proto-Algonquian is summarized in (35). In brief, the independent order displays portmanteau agreement only in the you-and-me forms while the conjunct order allows it in mixed forms as well.
Is portmanteau agreement possible?

<table>
<thead>
<tr>
<th></th>
<th>INDEPENDENT</th>
<th>CONJUNCT</th>
</tr>
</thead>
<tbody>
<tr>
<td>you-and-me forms</td>
<td>YES</td>
<td>YES</td>
</tr>
<tr>
<td>mixed forms</td>
<td>no</td>
<td>YES</td>
</tr>
<tr>
<td>non-local forms</td>
<td>no</td>
<td>no</td>
</tr>
</tbody>
</table>

The distribution in (35) is familiar: it is an exact match for the distribution of the object-agreement theme signs -i (1OBJ) and -eθ (2OBJ), which are also restricted to the you-and-me forms in the independent but occur additionally in mixed forms in the conjunct (§2.5.2.2; §5.7.4). These parallel patterns are compared in (36).

<table>
<thead>
<tr>
<th>Portmanteau agreement?</th>
<th>-i/-eθ theme signs?</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>INDEPENDENT</td>
</tr>
<tr>
<td>you-and-me</td>
<td>YES</td>
</tr>
<tr>
<td>mixed</td>
<td>no</td>
</tr>
<tr>
<td>non-local</td>
<td>no</td>
</tr>
</tbody>
</table>

With respect to both portmanteau agreement and theme signs, then, the conjunct differs from the independent in that the mixed forms pattern with the you-and-me forms.

I argue that the shared patterning in (36) is not a coincidence—in fact, it is directly predicted by the analysis of theme signs that was proposed in Chapters 4 and 5. The crucial portion of this analysis is summarized in (37). In the you-and-me forms and non-local forms, I proposed that Infl is the same agreement relations in both the independent and conjunct orders: it agrees with both arguments in the you-and-me forms and with the higher-ranked argument in the non-local forms. In the mixed forms, however, I proposed that Infl behaves differently in the independent and conjunct orders: it agrees with the higher-ranked argument in the independent order, but with both arguments in the conjunct order. (For the full details of this analysis, see Section 5.7.4.)
(37) Which argument(s) does Infl\(^0\) agree with? (§5.7.4)

<table>
<thead>
<tr>
<th></th>
<th>INDEPENDENT</th>
<th>CONJUNCT</th>
</tr>
</thead>
<tbody>
<tr>
<td>you-and-me</td>
<td>BOTH</td>
<td>BOTH</td>
</tr>
<tr>
<td>mixed</td>
<td>higher-ranked</td>
<td>BOTH</td>
</tr>
<tr>
<td>non-local</td>
<td>higher-ranked</td>
<td>higher-ranked</td>
</tr>
</tbody>
</table>

This analysis was proposed in order to account for the distribution of theme signs in (36), but it straightforwardly accounts for the distribution of portmanteau agreement in (36) as well. No new proposals are required in order to achieve this result: all we need to say is that the possibility of portmanteau agreement arises whenever Infl\(^0\) agrees with both arguments, as I have assumed all along (cf. Bobaljik and Branigan 2006). It then follows that the possibility of portmanteau agreement is limited to the you-and-me forms of both orders and the mixed forms of the conjunct order, as these are the only forms in which Infl\(^0\) agrees with both arguments. The distribution of portmanteau agreement is thus a consequence of the same underlying Infl\(^0\)-agreement pattern that drives the realization of the theme signs. This analysis allows us to understand the distribution of portmanteau agreement and the patterning of theme signs as a unified system rather than as two unrelated collections of facts.

### 6.3.3 Summary: The Infl/Person agreement system

This section has examined the Infl/Person agreement system of Proto-Algonquian. This system consists of the functional head Infl\(^0\), which is sometimes realized as the inverse theme sign -ekw, plus up to two dependent agreement morphemes: the (inner) agreement suffix that occurs in both the independent and conjunct orders, which I analyze as an Agr node adjoined to T\(^0\), as well as the person prefix that occurs only in the independent order, which I regard as a proclitic in CP. The dependent agreement morphemes index whichever argument(s) Infl\(^0\) agrees with, a relationship that can be formalized using a case-tracking mechanism. When Infl\(^0\) agrees with two arguments, portmanteau agreement is possible. This characterization of the dependent agreement morphemes explains why portmanteau agreement is more widespread in the conjunct order than in the independent, since I have proposed in preceding chapters that conjunct-order Infl\(^0\) agrees with both arguments more often than independent-order Infl\(^0\) does. The analysis of Infl\(^0\) that was proposed solely on the basis of theme signs thus accounts for the patterning of portmanteau agreement as well, an outcome
that further strengthens the case for regarding the agreement probe on Infl\textsuperscript{0} as a central pillar of Algonquian morphosyntax in both the independent and conjunct orders.

## 6.4 The T/D agreement system

This section examines the T/D agreement system of Proto-Algonquian, which occurs only in the independent order. Diachronically, the existence of this additional agreement system is a result of the nominal origins of the independent inflection, as I will discuss in greater detail below. The system consists of two morphemes: the formative, which I will analyze as T\textsuperscript{0}, and the outer suffix, which I will analyze as an enclitic D element. The positions of these two morphemes are indicated in the independent-order verb template in (38).

(38) PA independent-order T/D agreement system (template repeated from (4))

<table>
<thead>
<tr>
<th>Prefix</th>
<th>Root</th>
<th>Final</th>
<th>Theme Signs</th>
<th>Neg</th>
<th>Formative</th>
<th>Inner Suffix</th>
<th>Mode</th>
<th>Outer Suffix</th>
</tr>
</thead>
<tbody>
<tr>
<td>proclitic</td>
<td>Root</td>
<td>v\textsuperscript{0}</td>
<td>Voice\textsuperscript{0}, Infl\textsuperscript{0}</td>
<td>Neg\textsuperscript{0}</td>
<td>T\textsuperscript{0}</td>
<td>Agr</td>
<td>Mod\textsuperscript{0}</td>
<td>enclitic</td>
</tr>
</tbody>
</table>

I will show that the allomorphs of T\textsuperscript{0} correspond systematically with the target of the outer suffix in a way that can be captured by an agreement analysis in which T\textsuperscript{0} probes for \{uD, uDefinite\} and the outer suffix indexes the goal of T\textsuperscript{0}. From a diachronic perspective, the sensitivity of the T/D agreement system to definiteness is unsurprising, as the outer suffix originated as a nominal definiteness marker. When the independent-order verb inflection was innovated through the addition of noun inflection to the verb, the function of the outer suffix shifted from marking definiteness (interpretable \{D, Definite\}) to agreeing with definiteness (uninterpretable \{uD, uDefinite\}).

Before proceeding, an important qualification should be noted: of all the reconstructed grammatical properties of Proto-Algonquian discussed in this thesis, the T/D agreement system exhibits by far the most variation in the daughter languages. Whereas the description of Proto-Algonquian theme signs and Infl/Person agreement can be carried over largely intact to most daughter languages, there is no language that continues the reconstructed T/D agreement system unchanged. The system has undergone significant—and different—changes across the daughter languages. Unlike elsewhere in this thesis, then, where the analysis is likely to be at least somewhat applicable to many of the daughter languages, the analysis of the T/D agreement system applies to reconstructed Proto-Algonquian only.
Despite this reduced empirical foundation, it is still worthwhile to pursue an analysis of the Proto-Algonquian T/D agreement system. First, although the data exists only as a reconstruction, the details that are relevant to this thesis are agreed to by both Goddard (1967, 1974b, 2007) and Pentland (1999), and each individual component of the reconstructed system is continued by at least one daughter language, which I will identify as the discussion progresses. We can thus be fairly confident of the plausibility of the reconstructed system. Furthermore, even though no language continues the entire reconstructed T/D system intact, remnants of the system continue to play various important roles throughout the family. An analysis of the Proto-Algonquian T/D system will provide a useful starting point for understanding how the present-day remnants of the system developed their current functions.

The section will begin by considering the two components of the T/D agreement system separately. I will argue that the formative is in fact T⁰ (§6.4.1) while the outer suffix is an enclitic D element (§6.4.2). I will then develop an agreement analysis that formalizes the correspondence between T⁰ and the enclitic (§6.4.3).

6.4.1 The formative as T

The morpheme that Goddard (2007) refers to as the FORMATIVE has a variety of exponents: -ehm, -w′, -w, and -en(e·), as illustrated in (39). Note that the contrast between -w′ and -w is morphophonemic only: both exponents are phonemically /w/, but the -w′ exponent triggers umlaut of a preceding -a· to -e· while the -w exponent does not.⁴

(39) Proto-Algonquian formatives

\[
\begin{array}{ccc}
\text{[ehm]} & 1p & \text{ne- pankihšin} & \text{-ehm} & \text{-ena-} & \text{‘we fall’} \\
\text{fall} & & -\text{FTV} & -1p \\
\text{[w′]} & 3p & \text{pankihšin} & \text{-w′} & \text{-aki} & \text{‘they fall’} \\
\text{fall} & & -\text{FTV} & -3p \\
\text{[w]} & 1p-3p & \text{ne- wa·pam} & \text{-a-} & \text{-w} & \text{-ena-n -aki} & \text{‘we see them (anim.)’} \\
\text{fall} & -\text{OBJ} & -\text{FTV} & -1p & -3p \\
\text{[en(e·)]} & 1p-0p & \text{ne- wa·pant} & \text{-a-} & \text{-ne-} & \text{-na-n -ari} & \text{‘we see them (inan.)’} \\
\text{fall} & -\text{OBJ} & -\text{FTV} & -1p & -0p \\
\end{array}
\]

⁴However, Proulx (1980a, 1980b, 1982, 1984a, 1984c, 1990) disagrees with the Goddardian reconstruction of the independent order and argues for a quite different approach.

⁵I have chosen to mark the umlaut-triggering exponent using Pentland’s (1999:240) notation -w′ rather than Goddard’s (2007:232) notation -w, although I take no position on whether the morpheme was indeed a glottalized -w in Pre-PA, as Pentland’s notation is intended to indicate.
The data in (39) alone is not sufficient to determine the conditioning of the various exponents of the formative, an issue that we will turn to below (§6.4.3). The data in (39) is also not sufficient to answer a more basic question: does the formative make a semantic contribution to the interpretation of the clause? An important clue to the answer comes from a rather archaic construction in Plains Cree: the *ht-preterit* described by Wolfart (1973:43–45) (see also Wolfart 1996:405 and Pentland 1999:258). In this construction, the formatives in (39) are replaced by an additional formative *-htay~hta-*, as in the example in (40a), and the result is a past-tense interpretation. The corresponding PA non-preterit form is shown in (40b) for comparison.

(40) a. Plains Cree ht-preterit (Pentland 1999:258)

```
1p—3p ni-
1 see 3obj fTV 1p 3p
wa-pam
-hta-na-n
-w-ena-n-aki
'saw saw them'
```

b. Corresponding PA non-preterit form (from (39) above)

```
1p—3p ne-
1 see 3obj fTV 1p 3p
wa-pam-w-
en-a-n-aki
'see saw them'
```

The ht-preterit is found in Cree only, so it cannot be reconstructed for Proto-Algonquian by the standard comparative method, but other considerations indicate that it is nevertheless an archaism (Goddard 2007:263). The primary evidence for the archaic status of the Plains Cree ht-preterit is the fact that it inflects with all three person prefixes (i.e. the reflexes of PA *ne*-1, *ke*-2, *we*-3). The presence of all three prefixes is significant because the Cree verb has otherwise lost the 3rd-person prefix *we*-(Cree *o*-), as illustrated in (41).

(41) Plains Cree: 3rd-person verb prefix retained only in the ht-preterit

```
<table>
<thead>
<tr>
<th>HT-PRETERIT:</th>
<th>ELSEWHERE:</th>
</tr>
</thead>
<tbody>
<tr>
<td>three prefixes</td>
<td>two prefixes</td>
</tr>
<tr>
<td>1  ni-V…</td>
<td>1  ni-V…</td>
</tr>
<tr>
<td>2  ki-V…</td>
<td>2  ki-V…</td>
</tr>
<tr>
<td>3  o-V…</td>
<td>3  V…</td>
</tr>
</tbody>
</table>
```

The retention of the 3rd-person prefix indicates that the ht-preterit cannot be a recent innovation in Cree, as its development must date back to a time before the 3rd-person prefix was otherwise lost. Since the loss of the 3rd-person prefix is a defining property of the Cree verb, this is tantamount to saying that the development of the ht-preterit must date back to a time
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before Cree was Cree—that is, either to Proto-Algonquian or to an early stage of Pre-Cree that retained the verb inflection of Proto-Algonquian.

For our purposes, these two stages—PA and early Pre-Cree—are equivalent, as the verb inflection is the same in either case. For simplicity, I will assume, with Goddard (2007:263), that the -ht-preterit goes back to PA, although the analysis would be unaffected if we referred to the relevant stage as early Pre-Cree instead. Goddard reconstructs PA -entay as the ancestor of the Plains Cree preterit formative -ihtay~ihta- shown in (40a) above. We can thus convert the Cree preterit form in (40a) into the PA preterit form in (42a) by replacing the Cree formative -ihta- with its PA ancestor -entay. This newly-identified PA preterit form contrasts minimally with the familiar non-preterit form in (42b).

(42) a. Proto-Algonquian preterit (based on Plains Cree form)

\[
1p-3p \quad ne-\text{wa-pam-}a \cdot \quad [\text{-entay}] \quad \text{ena-n-aki} \quad '\text{we saw them'}
\]

b. Proto-Algonquian non-preterit

\[
1p-3p \quad ne-\text{wa-pam-}a \cdot \quad [\text{-w}] \quad \text{ena-n-aki} \quad '\text{we see them'}
\]

The function of the formative has now become clear. Since the only difference between the preterit and non-preterit forms in (42) is the formative, the formative must be a tense marker: -entay marks the preterit (glossed as T_\text{past}^0) while -w occurs in non-preterit forms (glossed as T_\text{pres}^0 for convenience). The same argument can be made for all four of the PA formatives shown in (39) above (i.e. -ehm, -w’, -w, and -en(e∙)): in each case, the evidence from Plains Cree indicates that the PA formative was replaced by -entay in the preterit, as shown in (43). (I have reconstructed the PA preterit forms based on the Plains Cree forms in Wolfart 1973:43 and Pentland 1999:258, which are also shown in (43) for reference. As discussed above, the analysis is unaffected if we choose to regard the reconstructed preterit forms as belonging to early Pre-Cree rather than PA.)

---

6 Strictly speaking, -w is better characterized as an elsewhere form of T_\text{pres}^0 rather than an explicit present-tense marker, since it can co-occur with various types of tense/aspect/mood marking in other morphological slots such as the auxiliary-like preverbs. The abbreviation “\text{PRES}” and any references to these forms as “present” should be taken only as a convenient shorthand for “non-preterit”. 
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(43) PA formatives all replaced by -entay in the preterit

a. PA formative -ehm replaced by -entay in the preterit

<table>
<thead>
<tr>
<th>PA PRESENT</th>
<th>PA/PRE-CREE PRETERIT</th>
<th>PLAINS CREE PRETERIT</th>
</tr>
</thead>
<tbody>
<tr>
<td>ne-pankihšin-ehm</td>
<td>ne-pankihšin-entay</td>
<td>ni-pahkisin-ihta-n</td>
</tr>
<tr>
<td>1-fall-PRES-1p</td>
<td>1-fall-PAST-1p</td>
<td>1-fall-PAST-1p</td>
</tr>
<tr>
<td>‘we fall’</td>
<td>‘we fell’</td>
<td>‘we fell’</td>
</tr>
</tbody>
</table>

b. PA formative -w’ replaced by -entay in the preterit

<table>
<thead>
<tr>
<th>PA PRESENT</th>
<th>PA/PRE-CREE PRETERIT</th>
<th>PLAINS CREE PRETERIT</th>
</tr>
</thead>
<tbody>
<tr>
<td>pankihsin-w’</td>
<td>we-pankihsin-entay-wa-w</td>
<td>o-pahkisin-ihta-wo-w</td>
</tr>
<tr>
<td>fall-PRES-3p</td>
<td>3-fall-PAST-3p</td>
<td>3-fall-PAST-3p</td>
</tr>
<tr>
<td>‘they fall’</td>
<td>‘they fell’</td>
<td>‘they fell’</td>
</tr>
</tbody>
</table>

c. PA formative -w replaced by -entay in the preterit

<table>
<thead>
<tr>
<th>PA PRESENT</th>
<th>PA/PRE-CREE PRETERIT</th>
<th>PLAINS CREE PRETERIT</th>
</tr>
</thead>
<tbody>
<tr>
<td>ne-wa-pam-a-w</td>
<td>ne-wa-pam-a-ntay</td>
<td>ni-wa-pam-a-ihta-na-n-ak</td>
</tr>
<tr>
<td>1-see-3OBJ-PRES-1p-3p</td>
<td>1-see-3OBJ-PAST-1p-3p</td>
<td>1-see-3OBJ-PAST-1p-3p</td>
</tr>
<tr>
<td>‘we see them’</td>
<td>‘we saw them’</td>
<td>‘we saw them’</td>
</tr>
</tbody>
</table>

d. PA formative -en(e∙) replaced by -entay in the preterit

<table>
<thead>
<tr>
<th>PA PRESENT</th>
<th>PA/PRE-CREE PRETERIT</th>
<th>PLAINS CREE PRETERIT</th>
</tr>
</thead>
<tbody>
<tr>
<td>ne-wa-pant-a-n</td>
<td>ne-wa-pant-a-ntay</td>
<td>ni-wa-paht-e-h</td>
</tr>
<tr>
<td>1-see-0OBJ-PRES-0s</td>
<td>1-see-0OBJ-PAST-0s</td>
<td>1-see-0OBJ-PAST</td>
</tr>
<tr>
<td>‘I see it’</td>
<td>‘I saw it’</td>
<td>‘I saw it’</td>
</tr>
</tbody>
</table>

The exponents of the PA formative (T₀) thus have the following distribution: -entay occurs in the preterit while -ehm, -w’, -w, and -en(e∙) occur in non-preterit forms (glossed “PRES” above). As a first approximation, then, we can posit the spell-out rule in (44).

(44) Spell-out rule for the formative (T₀) in the PA independent order

\[ T₀^{\text{PAST}} \leftrightarrow -\text{entay} \]

\[ T₀ \leftrightarrow -\text{ehm, -w', -w, -en(e∙)} \]

---

7The sources available to Wolfart (1973) attest only the h-preterit (with formative -h) for this form, not the ht-preterit (with formative -htay). If we go back far enough, however, these two forms are equivalent, as the h-preterit is a phonologically reduced version of the ht-preterit (David Pentland, personal communication).
This rule expresses the tense-marking function of the formative but does not account for the conditioning of the four non-preterit allomorphs. In order to account for these allomorphs, we must first consider the other member of the T/D agreement system: the outer suffix. I will begin by examining the properties of the outer suffix on its own (§6.4.2). I will then show that the four non-preterit allomorphs of T⁰ correspond systematically with the outer suffix in a way that can be captured by agreement (§6.4.3).

6.4.2 The outer suffix as an enclitic

This section examines the properties of the outer suffix, which I will argue is in fact a 3rd-person D enclitic. This proposal reflects a recent development in the theoretical literature, in which it has been argued that many instances of object agreement are better understood as object clitic doubling (e.g. Arregi and Nevins 2008; Woolford 2008, 2010; Preminger 2009; Nevins 2011; Kramer forthcoming). In the context of this work, the term “clitic” refers more specifically to a pronominal clitic—that is, a morpheme of category D—while true agreement is taken to involve the valuation of phi-features on a clausal functional head (e.g. Nevins 2011:961). This definition of clitic-hood is morphosyntactic, as it hinges solely upon the grammatical category of the relevant morpheme rather than upon its phonological properties. Since a morphosyntactic clitic could, in principle, be realized phonologically as either a clitic or an affix, the morphosyntactic properties of any apparent agreement affix must be carefully considered in order to ascertain whether it is truly agreement or is instead a clitic. Kramer (forthcoming) illustrates the application of such considerations to Amharic object agreement.

What is the status of the Algonquian outer suffix with respect to the clitic-agreement distinction? To answer this question, I will compare the properties of the outer suffix with those of the inner suffix, which was examined in Section 6.3.1 above. It turns out that the two suffixes are strikingly different under at least four criteria: (1) position, (2) form, (3) conditioning, and (4) tense-variance. Taken together, these differences suggest that the inner suffix is agreement while the outer suffix is a clitic.

6.4.2.1 Criterion 1: Position

The positions of the inner and outer suffixes in the PA verb template are shown in (45).

---

8 Portions of this section were presented at WCCFL 31 (Oxford 2013) and have been published in the WCCFL 31 proceedings (Oxford 2014). I am grateful to Bronwyn Bjorkman for invaluable suggestions regarding the presentation of this material.
The inner suffix appears between two inflectional suffixes (T and Mod). Clitics normally appear outside of inflectional morphology (Zwicky and Pullum 1983) or adjacent to the stem (Woolford 2010; Nevins 2011), but not between inflectional suffixes, so the position of the inner suffix is more consistent with agreement than clitic doubling.9 The outer suffix, on the other hand, always appears in absolute word-final position. This position is consistent with either clitic doubling or agreement.

6.4.2.2 Criterion 2: Form

Recall from Chapter 1 that the independent-order verb inflection originated in Pre-Proto-Algonquian through the addition of noun inflection to the verb. The outer suffix thus appears not only on verbs, but in its “original home” on the noun as well. In Proto-Algonquian proper, the outer suffix appears on all nouns, but Goddard (2007:265) suggests that in the stage of Pre-Proto-Algonquian at which the independent-order inflection developed, the outer suffix appeared on definite nouns only, thus functioning as a suffixal definite article. This state of affairs is summarized in (46).

(46) Contexts for the outer suffix (after Goddard 2007:265)

<table>
<thead>
<tr>
<th>PRE-PROTO-ALGONQUIAN</th>
<th>PROTO-ALGONQUIAN PROPER</th>
</tr>
</thead>
<tbody>
<tr>
<td>definite nouns (= definite article)</td>
<td>all nouns</td>
</tr>
<tr>
<td>independent-order verbs</td>
<td>independent-order verbs</td>
</tr>
</tbody>
</table>

In Pre-Proto-Algonquian, then, the verbal outer suffix was homonymous with the nominal definite article. This homonymy is strongly reminiscent of clitic doubling, as there is a crosslinguistic tendency for clitics and definite articles to be homonymous (Corver and Delfitto 1999:813), as, for example, in the case of French le, la, les.

The inner suffix, on the other hand, has no identity with any D elements. This state of affairs is compatible with either agreement or clitic doubling.

9But see the “endoclitics” of Harris 2002.
6.4.2.3 Criterion 3: Conditioning

The outer suffix has an important property that has not yet been discussed in this thesis: its appearance is conditioned by both person and, crucially, definiteness. With respect to person, the outer suffix only has third-person forms. Here I use “third-person” in the broad sense, including proximate animates (notated as ‘3’ in this thesis), obviative animates (notated as ‘4’), and inanimates (notated as ‘0’). The complete set of Proto-Algonquian outer suffix forms is shown in (47); note the absence of forms for 1st or 2nd persons.

(47) PA outer suffix forms (Bloomfield 1946:95; Pentland 1999:228; Goddard 2007:209)

<table>
<thead>
<tr>
<th>INANIMATE</th>
<th>PROXIMATE</th>
<th>OBIATIVE</th>
</tr>
</thead>
<tbody>
<tr>
<td>0s -i</td>
<td>3s -a</td>
<td>4s -ari</td>
</tr>
<tr>
<td>0p -ari</td>
<td>3p -aki</td>
<td>4p -ahi</td>
</tr>
</tbody>
</table>

This is not all there is to say about the outer suffix, however. In transitive verb forms in which the outer suffix indexes the object, the outer suffix appears only when the object is definite. This contrast is illustrated by the hypothetical Proto-Algonquian sentences in (48), which are based on the Proto-Algonquian sentences posited by Pentland (1999:229). Both sentences contain the transitive verb *wa-pam-* ‘see’. In (48a), where the 3p object is definite, the 3p outer suffix -aki appears on the verb. In (48b), where the 3p object is indefinite, the verb lacks an outer suffix.

(48) Occurrence of Proto-Algonquian verbal outer suffix conditioned by definiteness

a. 3p definite object: outer suffix appears on verb

```
newa-pama-wna-aki aθemo-ki  ‘we see the dogs’
ne- wa-pam -a -w -ena-n -aki aθemw -aki
1- see -3OBJ -PRES -1p -3p dog -3p
```

b. 3p indefinite object: no outer suffix appears on verb

```
newa-pama-hmena- aθemo-ki  ‘we see dogs’
ne- wa-pam -a -hm -ena - (Ø) aθemw -aki
1- see -3OBJ -PRES -1p dog -3p
```

Algonquian transitive verbs thus have two distinct paradigms: an OBJECTIVE paradigm, in which the outer suffix is employed to index the lower-ranked argument, and an ABSOLUTE paradigm, in which it is not (e.g. Goddard 2007). Some objective and absolute forms of the
Proto-Algonquian TA verb are compared in (49). In absolute forms, Algonquianists notate the absence of the outer suffix by placing the argument that the outer suffix would otherwise index in parentheses, e.g. ‘1p(—3)’, as opposed to ‘1p—3s’ for an objective form.

(49) The objective-absolute contrast in some Proto-Algonquian TA forms

<table>
<thead>
<tr>
<th>OBJECTIVE FORMS</th>
<th>ABSOLUTE FORMS</th>
</tr>
</thead>
<tbody>
<tr>
<td>(definite object, outer suffix)</td>
<td>(indefinite object, no outer suffix)</td>
</tr>
<tr>
<td>1p—3s ne- wa-pam -a- w -ena-n</td>
<td>1p(—3) ne- wa-pam -a- -hm -ena-Ø</td>
</tr>
<tr>
<td>1- see -3OBJ -PRES -1p -3s</td>
<td>1- see -3OBJ -PRES -1p</td>
</tr>
<tr>
<td>‘we (excl.) see him/her’</td>
<td>‘we (excl.) see someone’</td>
</tr>
<tr>
<td>21p—3s ke- wa-pam -a- w -enaw -a</td>
<td>21p(—3) ke- wa-pam -a- -hm -ena-Ø</td>
</tr>
<tr>
<td>2- see -3OBJ -PRES -21p -3s</td>
<td>2- see -3OBJ -PRES -21p</td>
</tr>
<tr>
<td>‘we (incl.) see him/her’</td>
<td>‘we (incl.) see someone’</td>
</tr>
<tr>
<td>2p—3s ke- wa-pam -a- w -wa·w -a</td>
<td>2p(—3) ke- wa-pam -a- -hm -wa-Ø</td>
</tr>
<tr>
<td>2- see -3OBJ -PRES -2p -3s</td>
<td>2- see -3OBJ -PRES -2p</td>
</tr>
<tr>
<td>‘you (pl.) see him/her’</td>
<td>‘you (pl.) see someone’</td>
</tr>
</tbody>
</table>

In the daughter languages, the objective-absolute contrast is attested in the Eastern Algonquian languages Delaware, Western Abenaki, and Mahican, and, to a reduced extent, in the Central Algonquian language Ojibwe (Goddard 1967, 1974b, 2007). Traces of the contrast are also scattered throughout the languages in which its full-fledged function has been lost.

At first glance, the objective-absolute contrast may appear to be a case of differential object marking, a phenomenon in which specific, definite, and/or animate objects receive special case-marking or agreement (e.g. Bosson 1983–84, 1985; Aissen 2003). Lima (2006) has proposed that differential object marking can be understood as a result of object shift (Diesing 1992, 1997): specific, definite, and/or animate objects move to a higher position in which special marking is available while non-specific, indefinite, and/or inanimate objects do not, as sketched in (50).

(50) Differential object marking as a result of object shift

Form with object marking

Form without object marking
Based on the data presented in (49) above, the Proto-Algonquian outer suffix might appear to qualify for such an analysis. However, this is not the case: a differential object marking analysis is not tenable for Proto-Algonquian. The reason why such an analysis is ruled out lies in the direct-inverse system of Algonquian. In direct forms like those in (49) above, the outer suffix indexes the object and occurs only when the object is definite, as in (51).\footnote{The TI forms in (51) are not direct in the strictest sense of the term, as the direct-inverse distinction technically applies only to TA forms. Nevertheless, the TI forms in (51) pattern with direct rather than inverse TA forms in that the prefix and inner suffix index the subject while the outer suffix indexes the object. The forms in (51) are thus better described as direct than inverse.}

(51) Direct forms: outer suffix marks object

\begin{itemize}
  \item \textbf{OBJECTIVE FORM:} 1p—0s
  \begin{itemize}
    \item definite object; outer suffix appears
    \begin{align*}
      \text{ ne- } & \text{ wa-pant } -a- \quad \text{-ne- } \quad \text{-na-n} \quad \underline{[i]} \\
      1- & \text{ see} \quad \text{-0OBJ } \text{-PRES } \text{-1p } \text{-0s}
    \end{align*}
    \end{itemize}
  \item \textbf{ABSOLUTE FORM:} 1p(—0)
  \begin{itemize}
    \item indefinite object; no outer suffix
    \begin{align*}
      \text{ ne- } & \text{ wa-pant } -e- \quad \text{-hm } \quad \text{-ena-} \quad \underline{(\emptyset)} \\
      1- & \text{ see} \quad \text{-0OBJ } \text{-PRES } \text{-1p}
    \end{align*}
  \end{itemize}
\end{itemize}

\begin{itemize}
  \item \text{‘we see it’}
  \item \text{‘we see something’}
\end{itemize}

However, in inverse forms, the outer suffix instead indexes the subject and appears only when the subject is definite, as in (52).

(52) Inverse forms: outer suffix marks subject

\begin{itemize}
  \item \textbf{OBJECTIVE FORM:} 0s—1p
  \begin{itemize}
    \item definite subject; outer suffix appears
    \begin{align*}
      \text{ ne- } & \text{ wa-pam } -ekw \quad \text{-ene- } \quad \text{-na-n} \quad \underline{[i]} \\
      1- & \text{ see} \quad \text{-INV } \text{-PRES } \text{-1p } \text{-0s}
    \end{align*}
    \end{itemize}
  \item \textbf{ABSOLUTE FORM:} (0—)1p
  \begin{itemize}
    \item indefinite subject; no outer suffix
    \begin{align*}
      \text{ ne- } & \text{ wa-pam } -ekw \quad \text{-ehm } \quad \text{-ena-} \quad \underline{(\emptyset)} \\
      1- & \text{ see} \quad \text{-INV } \text{-PRES } \text{-1p}
    \end{align*}
  \end{itemize}
\end{itemize}

\begin{itemize}
  \item \text{‘it sees us’}
  \item \underline{‘something sees us’}
\end{itemize}

The outer suffix thus displays differential object marking in direct forms and differential subject marking in inverse forms. The patterning of the outer suffix therefore cannot be explained as a case of differential object marking, as an object-focused analysis only accounts for half of the pattern. (In the analysis sketched in (50), for example, the movement of definite objects tells us nothing about why the subject can be treated differentially as well.)

If the sensitivity of the outer suffix to definiteness is not a case of differential object marking, then how can we account for it? I suggest, instead, that sensitivity to definiteness is simply a built-in component of the grammatical properties of the outer suffix. (This suggestion will be formalized more explicitly in the analysis in Section 6.4.3 below.) From a diachronic perspective, this conclusion is unsurprising, as the outer suffix originated in Pre-
Proto-Algonquian as a nominal definite article (as discussed in (46)). It is thus natural for definiteness to remain a component of the outer suffix in its verbal function.

With respect to the topic of this section—that is, the status of the inner and outer suffixes as clitics or agreement—the upshot of this lengthy discussion is that the conditioning of the outer suffix displays a sensitivity to the definiteness of the indexed DP that cannot straightforwardly be captured under a differential object agreement analysis. Instead, the behavior of the outer suffix seems more like that of a clitic, as clitic doubling is often conditioned by referential factors (e.g. Suñer 1988; Dobrovie-Sorin 1990; Anagnostopoulou 2006).

The criterion of conditioning is relevant to the inner suffix as well, as its distribution is also restricted, but by a different factor. Whereas the outer suffix is conditioned by definiteness, the inner suffix is instead conditioned by number: it appears only when the indexed argument is plural (1/2/3s -Ø, 1p -ena-n, 21p -enaw, 2/3p -wa-w). While null singular agreement is unremarkable (e.g. French /ekut/ ‘listen (1/2/3s)’, /ekutõ/ ‘listen (1p)’, /ekute/ ‘listen (2p)’), it would be at least somewhat unusual for clitic doubling to apply only to plural DPs. The behavior of the inner suffix is thus more akin to agreement in this respect.

6.4.2.4 Criterion 4: Tense-variance

The final diagnostic for clitic-ness that I will discuss is a criterion proposed by Nevins (2011). According to Nevins, clitics, as D elements, cannot display allomorphy conditioned grammatically by tense, while true agreement, which occurs on functional heads in the clausal spine, can. It is difficult to apply this test to Proto-Algonquian, as the reconstruction of non-present forms is often unclear, so I will instead consider two of the daughter languages: Ojibwe and Innu. In both of these languages, the formative and the inner suffix have arguably fused together into a single morpheme, and in both languages this fused inner suffix has suppletive allomorphs in the present and past tenses while the outer suffix does not, as shown in (53).
(53) Inner suffix is tense-variant, outer suffix is not

   a. Ojibwe (Valentine 2001:291–2)\(^{11}\)

<table>
<thead>
<tr>
<th>PFX</th>
<th>STEM</th>
<th>T.S.</th>
<th>NEG</th>
<th>INNER</th>
<th>T(^{12})</th>
<th>OUTER</th>
</tr>
</thead>
<tbody>
<tr>
<td>Present</td>
<td>n-</td>
<td>wa-bm-a-</td>
<td>-si</td>
<td>-wa-na-ny</td>
<td>-Ø</td>
<td>-ag</td>
</tr>
<tr>
<td>Past</td>
<td>n-</td>
<td>wa-bm-a-</td>
<td>-si</td>
<td>-mina-</td>
<td>-bany</td>
<td>-ag</td>
</tr>
<tr>
<td>1- see</td>
<td>-3OBJ</td>
<td>-NEG</td>
<td>-1p</td>
<td>(PRES/PAST)</td>
<td>-3p</td>
<td></td>
</tr>
</tbody>
</table>

   'we don’t see them’

   'we didn’t see them’

   b. Innu (Clarke 1982:69, 73)

<table>
<thead>
<tr>
<th>PFX</th>
<th>STEM</th>
<th>T.S.</th>
<th>INNER</th>
<th>OUTER</th>
</tr>
</thead>
<tbody>
<tr>
<td>Present</td>
<td>n-</td>
<td>wa-pam-a-</td>
<td>-a</td>
<td>-na-n</td>
</tr>
<tr>
<td>Past</td>
<td>n-</td>
<td>wa-pam-a-</td>
<td>-a</td>
<td>-t a-n</td>
</tr>
<tr>
<td>1- see</td>
<td>-3OBJ</td>
<td>-1p (PRES/PAST)</td>
<td>-3p</td>
<td></td>
</tr>
</tbody>
</table>

   'we see them’

   'we saw them’

In at least Ojibwe and Innu, then, Nevins’ diagnostic requires us to classify the tense-variant inner suffix as agreement. With respect to the tense-invariant outer suffix, Nevins’ diagnostic is inconclusive: while tense-invariance is consistent with clitic-hood, Nevins does not rule out the possibility of tense-invariant agreement as well, so the outer suffix could be either.

\(^{11}\)In addition to the grammatically-conditioned allomorphy of the inner suffix, phonologically-conditioned allomorphy of the outer suffix is also possible: in the Ojibwe past-tense form, the outer suffix -ag is realized as -i∙g following the past suffix -bany. However, the conditioning of this allomorphy is phonological (coalescence of bany + ag → bani∙g; Valentine 2001:275), not grammatical, and is thus not relevant to Nevins’ diagnostic.

\(^{12}\)The morpheme that I label as “T” in these Ojibwe examples is not the formative, which originally occurred between Neg and the inner suffix (see template in (4) above) and has left a trace in the initial -w and -m of the Ojibwe inner suffixes in this table. The morpheme labelled as “T” here corresponds to the morpheme that I have labelled as Mod\(^{0}\) in PA, which expresses a variety of aspectual, modal, and temporal contrasts in the daughter languages. In these Ojibwe examples it encodes tense.
6.4.2.5 Summary: Status of the outer suffix as an enclitic

The properties of the inner and outer suffixes are summarized in (54).

<table>
<thead>
<tr>
<th>CRITERION</th>
<th>INNER SUFFIX</th>
<th>OUTER SUFFIX</th>
</tr>
</thead>
<tbody>
<tr>
<td>Position</td>
<td>Between suffixes</td>
<td>Word-final</td>
</tr>
<tr>
<td>Form</td>
<td>Distinct from article</td>
<td>Shared with article (Pre-PA)</td>
</tr>
<tr>
<td>Conditioning</td>
<td>Number</td>
<td>Definiteness</td>
</tr>
<tr>
<td>Tense-variance</td>
<td>Tense-variant (Ojibwe, Innu)</td>
<td>Tense-invariant</td>
</tr>
</tbody>
</table>

The properties of the two suffixes are clearly quite different. Taken alone, none of the criteria in (54) is sufficient to unambiguously classify both suffixes, but when all four criteria are considered together, a clear picture emerges: all of the properties of the inner suffix are consistent with true agreement while all of the properties of the outer suffix are consistent with clitic doubling. I thus conclude that the inner suffix is true agreement, as already proposed (§6.3.1.3), while the outer suffix is an enclitic. The syntactic status of the enclitic and its relationship to $T_0$ (the formative) are considered in the following section.

6.4.3 The connection between $T$ and the enclitic

The preceding sections have examined the formative and the outer suffix independently, concluding that the formative is $T_0$ (with a variety of mysterious allomorphs in the present tense) while the outer suffix is a D-like enclitic. In this section, I will show that $T_0$ and the enclitic pattern together in a way that can be analyzed as agreement. In particular, I will propose that $T_0$ probes for $[uD, u\text{Definite}]$ and triggers clitic doubling of the DP that it agrees with, thus creating the enclitic. Only by recognizing this agreement relation can we begin to explain the allomorphy of $T_0$ and the distribution of the enclitic.

The discussion will be structured according to the allomorphs of present-tense $T_0$. In Section 6.4.1 above, we saw that $T_0\text{pres}$ has the allomorphs -ehm, -w', -w, and -en(e·). Goddard (2007:264) observes that the distribution of these allomorphs correlates systematically with the patterning of the enclitic. (See also Pentland 1999:239–41.) These correlations, translated into the theoretical terms of this thesis, are listed in (55).
(55) Correlations between the allomorphs of $T^0_{\text{pres}}$ and the patterning of the enclitic

<table>
<thead>
<tr>
<th>$T^0_{\text{pres}}$</th>
<th>STATUS OF ENCLITIC</th>
</tr>
</thead>
<tbody>
<tr>
<td>-ehm</td>
<td>no enclitic</td>
</tr>
<tr>
<td>-w'</td>
<td>enclitic indexes the higher-ranked specifier of VoiceP (i.e. the same argument that Infl$^0$ agrees with)</td>
</tr>
<tr>
<td>-w</td>
<td>enclitic indexes the lower-ranked (and animate) specifier of VoiceP</td>
</tr>
</tbody>
</table>
| -en(e·) elsewhere   | 1. enclitic indexes the lower-ranked (and inanimate) specifier of VoiceP  
                             2. enclitic indexes the specifier of $v$P (i.e. animate or inanimate secondary object) |

The following sections discuss each correlation in turn and offer a preliminary analysis. Some loose ends will remain, but I believe that the discussion will nevertheless demonstrate the connection between $T^0$ and the enclitic as well as the necessity of an agreement analysis.

### 6.4.3.1 The -ehm allomorph of $T$

The correlation between the -ehm allomorph and the enclitic is easily stated: the -ehm allomorph occurs whenever the enclitic is absent (cf. Goddard 2007:264). There are two contexts in which this is the case: (1) forms in which no 3rd-person argument is present, and (2) forms in which the only 3rd-person argument is a lower-ranked indefinite.

1. **Forms in which no 3rd-person argument is present.** When no 3rd-person argument is present in the clause, the enclitic does not appear. This is the case in three sets of forms, exemplified in (56): (a) intransitive forms whose single argument is 1st/2nd-person, (b) transitive you-and-me forms, and (c) transitive unspecified actor forms whose patient is 1st/2nd-person.\(^\text{13}\) In all such forms, the enclitic is absent and the -ehm allomorph of $T^0$ occurs.

\(^\text{13}\)My claim that the enclitic is absent in the unspecified actor form in (56c) may appear to be contradicted by the presence of word-final -i, which has the same form as the inanimate singular enclitic -i. However, both Goddard and Pentland consider the -i in (56c) to be distinct from the inanimate singular -i. Goddard (2007:252) states that the -i in (56c) “cannot be clearly identified with any of the other suffixes of this shape” while Pentland (1999:244) regards it as a distinct default suffix that occurs “when the lowest participant is not a third person.” Pentland reconstructs this default final -i in the forms in (56a) and (56b) as well (see e.g. his example (21b); Pentland 1999:239), but Goddard (2007:225) says that only the reconstruction in (56c) is well supported. In any case, beyond Pentland’s suggestion that it is a default, the nature of this “other -i” is mysterious.
(56) No 3rd-person argument present: enclitic is absent and -ehm occurs

a. Intransitive forms with a 1st/2nd-person argument (e.g. 1p)

\[
\begin{align*}
\text{ne- } & \text{ pankihšin } \underline{\text{-ehm}} \ -\text{ena- } \underline{(\emptyset)} \\
1- & \text{ fall } \ -\text{PRES } -1p \\
\end{align*}
\]

‘we fall’

b. Transitive you-and-me forms (e.g. 1p—2)

\[
\begin{align*}
\text{ke- } & \text{ wa∙pam } \underline{-e\emptyset} \ -\text{ehm} \ -\text{ena- } \underline{(\emptyset)} \\
1- & \text{ fall } \ -\text{INV } -\text{PRES } -1p \\
\end{align*}
\]

‘we see you’

c. Unspecified actor forms (e.g. X—1p)

\[
\begin{align*}
\text{ne- } & \text{ wa∙pam } \underline{-eko\cdot} \ -\text{hm} \ -\text{ena- } \underline{(\emptyset)} \\
1- & \text{ see } \ -\text{INV } -\text{PRES } -1p \\
\end{align*}
\]

‘we are seen, (someone) sees us’

2. Forms in which the only 3rd-person argument is a lower-ranked indefinite. In addition to the non-3rd-person forms in (56), the enclitic is also absent in certain forms that do include a 3rd-person. In particular, the enclitic is absent when the higher-ranked argument is 1st/2nd-person and the lower-ranked argument is an indefinite 3rd-person. An example is the 1p—3\text{Indef} form in (57a): the enclitic is absent and the -ehm allomorph of \(T^0\) occurs. To confirm that definiteness is the governing factor, compare the minimally different 1p—3\text{Def} form in (57b), which differs from (57a) only in the definiteness of the object. Here, the enclitic does appear, along with a different allomorph of \(T^0\) (-w, §6.4.3.3 below).

(57) a. 1p—3\text{Indef}: enclitic is absent, \(T^0\) realized as -ehm

\[
\begin{align*}
\text{ne- } & \text{ wa∙pam } \underline{-a\cdot} \ -\underline{\text{hm}} \ -\text{ena- } \underline{(\emptyset)} \\
1- & \text{ see } \ -\text{3OBJ } -\text{PRES } -1p \\
\end{align*}
\]

‘we see someone’

b. 1p—3\text{Def}: enclitic appears, \(T^0\) realized as -w

\[
\begin{align*}
\text{ne- } & \text{ wa∙pam } \underline{-a\cdot} \ -\underline{-w} \ -\text{ena-n } \underline{-a} \\
1- & \text{ see } \ -\text{3OBJ } -\text{PRES } -1p \ -3s \\
\end{align*}
\]

‘we see him/her’

To recap, then, the -ehm allomorph of \(T^0\) appears when the enclitic is absent, which occurs when either (1) no 3rd-person argument is present, or (2) the only 3rd-person argument is
a lower-ranked indefinite. When the enclitic is present, other allomorphs of T⁰ occur. To account for this pattern, I make the following proposals:

- **Proposal 1**: T⁰ probes for [uD, uDefinite].
- **Proposal 2**: When T⁰ finds a goal with the features [D, Definite], it creates a clitic copy of it, as in the 1p—3Def form in (57b) above (with the 3s enclitic -a). In this form, the -w allomorph of T⁰ occurs, which will be discussed further in Section 6.4.3.3 below. I propose that the clitic is created in Spec-TP, as shown in the structure in (58a). The clitic-creation property of T⁰ is thus similar to the EPP in that it requires the specifier of T⁰ to be filled; it differs only in that the material in Spec-TP is a clitic copy of the goal rather than the goal itself. Subsequent head-movement of the verb complex from T⁰ to Mod⁰ (see (5) above) derives the verb-final position of the clitic, as shown in (58b–c).

(58) a. T⁰ agrees with DP₃Def; clitic double (D_{CL}) created in Spec-TP

b. Head movement to Mod⁰ leaves clitic behind

c. Linearization: Root-v-Voice-Infl-Neg-T-Mod + D_{CL} (= template in (4))
• *Proposal 3:* When $T^0$ does not find a goal with the features [D, Definite], agreement fails and no clitic copy is created. This is the case in the non-3rd-person forms in (56) above, as no DPs are present in these forms. (I have proposed that 1st/2nd-person nominals in Proto-Algonquian are PersP rather than DP; see Section 5.4.) It is also the case in the 1p—3Indef form in (57a), as the sole DP does not have the feature [Definite]. In all of these forms, the enclitic is absent and the -ehm allomorph of $T^0$ occurs.

Beyond accounting for the absence of the enclitic, the failure of $T^0$-agreement also gives us a way to explain the conditioning of the -ehm allomorph of $T^0$. Following Preminger (2009), I assume that failed agreement can lead to the spell-out of default morphology rather than causing an outright crash of the derivation. I propose that the -ehm allomorph of $T^0$ is one such case of default morphology: it is a default form that is spelled out when $T^0$-agreement has failed. (This fits well with Pentland’s (1999:240) characterization of -ehm as a meaningless “filler” morpheme.) In contrast, the -w allomorph that appears in the 1p—3Def form in (57b) is the spell-out of $T^0$ when it has successfully undergone D-agreement. This analysis is formalized in the spell-out rule in (59).

(59) Spell-out of $T^0$ in the independent order

\[
T^0_{\text{Pres}} \leftrightarrow -w / [D] \\
\leftrightarrow -ehm \text{ elsewhere}
\]

In summary, I have proposed that $T^0$ carries a D-agreement probe that triggers clitic doubling of its goal. When no goal is found, clitic doubling does not occur and $T^0$ receives a default spell-out (-ehm). This analysis explains why the absence of the enclitic correlates with the occurrence of the -ehm allomorph of $T^0$: both outcomes result from the failure of D-agreement on $T^0$.

6.4.3.2 *The -w’ allomorph of T*

The remaining three allomorphs of present-tense $T^0$ occur when D-agreement is successful (that is, when the enclitic is present). The distinction among the three allomorphs depends on more nuanced factors. The conditioning of the -w’ allomorph is interesting: it occurs whenever $T^0$ agrees with the same argument that Inf$^0$ agreed with. This context is represented schematically in (60), along with that of the -ehm allomorph.
Conditioning of the allomorphs of present-tense $T^0$

(a) $T^0$ $\leftrightarrow$ -ehm when $T^0$ does not agree

(b) $T^0$ $\leftrightarrow$ -w' when $T^0$ agrees with the same argument that Infl$^0$ agreed with

The $w'$-agreement pattern—that is, the pattern in which $T^0$ agrees with the same argument that Infl$^0$ agreed with—occurs in two contexts. The first context is when the sole argument of an intransitive verb is 3rd-person, as in the 3p form in (61). In such forms, the 3rd-person argument counts both as the highest-ranked argument for the person probe on Infl$^0$ (so Infl$^0$ agrees with 3p) and also as the only possible D-agreement target for the D-probe on $T^0$ (so $T^0$ agrees with 3p, creating the 3p enclitic -aki).

(61) Intransitive 3p form: Infl$^0$ and $T^0$ both agree with 3

3p  pankihšin -w' -aki
fall -PRES -3p
‘they fall’

The second $w'$-agreement context is when a transitive verb has two 3rd-person arguments (e.g. 3—4) and the lower-ranked argument is indefinite, as in (62). In such forms, Infl$^0$ agrees with the higher-ranked 3rd-person argument, and since the lower-ranked argument is indefinite and thus not a good target for $T^0$-agreement, $T^0$ agrees with the 3rd-person argument as well (as indicated by the 3p enclitic -aki).

(62) Forms with 3 and indefinite 4: Infl$^0$ and $T^0$ both agree with 3

a. 3p(—4)  wa-pam -e. -w' -aki
see -3/4OBJ -PRES -3p
‘they see someone’
To recap: the -w' allomorph of T⁰ occurs in exactly the set of forms in which the enclitic doubles the highest-ranked argument—or, in the terms of my analysis, the set of forms in which T⁰ agrees with the same argument that Iná⁰ agreed with.

The w'-agreement pattern is notable in two respects. The first is that it contravenes Chomsky’s (2000, 2001) Activity Condition (AC), which states that a nominal that has been agreed with is off-limits for further agreement. The agreement of T⁰ with a nominal that Iná⁰ has already agreed with thus violates the AC. This is not the first such case in the literature: Baker (2008, 2013) has identified a number of languages in which the AC appears not to apply, and has accordingly proposed that the AC is a parameter along which languages may vary rather than a fixed principle. The Proto-Algonquian pattern is particularly interesting, however, as there is a special form of T⁰—the -w’ allomorph—that occurs exclusively in those cases in which T⁰-agreement violates the AC. It thus cannot be the case that the AC is entirely irrelevant in Proto-Algonquian, since its violation is registered by special morphology even though it does not cause the derivation to crash. The status of the AC in Proto-Algonquian is considered further in Section 6.5 below, which examines the interaction of Iná⁰-agreement and T⁰-agreement in greater detail.

The second notable property of the w'-agreement pattern is that it is the one case in which T⁰-agreement can target an indefinite DP. Normally, only definite DPs qualify for T⁰-agreement and the clitic doubling that it triggers. This was illustrated in (57) above, in which T⁰-agreement and clitic doubling occurred in a 1p—3DP form but failed in a 1p—3IND form. However, in the w'-agreement forms only, the targeted DP may be either definite or indefinite. For example, in the 3p w'-form in (61) above, repeated in (63), the clitic-doubled 3p subject can be either definite ‘the people’ or indefinite ‘some people’.

(63) In a w'-agreement form, the clitic-doubled argument can be definite or indefinite

\[ \text{3p } \text{pankihšin [w'] -aki} \]
\[ \text{fall } \text{-INV -PRES -3p} \]
\[ \text{‘the people fall, some people fall’} \]

Why should the definiteness requirement on T⁰-agreement be relaxed only in the w'-forms—that is, only in those cases in which T⁰ agrees with the target of Infl⁰? I will not offer a firm
answer to this question, but considering that $T^0$ and $\text{Infl}^0$ are adjacent heads, I speculate that $\text{Infl}^0$-agreement causes the features of the target of $\text{Infl}^0$ to become more accessible to $T^0$ in some way, which apparently makes it possible for $T^0$ to agree with that argument for [D] rather than for [D, Def] as would otherwise be required.

6.4.3.3 The -w and -en(e∙) allomorphs of $T$

The -w and -en(e∙) allomorphs of $T^0$ are effectively the complement of the -w’ allomorph: they occur when $T^0$ agrees with an argument that $\text{Infl}^0$ did not agree with. This context is represented schematically in (64), along with the contexts for -ehm and -w’:

(64) Conditioning of the allomorphs of present-tense $T^0$

a. $T^0 \leftrightarrow -ehm$ when $T^0$ does not agree

\[
\begin{array}{ccc}
T^0 & \text{Infl}^0 & \text{(argument)} \\
\left[ \begin{array}{c} uD \\ u\text{Def} \end{array} \right] & \left[ \begin{array}{c} u\text{Pers} \\ u\text{Prox} \end{array} \right] & \cdot
\end{array}
\]

b. $T^0 \leftrightarrow -w'$ when $T^0$ agrees with the same argument as $\text{Infl}^0$

\[
\begin{array}{ccc}
T^0 & \text{Infl}^0 & \text{(argument)} \\
\left[ \begin{array}{c} uD \\ u\text{Def} \end{array} \right] & \left[ \begin{array}{c} u\text{Pers} \\ u\text{Prox} \end{array} \right] & \cdot
\end{array}
\]

c. $T^0 \leftrightarrow -w$ or -en(e∙) when $T^0$ agrees with a different argument than $\text{Infl}^0$

\[
\begin{array}{ccc}
T^0 & \text{Infl}^0 & \text{(argument)} \\
\left[ \begin{array}{c} uD \\ u\text{Def} \end{array} \right] & \left[ \begin{array}{c} u\text{Pers} \\ u\text{Prox} \end{array} \right] & \cdot
\end{array}
\]

Within the general context in (64c), the selection of either the -w or the -en(e∙) allomorph is conditioned by animacy and syntactic position. The -w allomorph appears when $T^0$ agrees with a lower-ranked argument that is definite and animate, as in the examples in (65). In such forms, $\text{Infl}^0$ agrees with the higher-ranked argument and $T^0$ agrees with the lower-ranked argument. For example, in the 1p—3pDef form in (65a), $\text{Infl}^0$ agrees with 1p (as indicated by the 1p inner suffix -ena-n) while $T^0$ agrees with 3pDef (as indicated by the 3p enclitic -aki).
(65) Forms with -\textit{w} allomorph of T\textsuperscript{0}

\begin{itemize}
  \item[a.] 1p—3p\textsubscript{Def}  \textit{ne- wa-pam -a-} \underline{-w} -\textit{ena-n} \underline{-aki}
  \begin{tabular}{llllll}
    1- & see & -3/4OBJ & PREP & -1p & -3p
  \end{tabular}
  \textquoteleft we see them\textquoteright
  (Infl\textsuperscript{0} agrees with 1p; T\textsuperscript{0} agrees with 3p\textsubscript{Def})

  \item[b.] 3p\textsubscript{Def}—1p  \textit{ne- wa-pam -ekw -w} -\textit{ena-n} \underline{-aki}
  \begin{tabular}{llllll}
   1- & see & -INV & PREP & -1p & -3p
  \end{tabular}
  \textquoteleft they see us\textquoteright
  (Infl\textsuperscript{0} agrees with 1p; T\textsuperscript{0} agrees with 3p\textsubscript{Def})

  \item[c.] 3p—4p\textsubscript{Def}  \textit{we- wa-pam -a-} \underline{-w} -\textit{wa-w} \underline{-ahi}
  \begin{tabular}{llllll}
    3- & see & -3/4OBJ & PREP & -3p & -4p
  \end{tabular}
  \textquoteleft they see the others\textquoteright
  (Infl\textsuperscript{0} agrees with 3p; T\textsuperscript{0} agrees with 4p\textsubscript{Def})

  \item[d.] 4p\textsubscript{Def}—3p  \textit{we- wa-pam -ekw -w} -\textit{wa-w} \underline{-ahi}
  \begin{tabular}{llllll}
    3- & see & -INV & PREP & -3p & -4p
  \end{tabular}
  \textquoteleft the others see them\textquoteright
  (Infl\textsuperscript{0} agrees with 3p; T\textsuperscript{0} agrees with 4p\textsubscript{Def})
\end{itemize}

The -\textit{en(e\textcdot)} allomorph occurs in two environments. The first is when the lower-ranked argument is definite and \textit{inanimate}, as in the examples in (66). For example, in the 1p—0p\textsubscript{Def} form in (66a), Infl\textsuperscript{0} agrees with 1p (as indicated by the 1p inner suffix -\textit{na-n}) while T\textsuperscript{0} agrees with 0p\textsubscript{Def} (as indicated by the 0p enclitic -\textit{ari}).

(66) Forms with -\textit{en(e\textcdot)} allomorph of T\textsuperscript{0}: inanimate lower-ranked argument

\begin{itemize}
  \item[a.] 1p—0p\textsubscript{Def}  \textit{ne- wa-pant -a-} \underline{-ne\textcdot} -\textit{na-n} \underline{-ari}
  \begin{tabular}{llllll}
    1- & see & -OBJ & PREP & -1p & -0p
  \end{tabular}
  \textquoteleft we see the things\textquoteright
  (Infl\textsuperscript{0} agrees with 1p; T\textsuperscript{0} agrees with 0p\textsubscript{Def})

  \item[b.] 0p\textsubscript{Def}—1p  \textit{ne- wa-pam -ekw -ene\textcdot} -\textit{na-n} \underline{-ari}
  \begin{tabular}{llllll}
    1- & see & -INV & PREP & -1p & -0p
  \end{tabular}
  \textquoteleft the things see us\textquoteright
  (Infl\textsuperscript{0} agrees with 1p; T\textsuperscript{0} agrees with 0p\textsubscript{Def})
\end{itemize}

The second environment for -\textit{en(e\textcdot)} is when T\textsuperscript{0} agrees with a definite \textit{secondary object}, which may be animate or inanimate (Goddard 2007:264). The class of secondary objects, as dis-
cussed in Chapter 4, consists of the themes of “pseudo-transitive” AI+O verbs (§4.6.4) and ditransitive TA+O verbs (§4.6.5). Examples are given in (67). In both forms, T⁰ agrees with the definite secondary object and the -en(e⁺) allomorph of T⁰ occurs. (The secondary object is inanimate in these examples, but animate secondary objects are possible as well.)

(67) Forms with -en(e⁺) allomorph of T⁰: secondary object

a. AI+O 2p—0s  
   ke-  kemo- [eme⁺] -wa-w  [-i]  
   2- steal  -pres  -2p  -0s  
   'you (pl.) steal [-i]'  
   (Inf⁰ agrees with 2p; T⁰ agrees with 0sDef secondary object)

b. TA+O 1s—2p—0s  
   ke-  wi-ntamaw  -eθ  [eme⁺] -wa-w  [-i]  
   2- name  -2obj  -pres  -2p  -0s  
   'I name [-i] for you (pl.)'  
   (Inf⁰ agrees with 1s and 2p; T⁰ agrees with 0sDef secondary object)

I proposed in Chapter 4 that both types of secondary objects remain in their base position within the vP. In contrast, a primary object—that is, the object of a TA or TI verb—moves to the outer specifier of Spec-VoiceP, a position in which it is equidistant with the subject and can participate in the direct-inverse system. This analysis is summarized in (68).

(68) Analysis of primary and secondary objects (§4.6.4–4.6.5)

a. PRIMARY OBJECT
   moves to Spec-VoiceP

   VoiceP
   OBJ
   SUBJ
   Voice
   vP
   OBJ
   Root

   b. SECONDARY OBJECT
   remains in Spec-vP

   VoiceP
   SUBJ
   Voice
   vP
   OBJ
   Root

This analysis gives us a relatively clear way to express the conditioning of the -w and -en(e⁺) allomorphs of T⁰. The -w allomorph, illustrated in (65) above, occurs when the enclitic doubles either an animate subject or an animate primary object. Since, as shown in (68a), subjects and primary objects are both specifiers of VoiceP, we can say that -w occurs when T⁰ agrees with (and triggers clitic doubling of) an animate specifier of VoiceP. In contrast, -en(e⁺) oc-
curs in two environments: (1) when the enclitic doubles either an inanimate subject or an inanimate primary object (i.e. when $T^0$ agrees with an inanimate specifier of VoiceP), and (2) when the enclitic doubles any secondary object (i.e. when $T^0$ agrees with a specifier of vP).

We can now update the spell-out rule for $T^0$ to include all four allomorphs of $T^0_{\text{Pres}}$:

(69) Spell-out of $T^0$ in the independent order (updated from (59))

\[
T^0_{\text{Pres}} \leftrightarrow -w' / [D], \text{AC overridden} \\
\leftrightarrow -w / [D], \text{animate Spec-VoiceP} \\
\leftrightarrow -en(e\cdot) / [D] \text{ (elsewhere: inanimate Spec-VoiceP; any Spec-vP)} \\
\leftrightarrow -ehm \text{ elsewhere}
\]

This rule is admittedly informal, and I must leave a more rigorous treatment to future work. Nevertheless, two conclusions seem clear: first, the connection between $T^0$ and the enclitic is systematic, and second, the connection can be modelled as an effect of D-agreement, albeit with rather subtle conditioning.

Before concluding the discussion of the allomorphs of $T^0$, it is worth considering one particularly interesting set of en(e\cdot)-agreement forms: the objective TA+O you-and-me forms. These forms help to clarify the role of $T^0$-agreement in the grammar. In particular, they show that $T^0$-agreement does not serve to license the definite DP that is agreed with. To see how this is the case, consider first the 1p—2 you-and-me form in (70). Recall that in such you-and-me forms, the Infl/Person agreement system exceptionally indexes both arguments (§6.3.1.2). Here, the prefix indexes the 2s/p object and the inner suffix indexes the 1p subject.

(70) 1p—2 ke- wa-pam -eθ -ehm -ena.
2- see -2OBJ -PRES -1p
‘we see you’

The indexing of both arguments by the Infl/Person agreement system opens up an interesting possibility: since the T/D agreement system has not yet been engaged, it is, in principle, available to index a third argument. This possibility is realized in ditransitive TA+O forms: when the agent and goal are both 1st/2nd person, a definite 3rd-person theme can exceptionally be indexed by the enclitic. In (71), for example, the prefix indexes the 2s/p goal, the inner suffix indexes the 1p subject, and the enclitic indexes the 0s theme. Such forms are the only case in Proto-Algonquian in which the verb inflection indexes three arguments.
The possibility of agreeing with three arguments arises only in you-and-me forms, as these are the only independent-order forms in which the Infl/Person agreement system agrees with both the agent and the goal, thus leaving the T/D system open for agreement with the theme. In a non-you-and-me form (e.g. the 1p—3s—0s form ‘we name it for him/her’ in (72)), the standard pattern returns: the 1p agent is indexed by the Infl/Person agreement system, the 3s goal is indexed by the T/D system, and the 0s theme is not indexed by the verb inflection.

It is instructive to compare the agreement relations in the two forms above, which are represented schematically in (73). Both forms contain a definite theme DP. In the you-and-me form in (73a), $T^0$ agrees with the theme DP. Given the licensing role that agreement often plays, we might think that the $T^0$-agreement in this form serves to license the theme DP. However, in the non-you-and-me form in (73b), $T^0$ instead agrees with the 3rd-person goal, and the definite theme DP goes without agreement entirely.

Since the theme DP in the non-you-and-me form in (73b) is evidently licensed despite the absence of $T^0$-agreement, we cannot claim that the occurrence of $T^0$-agreement with the theme DP in the you-and-me form in (73a) is motivated by licensing. Instead, $T^0$-agreement seems to be opportunistic: a DP will undergo $T^0$-agreement if such agreement is available, but there are no adverse consequences if the DP is left without agreement.
From a diachronic perspective, the “opportunism” of $T^0$-agreement is unsurprising, as the T/D agreement system was layered atop the existing verb inflection when the independent order was innovated. If the Infl/Person system was sufficient for licensing in the original conjunct-order inflection, presumably it would continue to be sufficient in the independent order, thus leaving the T/D system as a non-essential add-on. This conclusion is theoretically significant, as it shows that probe-goal agreement is not necessarily tied to licensing. It is possible for probe-goal agreement to take place even when its occurrence is essential for neither the probe nor the goal, as is the case for Proto-Algonquian T/D agreement.

6.4.4 Summary: The T/D agreement system

This section has examined the T/D agreement system of Proto-Algonquian, which exists only in the independent order. The system is anchored by the functional head $T^0$ (the “formative”), which bears a $[uD, uDefinite]$ probe. The allomorphs of $T^0$ are conditioned by properties of the DP targeted by the probe. The other component of the T/D agreement system is the enclitic (or “outer suffix”), which is created through clitic doubling of the DP targeted by the probe. Diachronically, the sensitivity of the T/D system to definiteness reflects the nominal origins of the enclitic, which functioned as a nominal definite article in Pre-Proto-Algonquian. (The enclitic thus belonged to the category D in both its nominal and verbal uses.) In its innovative verbal use, the enclitic shifted from marking definiteness (interpretable $[D, Def]$) to agreeing with definiteness (uninterpretable $[uD, uDef]$).

While many details of the analysis remain to be worked out, the basic properties of the T/D agreement system are clear, and they raise two points of theoretical interest. The first point is that Proto-Algonquian allows Chomsky’s Activity Condition (AC) to be violated—but, interestingly, these violations are registered by special morphology, which indicates that the AC is still exerting some kind of influence on the grammar. The second point is that $T^0$-agreement in Proto-Algonquian is not connected to licensing, as it can fail to occur without causing adverse consequences for either the probe or the goal.

It is also worth noting an interesting parallel between the T/D agreement system in PA and the marking of tense and agreement in English. In both languages, $T^0$ has agreement-marking allomorphs in the present but not in the past, as shown in (74).
Forms of $T^0$ in English and PA

<table>
<thead>
<tr>
<th></th>
<th>$T^0_{\text{Pres}}$</th>
<th>$T^0_{\text{Past}}$</th>
</tr>
</thead>
<tbody>
<tr>
<td>English</td>
<td>-Ø, -s (conditioned by agreement)</td>
<td>-ed (uniform)</td>
</tr>
<tr>
<td>PA</td>
<td>-ehm, -w', -w, -en(e·) (conditioned by agreement)</td>
<td>-entay (uniform)</td>
</tr>
</tbody>
</table>

In both languages, then, agreement and tense marking are in complementary distribution: $T^0$ can overtly mark one or the other but not both. This observation was made for English by Thráinsson (1996), Bobaljik (1997), and Bobaljik and Thráinsson (1998), who attribute the morphological complementarity to the fact that English bundles tense and agreement on the same head. Since I have made exactly the same proposal for PA—i.e., that $T^0$ both marks tense and carries a D-agreement feature—Bobaljik and Thráinsson’s explanation is applicable to PA as well. PA and English are thus completely parallel in this respect. The similarity of the two languages is obscured by the fact that PA also has other heads that carry agreement features (Voice$^0$ and Iná$^0$), but if we isolate the PA $T^0$ head alone, it behaves exactly as Bobaljik and Thráinsson predict for a head that bundles tense and agreement.

### 6.5 Interaction of the Infl/Person and T/D agreement systems

In the preceding section, we saw that the Infl/Person and T/D agreement systems sometimes interact in a way that raises interesting questions for Chomsky’s (2000, 2001) Activity Condition (AC). According to the AC, a nominal whose Case has been valued is no longer eligible for agreement. For Chomsky, the AC is an inviolable principle, but Baker (2008, 2013) proposes that it is instead a parameter: agreement is subject to the AC in some languages but not others. Baker regards this “Case Dependency of Agreement Parameter” as a macro-parameter that “governs languages as wholes” (2013:28). In this section, however, I will argue that the Proto-Algonquian data shows that the AC is instead a microparameter whose value can vary among individual functional heads.

The argument will proceed as follows. The crucial premise is that the Proto-Algonquian clause contains two probes ($\text{Infl}^0$ and $T^0$) that can both target a 3rd-person DP (henceforth $\text{DP}[3]$), as argued in the preceding sections. Intransitive forms with a single $\text{DP}[3]$ argument thus give rise to a conflict between the two probes: after the lower probe, $\text{Infl}^0$, agrees with $\text{DP}[3]$, can the higher probe, $T^0$, agree with $\text{DP}[3]$ as well? For Baker, the answer is predicted to be no if the AC applies in Algonquian (as Infl-agreement will make $\text{DP}[3]$ ineligible for T-agreement) and yes if the AC does not apply (as $\text{DP}[3]$ will remain eligible). However, the
Proto-Algonquian facts are not consistent with either of these predictions. Instead, present-tense $T^0$ agrees with DP$_3$ (violating the AC) while past-tense $T^0$ does not agree with DP$_3$ (obeying the AC), thus creating a different agreement pattern in the two tenses. Since $T_{\text{Pres}}$ can violate the AC while $T_{\text{Past}}$ cannot, sensitivity to the AC must be a property of a particular probe rather than a macroparameter that applies to the entire grammar.

The following aspects of Proto-Algonquian morphosyntax are relevant to the current argument. I have proposed that Inf$_0$ probes for $[u\text{Person}, u\text{Proximate}]$ while $T^0$ probes for $[uD, u\text{Definite}]$. For simplicity, I will abbreviate these probes as $[u\text{Person}]$ and $[uD]$ respectively. The two probes are shown in the schematic representation of the clause in (75), which omits projections that are not relevant to the present discussion.

(75) Probes in the Proto-Algonquian clause

![Diagram showing probes in the clause]

Other agreement morphology is dependent on the values of these probes: the proclitic and inner agreement suffix share the features of Inf$_0$ while the enclitic shares the features of $T^0$. Since the features of the proclitic and inner suffix are predictable from the features of Inf$_0$, I have proposed (§6.3.1.3) that these dependent morphemes are generated postsyntactically on the basis of the Case feature assigned by Inf$_0$ (cf. Bobaljik 2008), which I refer to simply as Inf$_0$-Case (cf. Pesetsky 2013). Similarly, I propose that $T^0$ assigns T-Case to its goal. The agreement relations in the Proto-Algonquian clause can now be stated as follows: the proclitic and inner suffix track the Inf$_0$-Case nominal while the enclitic tracks the T-Case nominal.

We can assess the status of the AC in Proto-Algonquian by considering the goals targeted by Inf$_0$ and $T^0$ in different contexts. The goals are indicated most clearly by the dependent agreement morphemes discussed above, which are shown in (76) for various Proto-Algonquian forms. The proclitic (PCl) and inner suffix (Agr) track the goal of Inf$_0$ while the enclitic (ECl) tracks the goal of $T^0$. (For simplicity, I omit the stem and theme sign. The PA past-tense forms are based directly upon the preterit forms of Plains Cree).
In (76a–e), the pattern is uniform: Infl\(^0\)-related morphology (the proclitic and inner suffix) agrees with the higher-ranked subject while T\(^0\)-related morphology (the enclitic) agrees with the lower-ranked object when one is present. This pattern indicates the separate agreement relations in (77) (cf. Baker 2013:26 on Nez Perce).

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\(^{14}\)For a discussion of the Plains Cree preterit and its status with respect to PA, see §6.4.1 above. If the reader is uncomfortable with my reliance upon shakily-reconstructed PA here, the analysis can equally well be applied directly to Plains Cree, as the crucial contrast in the 3p intransitive forms occurs in Plains Cree as well. The Plains Cree equivalent of the PA data in (76) is shown in (i) (from Wolfart 1973:41–3 and Pentland 1999:258).

(i)

<table>
<thead>
<tr>
<th></th>
<th>PRESENT</th>
<th>PRETERIT</th>
</tr>
</thead>
<tbody>
<tr>
<td>1p—3p</td>
<td>ni-V-na-n-ak</td>
<td>ni-V-hta-na-n-ak</td>
</tr>
<tr>
<td>2p—3p</td>
<td>ki-V-wa-w-ak</td>
<td>ki-V-hta-wa-w-ak</td>
</tr>
<tr>
<td>3p—4p</td>
<td>V-w-ak</td>
<td>o-V-hta-wa-w</td>
</tr>
<tr>
<td>1p</td>
<td>ni-V-na-n</td>
<td>ni-V-hta-n</td>
</tr>
<tr>
<td>2p</td>
<td>ki-V-na-wa-w</td>
<td>ki-V-hta-wa-w</td>
</tr>
<tr>
<td>3p</td>
<td>V-w-ak</td>
<td>o-V-hta-wa-w</td>
</tr>
</tbody>
</table>
However, in the 3rd-person intransitive forms in (76f), a conflict between the two probes arises: after Infl\(^0\) agrees with DP\([3]\), can T\(^0\) do so as well? As the morphology shows, the answer differs in the two tenses. In the present form, DP\([3]\) is indexed by the enclitic agreement associated with T\(^0\), which indicates that T\(^0\)\(_\text{Pres}\) does agree with DP\([3]\), overriding the previously-assigned Infl-Case (as schematized in (78a)). (In the preceding section, I showed that special form of T\(^0\) here, -w', occurs only in such override contexts and can thus be regarded as an overt “AC override” marker.) In the past form, however, DP\([3]\) is instead indexed by the usual Infl-agreement and no enclitic appears, which indicates that T\(^0\)\(_\text{Past}\) does not override Infl-Case (as schematized in (78b)).

(78) Agreement relations in 3rd-person intransitive forms (Infl\(^0\) and T\(^0\) compete for DP\([3]\))

a. **PRESENT TENSE**: T\(^0\) overrides Infl\(^0\); 3p indexed by T\(^0\)-agreement (*AC violated*)

b. **PAST TENSE**: T\(^0\) does not override Infl\(^0\); 3p indexed by Infl\(^0\)-agreement (*AC obeyed*)

In summary: present-tense T\(^0\) can violate the AC and “steal” the goal of Infl\(^0\), thus causing present-tense intransitive DP\([3]\) subjects to be tracked by T\(^0\)-agreement (like transitive objects). A special “AC override” form of T\(^0\) (-w’) occurs in this context. Past-tense T\(^0\), on the other hand, *cannot* violate the AC, thus leaving past-tense intransitive DP\([3]\) subjects to be tracked by Infl\(^0\)-agreement (like transitive subjects). Since the applicability of the AC
in Proto-Algonquian depends on the choice of $T^0$, the Proto-Algonquian data indicates that sensitivity to the AC must be a property of *individual probes* rather than of the grammar as a whole. In other words, the AC is yet another microparameter of agreement rather than a macroparameter (or a principle).

### 6.6 Summary: Analysis of other agreement morphology

This chapter has examined the Algonquian agreement morphology that lies beyond the theme signs in Voice$^0$ and Infl$^0$. I have proposed that the various agreement markers fall into two AGREEMENT SYSTEMS, which consist of a probe plus up to two dependent morphemes that share the probe’s phi-features:

- **The Infl/Person system** is anchored by the Person probe on Infl$^0$; it also includes the (inner) agreement suffix in both the conjunct and the independent orders, as well as the person proclitic in the independent. The dependent morphemes always agree with the same argument that Infl$^0$ does. In cases in which Infl$^0$ agrees with both arguments (as determined independently by the behaviour of the theme sign system), the dependent morphemes exhibit a portmanteau agreement pattern.

- **The T/D system**, which exists only in the independent order, is anchored by the D probe on $T^0$ (the “formative”) and also includes the enclitic (i.e. the outer suffix). The enclitic is generated in Spec-TP as a clitic double of the argument targeted by $T^0$. Diachronically, the existence of the T/D system in the independent order is a result of the nominal origins of the independent inflection: in its “original home” on the noun, the formative was a nominalizer and the outer suffix was a definite article.

The agreement-system approach helps us to make sense of the surface complexity of the Algonquian verb, as it reduces five agreement morphemes to two agreement systems, giving us a picture that, in the end, is rather simple.

From a theoretical perspective, a particularly significant aspect of the agreement systems of Proto-Algonquian is their interaction. In a sense, the addition of the T/D agreement system in the innovative independent-order inflection serves as a sort of morphosyntactic experiment: it gives us an opportunity to observe the effects of adding a second probe (on $T^0$) to a clause in which an established agreement system already exists (i.e. the Infl/Person system, which was already present in the more arcahic conjunct order). The results of this experiment are interesting. The existence of two agreement systems gives rise to contexts in which
the two systems compete for a single 3rd-person argument, and, as we have seen, the winning system differs depending on the tense: in the present tense, the 3rd-person argument is indexed by the T/D system, while in the past tense, it is indexed by the Infl/Person system. I have argued that this variation can be understood in terms of a parameterized Activity Condition (AC): present-tense $T^0$ can override the AC but past-tense $T^0$ cannot.
Connections

This chapter reviews the proposals made in this thesis and connects them to the broader theoretical and empirical context. Section 7.1 summarizes the proposed analysis of Proto-Algonquian agreement. Section 7.2 then considers the implications of this analysis for several current issues in morphosyntactic theory. Finally, in order to lay the groundwork for tracing the analysis forward from Proto-Algonquian to the daughter languages, Section 7.3 identifies a variety of changes in the patterning of agreement in the daughter languages and considers these changes in light of the proposed analysis of Proto-Algonquian.

7.1 Summary of analysis

This section gives an overall summary of the analysis developed in this thesis. The section begins by walking through the derivation of a Transitive Animate verb form (§7.1.1). Four potentially controversial aspects of the analysis are then considered (§7.1.2), followed by two important advantages (§7.1.3).

7.1.1 The derivation of a Transitive Animate verb form

The complex agreement system of the Proto-Algonquian Transitive Animate verb involves up to five separate morphemes: prefix, theme sign, formative, inner suffix, and outer suffix. Taking the theme sign as the core of the system, I have proposed that the direct-inverse agreement pattern arises from the interaction of two person agreement probes: a lower probe on Voice$^0$ that always agrees with the object and a higher probe on Infl$^0$ that agrees with whichever argument is a better match for its features (or with both arguments if their features are equivalent). The inverse theme sign is spelled out when both probes agree only with the object; otherwise, the theme sign is simply a marker of object person agreement, as proposed by Brittain (1999b). In addition to the person probes on Voice$^0$ and Infl$^0$, the independent-
order verb involves a third probe, on T⁰ (the “formative”), which is sensitive to D-features rather than person features—a reflection of the nominal origins of the independent-order inflection. The alignment of the remaining agreement markers follows from the phi-features targeted by the probes: the prefix and inner suffix track the goal(s) of Infl⁰, with portmanteau agreement predictably occurring when Infl⁰ agrees with both arguments, while the outer suffix tracks the goal of T⁰. This analysis is sketched in (1) through (6) for an independent-order Transitive Animate verb.

(1) **Probe on Voice⁰**

The [uPerson] probe on Voice⁰ agrees with the object for person. The [EPP] feature then triggers movement of the object to Spec-VoiceP, which makes the object and the subject equidistant for the purposes of subsequent agreement operations. (It is unimportant whether the object occupies the inner or outer specifier of VoiceP.)

(2) **Probe on Infl⁰**

Since the subject and object are now equidistant, the [uPerson, uProximate] probe on Infl⁰ agrees with whichever argument is the better match for its features. This “equal opportunity” agreement is what gives rise to the direct-inverse pattern.

a. **You-and-me forms: both arguments 1st/2nd person.** Since the two equidistant arguments are an equally good match for the probe, Infl⁰ agrees with both.

b. **Non local forms: both arguments 3rd person (3 and 4).** Proximate 3 ([Pers, Prox]) is a better match for the probe than obviative 4 ([Pers]).
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c. **Mixed forms: one argument 1st/2nd, the other 3rd.** I have proposed that in Proto-
Algonquian, 1st/2nd persons are \([\text{PersP pro}]\) while 3rd persons are \([\text{DP } \text{PersP pro}]\). Locality thus favours \(u\text{Pers}\) agreement with the 1st/2nd-person PersP, since the PersP of the 3rd-person argument is separated from the probe by additional structure (the DP layer).

(3) **EPP-driven movement to Spec-InflP**

In some of the languages, Infl\(^0\) may also bear an \([\text{EPP}]\) feature that triggers movement of its goal to Spec-InflP. Since the goal of Infl\(^0\) is the subject in a direct form and the object in an inverse form (a grammatical function known by Algonquianists as the “central participant”), this movement accounts for the syntactic prominence of inverse objects in languages such as Passamaquoddy (§2.4.1, §4.3).

(4) **Spell-out of theme signs**

a. If Infl\(^0\) and Voice\(^0\) have identical person features—that is, if they have both agreed with the same argument, which must necessarily be the object, since Voice\(^0\) only ever agrees with the object—Infl\(^0\) is spelled out as -ekw (the inverse theme sign).

b. Otherwise Voice\(^0\) is spelled out as object agreement (theme signs -a·3/4, -eθ 2, -i 1).

(5) **Probe on T\(^0\)**

The \([u\text{D, Definite}]\) probe on T\(^0\) agrees with a matching goal if one is available. The ability of T\(^0\) to override the Activity Condition and agree with the goal of Infl\(^0\) depends on the value of the tense feature of T\(^0\) (§6.5). For reasons that are not yet clear, agreement with a non-[Definite] goal is possible only in such override contexts (§6.4.3.2).

(6) **Spell-out of dependent agreement**

a. The prefix and inner suffix index the goal of Infl\(^0\). In descriptive terms, this is equivalent to saying that the prefix and inner suffix index the higher-ranked argument on the Person Hierarchy, but the effects of this hierarchy are derived by the agreement operation in (2) and the spell-out rule in (4), so a hierarchy need not be posited. In contexts where Infl\(^0\) agrees with both arguments, a portmanteau-like pattern in which the dependent agreement indexes both arguments is possible (§6.3.2.2).

b. The outer suffix indexes the goal of T\(^0\).

Although it is necessarily complex, the analysis is straightforward and relies almost entirely on standard probe-goal phi-feature agreement and morphological spell-out rules conditioned
by person features. The analysis de-exotifies the direct-inverse system, which is shown to involve nothing more than person agreement, as also proposed by Bejar and Rezac (2009) and Lochbihler (2012) (but see §3.6 and §5.3.5 for some limitations of these previous analyses). Under the analysis that I have proposed, the direct-inverse pattern arises for a simple reason: full-fledged person agreement on Voice\(^0\) creates a structure in which the object and subject are equidistant specifiers of VoiceP. This equidistance allows Infl\(^0\) to agree with *either argument* rather than being bound by locality to agree only with the subject. The ability of Infl\(^0\) to agree with either argument gives rise to the pattern that, on the surface, can be described as a direct-inverse alignment system. Ultimately, then, the direct-inverse system results from the presence of rich object person agreement on Voice\(^0\) (which is realized overtly as the object-agreement theme signs), as it is this agreement that gives the object a syntactic prominence equivalent to that of the subject with respect to all subsequent syntactic operations.

### 7.1.2 Potentially controversial proposals

While I have attempted to keep the analysis in line with mainstream theoretical models, it has been necessary to make four proposals that may be controversial. These proposals thus deserve close scrutiny in order to determine whether their adoption is warranted.

1. **Proliferation of probes.** I have proposed that the Proto-Algonquian clause can contain up to three phi-probes: a flat [uPers] probe on Voice\(^0\), an articulated [uPers, uProx] probe on Infl\(^0\), and a [uD, uDef] probe on T\(^0\) in the independent order. While this is admittedly a heavy complement of probes, we are forced to posit three distinct probes because the independent-order verb displays three distinct agreement systems: (1) the Voice\(^0\) system, which consists of Voice\(^0\) alone and always agrees with the object; (2) the Infl\(^0\) system, which consists of Infl\(^0\), the prefix, and the inner suffix and can agree with either the object or the subject; and (3) the T\(^0\) system, which consists of the “formative” T\(^0\) and the outer suffix and agrees with 3rd-person arguments only. Each agreement system is distinct and the agreement systems interact in ways that require each system to be represented in the narrow syntax.

2. **Complementary spell-out of Voice\(^0\) and Infl\(^0\).** In order to explain the morphology of the inverse theme sign, I have proposed that the theme signs are in fact a heterogeneous class, with the inverse theme sign -ekw as Infl\(^0\) and the remaining object-agreement theme signs as Voice\(^0\). There is ample evidence for this distinction, including the diminutive morpheme-order pattern in Plains Cree (§2.6.2) and the co-occurrence of two apparent theme signs together in the conjunct unspeciﬁed-actor forms (§5.5). In all other forms, however, only one of Infl\(^0\) or Voice\(^0\) is ever spelled out, so the spell-out of Infl\(^0\) and Voice\(^0\) is usually com-
plementary. While such complementarity could justly be regarded with scepticism as a morphological trick, I have shown that in this case, there is strong evidence that complementary spell-out is indeed a genuine property of the morphology, as we can observe its origins in a phonologically-conditioned alternation in the spell-out of theme signs that existed in the conjunct order (§2.6.3). There is thus adequate justification for positing complementary spell-out of Infl$^0$ and Voice$^0$. Regardless of the justification, however, I must acknowledge that the alpha rule I have posited to capture this complementarity (Infl$^0$[αPers] ←→ -ekw / Voice$^0$[αPers]) is perhaps an undesirably powerful formalism, and we might wonder whether there is a way to derive the same result using more standard mechanisms.

3. **Equidistance of multiple specifiers.** My analysis crucially assumes that multiple specifiers are equidistant for the purposes of subsequent syntactic operations, following Ura (1996), Chomsky (2000), and Hornstein (2009:43–44) but contra Chomsky (2001) and Hiraiwa (2001). The theoretical consequences of this assumption are discussed further in §7.2.2 below. With regard to the analysis developed in this thesis, equidistance is essential, as it allows us to capture the equal eligibility of the subject and object for Infl$^0$-agreement without contravening well-established locality constraints.

4. **The Feature Locality Hypothesis (§5.6).** I have proposed that the non-application of c-command-based locality in multiple specifier structures allows a more subtle locality constraint to emerge: if two XPs are equidistant from a probe with respect to c-command, locality will favour agreement with the XP in which the targeted feature is less deeply embedded. For example, assume that the two phrases in (7) are specifiers of the same head and are thus equidistant from higher heads with respect to c-command. With respect to a higher [nY] probe, however, Feature Locality states that the two phrases are not equivalent: since less structure intervenes between the probe and Y in (7b) than in (7a), Feature Locality requires agreement with (7b) only.

(7) a. XP b. YP
   \[ X \quad YP \quad Y \quad ZP \]

Of all the theoretical proposals in this thesis, Feature Locality has perhaps the fewest antecedents in the existing literature, and I must leave a full cross-linguistic investigation of this hypothesis to future work. A likely reason for the obscurity of Feature Locality is that it arises only in multiple specifier configurations, since these are the only configurations in
which the coarser c-command condition on locality does not apply, thereby clearing the way for subtler locality effects to emerge. In fact, the effect may be limited to only the subset of multiple specifier configurations created by A-movement, if we follow Richards’ (2001:102) suggestion that A-specifiers are equidistant while A-bar specifiers are not. The number of cases in which the configuration required in order for Feature Locality effects to emerge is thus quite small, so perhaps it is not surprising that the effects of Feature Locality have not yet been widely observed.

7.1.3 Advantages of the analysis

Beyond the simple agreement-based account of the direct-inverse system, the analysis proposed in this thesis has two other significant empirical advantages: it straightforwardly accounts for the relationship between the conjunct and independent orders and it derives the idiosyncratic patterning of the passive-like unspecified-actor forms.

Conjunct and independent orders. The analysis in this thesis captures the relationship between the conjunct and independent orders in a simple and intuitive way. It was shown in Chapter 2 that the patterning of the Proto-Algonquian direct-inverse system differs between the more archaic conjunct order and the more innovative independent order: more contexts count as inverse in the independent than in the conjunct (§2.5.2.2). As a first step towards understanding this difference, I proposed in Chapter 4 that conjunct Infl0 probes for [uPers, uProx] while independent Infl0 probes for [uPers, uProx, uPart]. Since the person probe on Infl0 is more articulated and thus “pickier” in the independent than in the conjunct, it follows that Infl0 agrees solely with the object in the independent more often than it does in the conjunct, thus explaining the broader distribution of inverse marking in the independent. A disadvantage of this analysis, however, is that it leaves the conjunct inanimate-actor forms unaccounted for (§4.6.2.2). This deficiency was remedied with the development of the Feature Locality Hypothesis in Chapter 5, which enabled a revised account in which the person probe on Infl0 is uniformly [uPers, uProx], but in the conjunct order, Infl0 also carries a [uD] probe. The featural makeup of the two versions of Infl0 is compared in (8).

(8) Probes on Infl0

<table>
<thead>
<tr>
<th align="left">a. Conjunct order (archaic)</th>
<th>b. Independent order (innovative)</th>
</tr>
</thead>
<tbody>
<tr>
<td align="left">Infl</td>
<td>Infl</td>
</tr>
<tr>
<td align="left">[uD]</td>
<td>[uPers]</td>
</tr>
<tr>
<td align="left">[uPers]</td>
<td>[uProx]</td>
</tr>
<tr>
<td align="left"></td>
<td>[uPers]</td>
</tr>
<tr>
<td align="left"></td>
<td>[uProx]</td>
</tr>
</tbody>
</table>
This revised analysis accounts for the patterning of theme signs in the full range of conjunct and independent forms. In contrast to existing analyses, which either ignore the conjunct (e.g. Bejar and Rezac 2009) or posit an entirely different set of rules to account for it (e.g. Lochbihler 2012), the analysis in this thesis employs exactly the same spell-out rules for both the independent and the conjunct, with the only difference between the two orders being the presence or absence of [uD] on Infl⁰ (§5.7). This view of the contrast between the independent and conjunct orders also enables an intuitive account of their diachronic relationship. Recall that the independent order gained a [uD] probe on T⁰ through the addition of noun inflection (§6.4.1). The relationship between the conjunct and the independent can thus be seen as one of unbundling: the person and D-probes are bundled on the same head in the conjunct but are split across separate heads in the independent, as shown in (9). This unbundling account accords well with the observation that the conjunct agreement is more fusional while the independent agreement is more agglutinative (§1.2.2).

(9) Unbundling of probes in the independent order

- Conjunct order (archaic)
  - Infl
    - [uD]
    - [uPers]
    - [uProx]

- Independent order (innovative)
  - TP
    - T
      - Infl
      - [uD]
    - [uPers]
    - [uProx]

The analysis in (9) is reminiscent of proposals by Giorgi and Pianesi (1997) and Bobaljik and Thráinsson (1998) that variation is possible in whether or not tense and agreement occupy separate projections. The structure for the independent order in (9b) identifies a further kind of variation along these lines: not only can tense (T⁰) and agreement (Infl⁰) be projected separately, but in fact both heads can carry agreement features. For the agreement head (Infl⁰), carrying person-agreement features is its sole function, whereas the tense head (T⁰) has interpretable semantic content and carries D-agreement features as a secondary function.

**Unspecified-actor forms.** Chapter 5 showed that the passive-like unspecified-actor form patterns idiosyncratically in both orders. In the conjunct, the unspecified-actor form contains what appears to be two theme signs simultaneously: a familiar object-agreement theme sign followed by a special -en marker. This double-theme-sign construction is readily handled by the proposed “two-headed” analysis of theme signs: the object-agreement theme signs are
in Voice\(^0\), just as they are in a normal active form, while the special -en marker is in Infl\(^0\), the usual position of the inverse theme sign -ekw. The analysis is thus easily amended to account for these forms: we need only add the special -en marker as a spell-out of Infl\(^0\) that occurs in the presence of the passive-like flavour of Voice\(^0\) (§5.5). Without the “two-headed” analysis of theme signs, the structural position of the -en marker would not be obvious.

In the independent order, the unspecified-actor form patterns completely differently: instead of the dedicated -en marker, the familiar direct and inverse theme signs -a∙ and -ekw occur. However, there is a surprising twist: while forms with 1st/2nd-person patients (the equivalent of ‘I am seen’ and ‘you are seen’) are predictably marked with the inverse theme sign -ekw, forms with 3rd-person patients (the equivalent of ‘s/he is seen’) are instead marked with the direct theme sign -a∙. The traditional description captures this puzzling pattern by arbitrarily ranking the unspecified actor (X) between 1st/2nd-persons and 3rd-persons on the Person Hierarchy (i.e. 1/2 > X > 3 > 4), an approach echoed by Lochbihler’s (2012) insertion of an “[X]” feature into the articulated representation of person features between the [1/2] and [3] features (§5.3.5). Under the analysis proposed here, however, no such arbitrary ranking of X is required. If we assume that the unspecified actor is syntactically represented as a bare PersP—a representation that follows from its status as animate (hence bearing Person) and non-referential (hence lacking a DP layer)—then the puzzling direct-inverse pattern follows directly from exactly the same analysis of the direct-inverse system that accounts for normal active forms (§5.6).

In addition to accounting for the conjunct and independent unspecified-actor forms on their own, the proposed analysis also straightforwardly explains their diachronic relationship: the independent-order pattern follows automatically if the special -en spell-out of Infl\(^0\) is removed from the spell-out rule (§5.6) and the more general direct-inverse rules begin to operate in its place. All we need to say, then, is that the independent order simplified the spell-out rules by removing anything that was dedicated to the unspecified-actor form. The innovative patterning of the independent-order unspecified-actor form then falls out. This simple account of the two distinct unspecified-actor forms and their diachronic relationship is a significant advantage of the proposed analysis.

### 7.2 Connections to morphosyntactic theory

This section situates the proposed analysis of Proto-Algonquian agreement with respect to a variety of broader issues in the theoretical literature. The main goal of the section is to
establish that the Algonquian facts should be taken into account in research on these issues. The following topics are addressed: microparameters of agreement (§7.2.1), equidistance of multiple specifiers (§7.2.2), portmanteau agreement (§7.2.3), other mechanics of agreement (§7.2.4), the distinction between agreement and clitic doubling (§7.2.5), the distinction between index agreement and concord agreement (§7.2.6), differential object agreement (§7.2.7), split ergativity (§7.2.8), and the status of the third person (§7.2.9).

7.2.1 Microparameters of agreement

The central theoretical goal of the thesis was to use the synchronic and diachronic complexity of Algonquian agreement to shed light upon the microparameters along which agreement systems can vary. A number of such microparameters have been identified. While many of these microparameters will not come as a surprise, the value of the Algonquian case study lies in the intricately detailed data and the potential to pursue comparative research on these microparameters across the Algonquian family.

1. **Identity of probing feature.** Voice⁰ and Infl⁰ probe for person features while T⁰ probes for D-features. This distinction can be significant if not all nominals contain both PersP and DP layers, as I have proposed for Proto-Algonquian.

2. **Articulation of probing feature (Bejar and Rezac 2009).** Voice⁰ carries a flat [uPers] probe while Infl⁰ carries an articulated [uPers, uProx] probe. In configurations in which more than one goal is accessible, an articulated probe like Infl⁰ can produce preferential agreement effects. An example is the Algonquian direct-inverse pattern, which always privileges a proximate DP₃ over an obviative DP₄.

3. **Presence of EPP feature.** Infl⁰-agreement appears to trigger movement of the goal of Infl⁰ in some Algonquian languages but not others (§2.4.1), a pattern that can be captured by positing intrafamily variation in the presence of [EPP] on Infl⁰ (§4.3).

4. **Representation of nominal goals.** It has been proposed that the representation of nominals can vary among languages and within a language (e.g. Déchaine and Wiltshko 2002; van Gelderen 2013). I have proposed that in Proto-Algonquian, some nominals are PersP and others are DP (§5.4.2), a difference that plays a critical role in governing the interaction of these nominals with [uPers] and [uD] probes (§5.6, §5.7, §6.4).

5. **Number of probes.** I have proposed that in Proto-Algonquian, conjunct-order clauses contain two phi-probes (on Voice⁰ and Infl⁰) while independent-order clauses contain three phi-probes (on Voice⁰, Infl⁰, and T⁰). The presence of an additional probe on T⁰ in the
independent order gives rise to a tense-based variation in the agreement pattern that does not occur in the conjunct order (§6.5).

6. Location of probes. Baker (2008, 2013) has proposed that languages with two phi-probes can vary in the location of these probes: in some languages, both probes are located on T⁰, while in other languages, one probe is located on Voice⁰ and the other is located on T⁰. Under my analysis, Proto-Algonquian is an example of the latter type of language: phi-probes are present in both the thematic domain (on Voice⁰) and the inflectional domain (on Infl⁰, and also on T⁰ in the independent order).

7. Bundling of probes. I have shown that intralanguage variation in the patterning of the direct-inverse system can be accounted for if we posit that the [uD] and [uPers] probes were bundled on a single head (Infl⁰) in the conjunct order but were split across two heads (Infl⁰ and T⁰) in the independent order (§7.1.3).

8. Syntactic or postsyntactic agreement. I have proposed that some instances of agreement take place in the narrow syntax (Voice⁰, Infl⁰, T⁰) while other instances of agreement are postsyntactic (prefix, inner suffix, outer suffix). Narrow-syntactic agreement can have effects on the syntactic derivation, such as the A-movement of inverse objects triggered by Infl-agreement (§4.3), while postsyntactic agreement cannot.

9. Sensitivity to the Activity Condition. In the independent-order inflection, the Infl⁰ and T⁰ agreement systems sometimes compete to agree with a single 3rd-person DP. The winner of this competition varies: in the present tense, T⁰ can “steal” the goal of Infl⁰, but in the past tense, it cannot. I have suggested that this pattern indicates intralanguage variation in sensitivity to the Activity Condition—in particular, that the ability to override the AC is relativized to individual functional heads (§6.5) rather than being a macroparameter as argued by Baker (2008, 2013) or a principle as implied by Chomsky (2000, 2001).

The effects of most of these microparameters can be observed within Proto-Algonquian itself. Comparative study of the daughter languages promises to reveal many additional examples that will further refine our understanding of the various ingredients of agreement systems.

7.2.2 Equidistance of multiple specifiers

multiple *A-bar specifiers* are not. Since the equidistant multiple specifier configuration in Algonquian arises due to A-movement, the Algonquian facts are consistent with Richards’ suggestion. Richards considers his suggestion to be tentative because “the number of clear cases of movement to multiple specifiers is too small to draw any definite conclusions” (p. 102). The addition of the clear Algonquian case may not be sufficient to change this fact, but its consistency with Richards’ suggestion is nevertheless encouraging.

### 7.2.3 Portmanteau agreement

The status of portmanteau person agreement is controversial: is it simply a matter of fusion (e.g. Noyer 1997) or contextual allomorphy at PF (e.g. Trommer 2007), or does it reflect true multiple agreement in the narrow syntax (e.g. Georgi 2011)? Alternatively, are both of these possibilities attested (Woolford 2012)? In Proto-Algonquian, there is strong evidence that portmanteau agreement is determined in the narrow syntax. The evidence involves a systematic correlation between portmanteau agreement and inverse marking. Note, first, that the patterning of portmanteau agreement differs in the independent and the conjunct: as shown in (10), conjunct mixed forms can display portmanteau agreement but independent mixed forms cannot (§6.3.2.2).

(10) Can portmanteau agreement occur?

<table>
<thead>
<tr>
<th></th>
<th>YOU &amp; ME</th>
<th>MIXED</th>
<th>NON-LOCAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>(1/2 &amp; 1/2)</td>
<td>yes</td>
<td>no</td>
<td>no</td>
</tr>
<tr>
<td>(1/2 &amp; 3)</td>
<td></td>
<td>yes</td>
<td>no</td>
</tr>
<tr>
<td>(3 &amp; 4)</td>
<td></td>
<td>no</td>
<td>yes</td>
</tr>
</tbody>
</table>

The patterning of the inverse theme sign differs in the independent and conjunct orders as well. As shown in (11), inverse *-ekw* is excluded from mixed contexts in the conjunct (where the object-agreement theme signs occur instead) but not in the independent (§2.5.2.2).

(11) Can the inverse theme sign *-ekw* occur?

<table>
<thead>
<tr>
<th></th>
<th>YOU &amp; ME</th>
<th>MIXED</th>
<th>NON-LOCAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>(1/2 &amp; 1/2)</td>
<td>no</td>
<td>yes</td>
<td>yes</td>
</tr>
<tr>
<td>(1/2 &amp; 3)</td>
<td>no</td>
<td>yes</td>
<td>yes</td>
</tr>
<tr>
<td>(3 &amp; 4)</td>
<td>no</td>
<td>no</td>
<td>yes</td>
</tr>
</tbody>
</table>
I have accounted for the inverse pattern in (11) by positing that in mixed contexts, Infl\(^0\) agrees with both arguments in the conjunct but not the independent (§5.7.4), as summarized in (12). Agreement with both arguments prevents the occurrence of the inverse theme sign -ekw because -ekw can only be spelled out when Infl\(^0\) agrees solely with the object.

(12) Does Infl\(^0\) agree with one argument or both arguments?

<table>
<thead>
<tr>
<th></th>
<th>YOU &amp; ME</th>
<th>MIXED</th>
<th>NON-LOCAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>(1/2 &amp; 1/2)</td>
<td>both</td>
<td>only 1/2</td>
<td>only 3</td>
</tr>
<tr>
<td>[uPers, uProx]</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(1/2 &amp; 3)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>[uPers, uProx], [uD]</td>
<td>both</td>
<td>both</td>
<td>only 3</td>
</tr>
</tbody>
</table>

Importantly, this analysis derives not only the variation in direct-inverse patterning in (11), but also the variation in portmanteau patterning in (10): the contexts for portmanteau agreement in (10) are exactly those contexts in which Infl\(^0\) agrees with both arguments in (12). The patterning of portmanteau agreement thus has the same underlying source as the patterning of the direct-inverse system: variation in the specification of the probe on Infl\(^0\) (§6.3.2.2). Since the direct-inverse system is undeniably syntactic, as shown by Bruening’s (2001) binding and crossover evidence (§2.4.1), the Infl\(^0\)-agreement operation that derives the direct-inverse system must take place in the narrow syntax. Since this agreement operation also controls the patterning of portmanteau agreement, we must conclude that the source of portmanteau agreement in Proto-Algonquian lies in the narrow syntax as well. The Proto-Algonquian data thus provides strong evidence that it is possible for portmanteau agreement to be purely syntactic, as proposed by Georgi (2011). (Compare the similar analysis of portmanteau agreement in Chukchi proposed by Bobaljik and Branigan (2006), in which T\(^0\) exhibits portmanteau agreement only when it checks the Case of multiple arguments.)

7.2.4 Other mechanics of agreement

The proposed analysis of Proto-Algonquian agreement is relevant to a variety of other theoretical proposals regarding the nature of agreement:

1. **Articulated probes.** The analysis makes crucial use of Bejar and Rezac’s (2009) proposal that a person-agreement probe need not simply be [uPerson]—it can also include sub-features such as [uParticipant].
2. Tolerance of failed agreement. The T/D-agreement system of the independent order (§6.4) is consistent with Preminger’s (2009) proposal that failure to agree can lead to the spell-out of default morphology rather than causing the derivation to crash. T\(^0\) receives the special spell-out -ehm in precisely those cases in which it fails to agree, which can be clearly diagnosed by the absence of dependent T/D agreement (§6.4.3.1).

3. Syntactic and post-syntactic agreement. The “agreement systems” of the Algonquian verb point to a model that allows for both syntactic and post-syntactic agreement. The probes themselves undergo agreement in the narrow syntax, as evidenced by the clear syntactic effects of Voice\(^0\)-agreement (which renders the object equidistant with the subject; §4.2) and Infl\(^0\)-agreement (which causes the inverse object to raise above the subject in some languages; §4.3). The dependent agreement morphemes, however, are entirely predictable from the features of the probes and can accordingly be given a postsyntactic analysis (§6.2). I thus concur with Bobaljik (2008) that it is possible for agreement to be postsyntactic, but I do not take this to hold for all agreement.

4. Agreement without licensing. It is often assumed that agreement, Case assignment, and licensing are bundled together: agreement with a DP licenses that DP by valuing its Case feature (e.g. Chomsky 2000, 2001). However, I have argued that T\(^0\)-agreement in Proto-Algonquian is not connected with licensing. The evidence comes from ditransitive forms in which the agent and goal are 1st/2nd-person and the theme is 3rd-person (§6.4.3.3). These forms are exceptional in that the Infl/Person agreement system indexes both the agent and the goal, thus leaving the T/D-agreement system unengaged. In these forms only, the “spare” T/D-agreement slot indexes the 3rd-person theme, which, in all other forms, is left completely unindexed by agreement inflection. It cannot be the case that T/D-agreement with the 3rd-person theme serves a licensing function in these exceptional forms, since in all other forms, the theme is evidently licensed even in the absence of this agreement. At least in the case of D-agreement, then, it seems possible for agreement to occur for no reason beyond the simple fact that a probe is present. In other words, agreement can occur simply for agreement’s sake rather than to satisfy any extrinsic licensing requirement.

7.2.5 Agreement, clitic doubling, and the distribution of phi-probes\(^2\)

Much recent work has argued that particular instances of object agreement are better understood as object clitic doubling (e.g. Arregi and Nevins 2008; Woolford 2008, 2010; Preminger 2009; Nevins 2011; Kramer forthcoming; cf. Bresnan and Mchombo 1987). Since

\(^2\)This section is condensed from Oxford 2014.
such work often reveals that apparent object agreement is instead clitic doubling, we may wonder whether there are any apparent cases of object agreement that truly do involve agreement. Woolford (2008) suggests that there are not, and that only subject agreement is true agreement. In other words, the clausal spine contains only a single phi-agreement probe, with any other apparent cases of agreement actually being clitic doubling instead. Nevins (2011) tentatively endorses this suggestion and notes that it “would bring a vast number of elements previously analyzed as agreement affixes into the fold as clitics” (960–61). It would also bring these elements out of the fold as agreement—a significant development, as agreement plays a central role in contemporary syntactic theory and it is thus important for us to know whether or not the many examples of apparent object agreement are relevant to agreement theory.

The existence of true object agreement is also brought into question by the work of Preminger (2009), who proposes that if it is ever possible for a given verbal phi-indexing morpheme not to appear, then that morpheme is likely to be a clitic rather than true agreement.³ Baker (2012:264, fn. 10) observes that “[i]t is an open question whether Preminger’s criterion as formulated will ever identify object marking as agreement rather than clitics”, since all languages have intransitive verbs in which, presumably, an object marker does not appear, thus preventing any object marker from being regarded as agreement. Baker (2012, 2013) rejects such a conclusion and defends the more traditional view in which multiple instances of true agreement can occur in the clausal spine, including true object agreement.

The Algonquian facts provide strong support for Baker’s position: I have argued that the Proto-Algonquian verb exhibits both object agreement (on Voice⁰; §4.2) and object clitic doubling (on the outer suffix; §6.4.2), which prevents us from explaining away Algonquian object agreement as clitic doubling. The Algonquian data thus requires a model of agreement that allows for true object agreement in addition to subject agreement.

The diachronic development of the Algonquian object markers also helps to explain why such a model is required: due to morphosyntactic change, phi-agreement probes can accumulate over time, thereby ruling out any strict grammatical limit on the number of probes. Such accumulation took place in the innovation of the independent-order inflection in Pre-Proto-Algonquian: a new T/D-agreement system was layered atop the existing Inf/Person agreement system, thus increasing the number of phi-agreement probes in the clausal spine (§6.4). In addition to cases of dramatic reanalysis such as this, probes can also accumulate through the well-known tendency for clitics to be reanalyzed as agreement (see e.g. Fuss

³Except when its failure to appear can be analyzed as null default agreement (Preminger 2009:623).
2005, as well as Oxford 2014 and §7.3.2.7 below for possible Algonquian examples). The possibility for phi-indexing morphology to accumulate in this way makes it difficult to maintain that a clause can only ever contain one instance of true agreement.

A consequence of this view is that the distribution of phi-agreement probes is essentially random: while the probe-goal mechanism itself is fixed by the grammar, phi-probes can be hosted by various clausal functional heads, with their position and featural content often resulting from nothing more than historical accident. This departure from rigid cartography likely reflects the fact that, unlike other features, phi-agreement lacks any semantic content. (Consider the difficulty of locating agreement in Cinque’s (1999) functional hierarchy.) This makes the distribution of agreement affixes an element of the grammar that is particularly susceptible to evolutionary factors rather than purely structural principles.

### 7.2.6 Distinguishing index agreement and concord agreement

Baker (2008) points out that person agreement generally appears only on heads associated with verbs, such as $T^0$ and $v^0$, while heads associated with nouns and adjectives can typically agree only for number and gender. Furthermore, Baker observes that person agreement is “fragile”: even on verbs, person agreement can fail to occur in configurations in which the verb agrees with a distant DP. In such contexts, it is often the case that verbs, like nouns and adjectives, display only number and gender agreement.

Wechsler and Zlatic (2000, 2003) and Wechsler (2011) describe these two agreement patterns using the terms INDEX AGREEMENT and CONCORD AGREEMENT. They propose that agreement targets bear two different feature bundles: an Index feature bundle attached to the referential index, which includes person, number, and gender, and a Concord feature bundle attached to the category label, which includes only number and gender. Some forms of agreement target the Index bundle while other forms target the Concord bundle. Wechsler (2011) proposes that the divergence of agreement into these two types has a diachronic origin: index agreement derives diachronically from the incorporation of pronouns, which carry person features (cf. Bresnan and Mchombo 1987) while concord agreement derives from the incorporation of noun classifiers or other non-pronominal elements, which do not carry person features.

Algonquian inflection displays both types of agreement. The prefix and inner suffix, which agree with the possessor of a noun and the higher-ranked argument of a verb, encode person and number and thus count as index agreement. The outer suffix, which marks plurality on a noun and agrees with the lower-ranked 3rd-person argument of a verb, encodes number,
animacy, and obviation, but not person, and thus counts as concord agreement.\footnote{Assuming the traditional description in which animacy and obviation are distinct from person. I have in fact proposed that this is not the case. Following Lochbihler (2012), I consider the grammatical representation of both animacy and obviation to be person-related: inanimate DPs lack a [Person] feature while obviative DPs are specified simply as [Person] rather than [Person, Proximate] (§5.4). For the purposes of the discussion in this section, however, the traditional description is sufficient.} This classification of Algonquian agreement, illustrated in (13), is not new: Goddard (1979b:29–33) drew exactly the same distinction using different terminology, labelling the agreement in (13a) as marking PRONOMINAL CATEGORY and that in (13b) as marking NOMINAL CATEGORY. The Algonquian facts thus seem quite consistent with Wechsler and Zlatic’s classification.

(13) Index and concord agreement in Proto-Algonquian

<table>
<thead>
<tr>
<th>a. INDEX AGREEMENT (includes person)</th>
<th>b. CONCORD AGREEMENT (does not include person)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prefix</td>
<td>Inner Suffix</td>
</tr>
<tr>
<td>1s</td>
<td>ne-</td>
</tr>
<tr>
<td>2s</td>
<td>ke-</td>
</tr>
<tr>
<td>3s</td>
<td>we-</td>
</tr>
<tr>
<td>1p</td>
<td>ne-</td>
</tr>
<tr>
<td>21p</td>
<td>ke-</td>
</tr>
<tr>
<td>2p</td>
<td>ke-</td>
</tr>
</tbody>
</table>

The Algonquian facts are also consistent with Wechsler’s (2011) proposal regarding the origins of the two types of agreement. Wechsler proposes that index agreement arises diachronically from the incorporation of pronouns, and comparative evidence from the wider Algic family indicates that this is true for two of the suffixes in (13a): the 1p suffix -ena-n is cognate with the Wiyot pronoun hinód ‘we, us’ and the 2p/3p suffix -wa-w is cognate with Wiyot wow, which functions to pluralize the 2nd-person pronoun khíl. It can be concluded that ena-n and wa-w were independent pronouns in Proto-Algic and were incorporated as agreement suffixes in some stage of Pre-Proto-Algonquian (Ives Goddard, p.c. in Harris and Xu 2006). As for the concord agreement in (13b), its likely origin as an encliticized article or demonstrative (Goddard 2007:265 and §6.4.2.2 above) is consistent with Wechsler’s proposal that concord agreement arises from the incorporation of non-pronominal material.
Although Wechsler and Zlatic’s index/concord distinction is applicable to Algonquian, the analysis proposed in this thesis suggests an alternative approach to understanding the nature of the distinction. Rather than positing that each nominal carries both an Index feature bundle and a Concord feature bundle and that probes target one bundle or the other, I have proposed that the difference in (13a) and (13b) reflects a difference in the featural makeup of the probe: the index agreement in (13a) appears when Infl$^0$ probes for $[uP]$ while the concord agreement in (13b) appears when T$^0$ probes for $[uD]$. Under my analysis, then, index agreement is in fact [Person] agreement while concord agreement is [D] agreement. Further pursuit of this idea must be left to future work; my point here is simply to note the possibility of this alternative approach.

### 7.2.7 Differential object agreement

In Section 6.4.2.3, I discussed the contrast between **objective** and **absolute** transitive forms, which is reconstructed for Proto-Algonquian and occurs also in Delaware, Western Abenaki, Mahican, and, to a reduced extent, Ojibwe. A canonical example of this contrast is given in (14). In the objective form in (14a), the object is definite and is indexed on the verb by both the 0$\text{OBJ}$ theme sign and the outer suffix -$i$. In the absolute form in (14b), the object is indefinite and is indexed only by the 0$\text{OBJ}$ theme sign: no outer suffix appears.

(14) Outer suffix conditioned by definiteness

\begin{align*}
\text{a. OBJECTIVE FORM: } & 1p—0s \\
& \text{definite object; outer suffix appears} \\
& ne-\text{wa-pant -a-} -ne- -na-n [i] \\
& 1-\text{see} -0\text{OBJ} -\text{PRES} -1p -0s \\
& \text{‘we see it’}
\end{align*}

\begin{align*}
\text{b. ABSOLUTE FORM: } & 1p(—0) \\
& \text{indefinite object; no outer suffix} \\
& ne-\text{wa-pant -e-} -hm -ena. [(0)] \\
& 1-\text{see} -0\text{OBJ} -\text{PRES} -1p \\
& \text{‘we see something’}
\end{align*}

At first glance, the objective-absolute contrast appears to be a clear case of differential object marking, since there seems to be a special marker dedicated to definite objects. We may thus be tempted to posit an object-shift analysis along the lines of Lima 2006, in which the special marking in (14a) results from the raising of the definite object out of the vP, whereas the indefinite object in (14b) remains in situ and thus does not qualify for special marking (cf. Diesing 1992, 1997). However, as discussed in Section 6.4.2.3, closer inspection renders this analysis untenable. It is true that the outer suffix indexes the object in direct forms like those in (14), but in inverse forms, the outer suffix instead indexes the *subject*, and in such
forms, its occurrence continues to be conditioned by definiteness: the outer suffix appears when the subject is definite, as in (15a), and not when the subject is indefinite, as in (15b).

(15) Inverse forms: outer suffix marks subject

<table>
<thead>
<tr>
<th>a. OBJECTIVE FORM: 0s—1p</th>
<th>b. ABSOLUTE FORM: (0—)1p</th>
</tr>
</thead>
<tbody>
<tr>
<td>definite subject; outer suffix appears</td>
<td>indefinite subject; no outer suffix</td>
</tr>
<tr>
<td>ne- wa-pam -ekw -ene- -na-n [i]</td>
<td>ne- wa-pam -ekw -ehm -ena- [Ø]</td>
</tr>
<tr>
<td>1- see -INV -PRES -1p -0s</td>
<td>1- see -INV -PRES -1p</td>
</tr>
<tr>
<td>‘it sees us’</td>
<td>‘something sees us’</td>
</tr>
</tbody>
</table>

The occurrence of this pattern for subjects as well as objects removes the possibility of an object shift analysis. Instead, I have proposed that the pattern arises from nothing more than the presence of a \[uD, u\text{Definite}\] probe on \(T^0\), the head that governs the occurrence of the outer suffix (§6.4.3). The objective-absolute contrast is thus simply a matter of probe-goal definiteness agreement. From a diachronic perspective, this analysis is bolstered by the fact that the outer suffix apparently originated as a nominal definite article (§6.4.2.2). In the transition from noun inflection to verb inflection, then, the outer suffix simply changed from marking definiteness to agreeing with definiteness.

The theoretical upshot of this discussion is that differential object marking does not necessarily have to be analyzed as reflecting some structural difference in the position of definite and indefinite objects. It could instead simply reflect the presence of a probe that is sensitive to the relevant feature (definiteness in the case of Proto-Algonquian, but also specificity and/or animacy in other languages). Normally the position-based and probe-based analyses are difficult to tease apart, but in Algonquian, the existence of the direct-inverse system, which allows the patterning of subjects and objects to be inverted, provides conclusive evidence that it must be the agreement probe that is responsible, not the position of the object. Cross-linguistically, then, there is no a priori reason to consider a position-based analysis more desirable than a probe-based analysis: both patterns are possible.

7.2.8 Split ergativity

In Proto-Algonquian and many of the daughter languages, subject agreement in the independent order displays what can be described as a split-ergative pattern. To show how this is the case, the table in (16) compares the agreement that appears on some canonical present-tense transitive and intransitive forms. In this table, boxes indicate subject agreement and
“V” stands for the sequence of the verb stem, theme sign, and formative, which are omitted for simplicity. (The transitive forms all take the 3/4OBJ (or “direct”) theme sign -a-.)

(16) Comparison of present-tense transitive and intransitive subject agreement in PA

<table>
<thead>
<tr>
<th>TRANSITIVE (DIRECT)</th>
<th>INTRANSITIVE</th>
</tr>
</thead>
<tbody>
<tr>
<td>1p—3p</td>
<td>1p</td>
</tr>
<tr>
<td>( \text{ne-} \ V , -\text{ena-} , -\text{aki} )</td>
<td>( \text{ne-} \ V , -\text{ena-} , -\emptyset )</td>
</tr>
<tr>
<td>2p—3p</td>
<td>2p</td>
</tr>
<tr>
<td>( \text{ke-} \ V , -\text{wa-w} , -\text{aki} )</td>
<td>( \text{ke-} \ V , -\text{wa-} , -\emptyset )</td>
</tr>
<tr>
<td>3p—4p</td>
<td>3p</td>
</tr>
<tr>
<td>( \text{we-} \ V , -\text{wa-w} , -\text{ahi} )</td>
<td>( \emptyset \ V , -\emptyset )</td>
</tr>
</tbody>
</table>

In transitive forms, the agreement pattern is uniform: subject agreement is marked by the prefix and inner suffix while object agreement is marked by the outer suffix. In intransitive forms, however, the pattern varies: 1st/2nd-person subject agreement is marked by the prefix and inner suffix but 3rd-person subject agreement is instead marked by the outer suffix. That is, 1st/2nd-person intransitive subjects are marked like transitive subjects while 3rd-person intransitive subjects are marked like transitive objects. This is an ergative pattern. In particular, it is a person-based split-ergative pattern, since only 3rd-person intransitive subjects, not all intransitive subjects, are marked like transitive objects.

In fact, the split is even more refined than this. The intransitive forms in (16) are in the present tense. We have seen that past-tense intransitive forms, as evidenced by Plains Cree, display a different agreement pattern: as shown in (17), all intransitive subjects, even 3rd persons, are marked by the prefix and inner suffix, just like a transitive form (§6.4.1, §6.5).

(17) Past-tense intransitive subject agreement in PA (based on Plains Cree)

<p>| |</p>
<table>
<thead>
<tr>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1p</td>
</tr>
<tr>
<td>( \text{ne-} \ V , -\text{ena-} , -\emptyset )</td>
</tr>
<tr>
<td>2p</td>
</tr>
<tr>
<td>( \text{ke-} \ V , -\text{wa-} , -\emptyset )</td>
</tr>
<tr>
<td>3p</td>
</tr>
<tr>
<td>( \text{we-} \ V , -\text{wa-} , -\emptyset )</td>
</tr>
</tbody>
</table>
In the past tense, then, no split-ergative pattern exists. The split-ergative pattern is thus both person-based and tense-based: 3rd-person present-tense intransitive subjects are marked like transitive objects. 3rd-person past-tense intransitive subjects are not, nor are 1st/2nd-person intransitive subjects in either tense. (Furthermore, the split-ergative pattern appears only in the independent order; it is entirely absent from the more archaic conjunct inflection. Diachronically, then, split ergativity seems to have arisen as a consequence of the innovation of the independent inflection—an interesting observation that I will set aside here.)

Despite being restricted by both person and tense, the pattern in (16) is undeniably ergative, as observed for Passamaquoddy by Bruening (2007). Should we conclude, then, that Proto-Algonquian and many of the daughter languages are split-ergative languages? I will argue that such a conclusion would in fact be an overgeneralization. While the pattern exhibited by the particular forms compared in (16) is clearly ergative, a broader examination of the independent inflection reveals that the explanatory force of the ergative characterization is not as strong as it first appears, and we in fact gain little in the way of insight by labelling the agreement as ergative. Two sets of forms lead to this conclusion: (1) the inverse transitive forms and (2) the absolute transitive forms.

**Inverse forms.** The split-ergative pattern in (16) above was established by comparing intransitive agreement with the agreement in direct transitive forms—that is, transitive forms in which the subject is higher-ranked than the object on the Person Hierarchy. If we instead choose to compare intransitive agreement with inverse forms, as in (18), the correspondences are quite different. As in (16) above, subject agreement is boxed and “V” represents the verb, theme sign, and formative. (The transitive forms all take the inverse theme sign -ekw.)

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5Hewson (1987) also discusses the issue of ergativity in Algonquian, but he does not consider the intransitive agreement pattern in (16). Instead, his primary observation is the fact that transitive verb stems are sensitive to the animacy of the patient while intransitive verb stems are sensitive to the animacy of the agent. This could indeed be regarded as some form of “stem ergativity”, but it applies only to the stem and not to the entire agreement system: while it is true that the transitive stem reflects the animacy of the patient alone, transitive agreement indexes both the patient and the agent, as shown in (16). I suggest that the apparent sensitivity of the transitive stem to the animacy of the patient is in fact simply allomorphy triggered by the following object-agreement theme sign, which differs for animate and inanimate objects. Stem alternations thus should not be regarded as contributing to an ergative pattern in any significant sense of the term.
(18) Comparison of intransitive forms with *inverse* transitive forms

<table>
<thead>
<tr>
<th>TRANSITIVE (INVERSE)</th>
<th>INTRANSITIVE</th>
</tr>
</thead>
<tbody>
<tr>
<td>3p—1p</td>
<td>ne-V-ena-aki</td>
</tr>
<tr>
<td>1- v</td>
<td>1p</td>
</tr>
<tr>
<td>1- p</td>
<td>3p</td>
</tr>
<tr>
<td>3p—2p</td>
<td>ke-V-wa-aki</td>
</tr>
<tr>
<td>2- v</td>
<td>2p</td>
</tr>
<tr>
<td>2- p</td>
<td>3p</td>
</tr>
<tr>
<td>4p—3p</td>
<td>we-V-wa-ahi</td>
</tr>
<tr>
<td>3- v</td>
<td>3p</td>
</tr>
<tr>
<td>3- p</td>
<td>4p</td>
</tr>
</tbody>
</table>

There is still a person-based split-ergative pattern in these forms, but it is exactly the opposite of the pattern in (16) above: here, it is the 1st/2nd-person intransitive subjects that are marked like transitive objects (i.e. with the prefix and inner suffix), while the 3rd-person intransitive subject is marked like a transitive subject (i.e. with the outer suffix). Once we take these forms into account, the description of the split-ergative pattern becomes quite complex: under the particular conditions that lead to *direct* inflection, the ergative pattern applies to 3rd-person intransitive subjects, while under the conditions that lead to *inverse* inflection, the ergative pattern applies to 1st/2nd-person intransitive subjects. It is still technically accurate to describe this as an ergative system, but the complexity of the description indicates that the notion of ergativity is no longer buying us much in the way of analytical elegance.

**Absolute forms.** Proto-Algonquian and several daughter languages have a contrast between **OBJECTIVE** and **ABSOLUTE** transitive forms, which, in a canonical direct context, are distinguished as follows: in objective forms, the object is definite and is indexed by the outer suffix, while in absolute forms, the object is indefinite and no outer suffix appears (§6.4.2.3). An example is given in (19).

(19) Objective and absolute forms (from Chapter 6, example (48))

<table>
<thead>
<tr>
<th>OBJECTIVE: 1p—3p</th>
<th>ABSOLUTE: 1p(—3)</th>
</tr>
</thead>
<tbody>
<tr>
<td>definite object indexed by outer suffix</td>
<td>indefinite object, no outer suffix</td>
</tr>
<tr>
<td>ne-wa-pam-a-w-ena-aki</td>
<td>ne-wa-pam-a-hm-ena-Ø</td>
</tr>
<tr>
<td>1- see-3OBJ-PRES-1p-3p</td>
<td>1- see-3OBJ-PRES-1p</td>
</tr>
<tr>
<td>‘we see them’</td>
<td>‘we see someone/some people’</td>
</tr>
</tbody>
</table>
The split-ergative pattern was established in (16) above by comparing intransitive forms with objective transitive forms. The data from (16) is repeated in (20); note that all of the transitive forms carry the outer suffix. (Boxes here indicate subject agreement.)

(20) Subject agreement: intransitive versus transitive objective (repeated from (16))

<table>
<thead>
<tr>
<th>TRANSITIVE (OBJECTIVE)</th>
<th>INTRANSITIVE</th>
</tr>
</thead>
<tbody>
<tr>
<td>1p—3p</td>
<td>1p</td>
</tr>
<tr>
<td>ne- V -ena-n -aki</td>
<td>ne- V -ena- -Ø</td>
</tr>
<tr>
<td>2p—3p</td>
<td>2p</td>
</tr>
<tr>
<td>ke- V -wa-w -aki</td>
<td>ke- V -wa- -Ø</td>
</tr>
<tr>
<td>3p—4p</td>
<td>3p</td>
</tr>
<tr>
<td>we- V -wa-w -ahi</td>
<td>Ø- V -Ø -aki</td>
</tr>
</tbody>
</table>

Absolute transitive forms, however, are different: they in fact display exactly the same split-ergative agreement pattern as intransitive forms do. As shown in (21), the 3rd-person subject of an absolute transitive form is marked by the outer suffix, just as the 3rd-person subject of an intransitive form is.

(21) Subject agreement: transitive absolute

<table>
<thead>
<tr>
<th>1p(—3)</th>
<th>1p(—3)</th>
</tr>
</thead>
<tbody>
<tr>
<td>ne- V -ena- -Ø</td>
<td>ne- V -ena- -Ø</td>
</tr>
<tr>
<td>2p(—3)</td>
<td>2p(—3)</td>
</tr>
<tr>
<td>ke- V -wa- -Ø</td>
<td>ke- V -wa- -Ø</td>
</tr>
<tr>
<td>3p(—4)</td>
<td>3p(—4)</td>
</tr>
<tr>
<td>Ø- V -Ø -aki</td>
<td>Ø- V -Ø -aki</td>
</tr>
</tbody>
</table>

The ergative agreement pattern in Proto-Algonquian is thus not limited to intransitive subjects: it can affect transitive subjects as well. For clarity, the patterning of the three types of forms—intransitives, absolute transitives, and objective transitives—is compared in (22).
Indexing of 3rd-person subject in PA

\[\text{(22)}\]

<table>
<thead>
<tr>
<th>FORM</th>
<th>SUBJECT MARKED BY</th>
<th>EXAMPLE</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. intransitive</td>
<td>outer suffix (like transitive object)</td>
<td>(\text{pankihšin} \ -w' \ -aki) fall -PRES -3p ‘they fall’</td>
</tr>
<tr>
<td>b. transitive absolute</td>
<td>outer suffix (like transitive object)</td>
<td>(\text{wa∙pam} \ -e\cdot \ -w' \ -aki) see -3/4OBJ -PRES -3p ‘they see someone’</td>
</tr>
<tr>
<td>c. transitive objective</td>
<td>prefix and inner suffix (like transitive subject)</td>
<td>(\text{we-} \ \text{wa∙pam} \ -a\cdot \ -w \ -\text{wa-} \ -w \ -ahi) 3- see -3/4OBJ -PRES -3p -4p ‘they see the others’</td>
</tr>
</tbody>
</table>

With respect to subject agreement, then, the transitive absolute form in (22b) displays split ergativity just as much as the intransitive form in (22a) does: in both forms, the 3rd-person subject is marked by the outer suffix, like a transitive object would be. The marking of the transitive subject in (22b) like an object contradicts the standard definition of ergativity as a phenomenon in which only intransitive subjects are marked like objects. We could attempt to rescue the ergative characterization by saying that the transitive absolute form in (22b) is morphologically intransitive despite the fact that its argument structure includes a patient, and that this morphological intransitivity causes it to be treated as an intransitive for the purposes of the ergative pattern. However, this proposal cannot be correct: the transitive absolute form in (22b) contains the 3/4OBJ theme sign \(-a\cdot \sim e\cdot\), just as the transitive objective form in (22c) does, so by this criterion, the absolute form is indeed morphologically transitive. And yet it is still somehow treated as intransitive for the purposes of the ergative pattern.

We must conclude, then, that “ergativity” in Proto-Algonquian is not governed by transitivity. Instead, it seems to be governed by something much more shallow: the outer agreement suffix. If the outer suffix indexes the object, as in the transitive objective form in (22c), then the subject will be indexed by the prefix and inner suffix. If the outer suffix does not index the object, as in the intransitive form in (22a) and the transitive absolute form in (22b), then it remains free to index a 3rd-person subject instead. In the intransitive form in (22a), this outer-suffix subject agreement gives rise to what appears to be an ergative pattern, but in the transitive absolute form in (22b), the ergative description is less apt.
In both cases, an alternative characterization is available that makes no reference to ergativity: it could simply be the case that the outer suffix is a side-effect of the D-agreement operation triggered by T^0, as proposed in Chapter 6 (§6.5). When D-agreement ends up targeting the argument that is highest-ranked on the Person Hierarchy—that is, the argument that Infl^0 already agreed with—the quasi-ergative pattern in (22a–b) is the result. The person split follows from my proposal that only 3rd persons are DP in Proto-Algonquian, while the tense split follows from my proposal that present-tense T^0 can override the Activity Condition and “steal” the goal of Infl^0 while past-tense T^0 cannot. This analysis accounts straightforwardly for the full range of quasi-ergative forms in Proto-Algonquian: intransitives, canonical direct objective transitives, inverse objective transitives, and absolute transitives (§6.5). An ergative analysis, on the other hand, straightforwardly accounts only for intransitives and direct objective transitives and becomes awkward when extended to the other forms.

I conclude that what appears to be an ergative agreement pattern in Proto-Algonquian is in fact best understood as the result of a competition between two agreement probes (T^0 and Infl^0), as proposed in Chapter 6. While it remains accurate to characterize the core examples in (16) as a split-ergative pattern, this characterization buys little in the way of insight because the pattern does not generalize to the remainder of the independent inflection. From a theoretical perspective, this conclusion is in line with proposals that ergativity is an epiphenomenon with no single, universal source (e.g. Johns 1992; Wiltschko 2006). Patterns that can be described as ergative vary both in their details and their morphosyntactic origins. In the case of Proto-Algonquian, the origin of ergative patterning is quite shallow: a D-agreement probe on T^0.

7.2.9 Status of the third person

Following Benveniste’s (1950/1966) influential suggestion that 3rd-person is in fact “non-person”, it is often assumed that 1st/2nd-persons are specified for [Person] or some equivalent feature while 3rd-persons are not (e.g. Hale 1973; Halle 1997; Noyer 1997; Corver and Delfitto 1999; Kayne 2000; Harley 2002; Fuss 2005). Some disagree with this assumption, however (e.g. Nevins 2007; Bejar and Rezac 2009), and Trommer (2008) argues at length that 3rd-person must be overtly marked in the Central Algonquian language Menominee. In this thesis I have followed Lochbihler (2012) in adopting the person specifications in (23).
This analysis shares aspects of both views of 3rd-person. The Benveniste view can be captured by focusing on the [Participant] feature, which distinguishes marked 1st/2nd-persons from unmarked 3rd-persons. In contrast to the Benveniste view, however, 3rd-persons are not entirely unmarked: animate 3rd-persons do bear a [Person] feature, and it is only inanimate 3rd-persons that are true “non-persons”, as Lochbihler (2012:38) observes.

I suggest that this analysis does not contradict the Benveniste view of person. Instead, it suggests a refinement: what counts as “non-person” depends on how many person distinctions a given language makes. In a language that distinguishes only 1, 2, and 3, 3rd-person will be the unmarked “non-person,” but in a language like Proto-Algonquian, which makes person distinctions within the broad class of 3rd-persons (3, 4, and 0), only a subset of 3rd-persons will be the unmarked “non-person”.

The inanimate-as-non-person analysis has another important consequence: it allows the Algonquian agreement system to be characterized purely in terms of person rather than as a combination of person and animacy. The prominence of animacy in Algonquian morphosyntax is often remarked upon: intransitive verb stems are sensitive to the animacy of their subjects, transitive verb stems are sensitive to the animacy of their objects, and special inflection is required in order to encode an inanimate actor (§4.6.2). One possible conclusion from these facts is that Algonquian has an animacy-based agreement system—a special type of agreement system that makes no reference to grammatical relations and does not involve structural positions such as Spec-VoiceP or Spec-TP, as proposed by Ritter and Rosen (2005). Such a system would be radically different from the garden-variety type of agreement both in its sensitivity to what is effectively a gender feature and in its eschewal of A-positions. This is not the case, however, under the inanimate-as-non-person analysis proposed by Lochbihler (2012) and adopted in this thesis. Once we recognize a link between animacy and [Person], it is possible to formulate an analysis of Algonquian agreement that makes no reference to
animacy at all. Instead, all agreement is person agreement, and the apparent sensitivity to animacy is simply a reflection of the unspecification of inanimates for [Person].

7.3 Connections to Algonquian linguistics

This section situates the proposed analysis of Proto-Algonquian agreement with respect to the broader literature on Algonquian languages. Section 7.3.1 summarizes my proposed characterization of the essential properties of Proto-Algonquian agreement. Section 7.3.2 then lays the groundwork for extending the analysis from Proto-Algonquian to the daughter languages by surveying a number of diachronic changes that have affected the patterning of agreement across the Algonquian family.

7.3.1 Properties of Algonquian agreement

As discussed in Chapter 3, many different characterizations of the Algonquian agreement system have been proposed in the literature. This section summarizes the characterization of Algonquian agreement that I have argued for in this thesis. The main purpose of the section is to provide a list of the positions that I have taken on a variety of analytical issues so that my proposals may be easily compared with other proposals in the literature. I have made the following series of analytical claims:

1. Except for inverse -ekw, theme signs are object person agreement (cf. Rhodes 1994; Brittain 1999b). The you-and-me theme signs -i and -eθ mark 1st- and 2nd-person agreement respectively. The “direct” theme sign -a∙ marks 3rd-person agreement. The TI theme sign -am occurs when the object has no person feature (i.e. is inanimate).

2. Inverse -ekw is structurally higher than the other theme signs (cf. Déchaine and Reinholtz 2008). The object-agreement theme signs are in Voice₀ while inverse -ekw is in a higher head position that I have labelled as Infl₀ (§4.3).

3. The direct-inverse pattern is enabled by the equidistance of the subject and object. Object person agreement on Voice₀ triggers A-movement of the object to a position equidistant with that of the subject. This explains why all subsequent agreement operations are not sensitive to subject/object status and instead target whichever of the two arguments is the best match for the probing feature. The best match is sometimes the subject (=direct form) and other times the object (=inverse form) (§4.3).

4. Person hierarchy effects reflect the removal of locality as a factor in agreement. As stated in the previous point, the equidistance of the subject and object removes locality
as a factor in determining whether the subject or object is targeted. In this situation, the way is clear for optimal feature matching to play the deciding role instead (thus giving rise, descriptively, to person hierarchy effects). Under this analysis, the person hierarchy is not some extra mechanism that is added in Algonquian. Instead, its operation is an instance of the “emergence of the unmarked” (McCarthy and Prince 1994): optimal feature matching is always potentially a factor in agreement, but it is normally overruled by the stronger requirement for agreement to be local. In most cases, only a single goal is most local, so it is automatically selected as the target and there is no further role for optimal feature matching. In cases of equidistance, however, two goals are equally local, so locality is irrelevant in deciding between them. It is in such cases that optimal feature matching exceptionally gains the opportunity to affect the outcome of the derivation by selecting whichever of the equidistant goals is the best match for the probe. Person hierarchy effects thus result from the removal of locality as a factor in agreement, not from the addition of any sort of hierarchy.

5. Intralanguage variation in direct-inverse patterning reflects variation in the probe on Infl$^0$. The wider occurrence of the inverse theme sign -ekw in the independent can be accounted for by positing that Infl$^0$ probes for [uPers, uProx] in independent-order clauses and for [uPers, uProx, uD] in conjunct-order clauses. This is the only difference we need to posit: the structural configurations and spell-out rules involved in the direct-inverse system are otherwise identical in the two orders.

6. Secondary objects are objects that cannot be targeted by person agreement. The object of a pseudo-transitive verb (§4.6.4) and the theme of a ditransitive verb (§4.6.5) share certain morphosyntactic properties that have led Algonquianists to group them together as the class of secondary objects. While I have proposed that the two types of secondary objects occupy different syntactic positions, the positions share the property of being inaccessible to person agreement from Voice$^0$ or Infl$^0$. Under my analysis, then, a secondary object can be defined as any object that falls outside the scope of person agreement. This analysis maintains the traditional insight that the two types of secondary objects form a single class.

7. Only animate nominals are specified for [Person]. As discussed above (§7.2.9), I follow Lochbihler (2012) in assuming that inanimate nominals lack a [Person] feature. Under this assumption, the apparent sensitivity of Algonquian morphosyntax to animacy can instead be understood as sensitivity to person.

8. Only 3rd-person nominals are DPs. Following van Gelderen’s (2013) proposal for English, I have proposed that in Proto-Algonquian, 1st/2nd-person nominals are PersP while 3rd-person nominals (i.e. 3, 4, and 0) are DP. This proposal captures the existence of special
categories that apply only to 3rd-person nominals such as obviation and absentation, both of which are plausibly associated with the DP layer. It also enables a straightforward analysis of the patterning of agreement in unspecified-actor forms (§5.5–5.6), inanimate-actor forms (§5.7.3), and in the direct-inverse system more generally (§5.7).

9. The unspecified actor construction includes a subject. The morphosyntactic patterning of the passive-like unspecified actor construction can be accounted for if we posit the presence of a bare PersP subject. The construction is thus not a true passive.

10. The agreement morphemes pattern into three agreement systems. In order to capture the fact that certain agreement morphemes always act together to index the same argument, I have proposed that the agreement morphemes fall into agreement systems that consist of a probe in the narrow syntax plus dependent agreement morphology that is spelled out at PF. Three such systems can be identified:

(24) a. The Voice/Person system (§4.2)
   (i) PROBE: Voice\(^0\), [uPerson], which consistently agrees with the object and is spelled out as an object-agreement theme sign.
   (ii) DEPENDENT AGREEMENT: none.

b. The Iná/Person system (§6.3)
   (i) PROBE: Iná\(^0\), [uPerson, uProximate] (plus [uD] in the conjunct; §5.7), which can agree with the subject, the object, or both arguments. Iná\(^0\) is spelled out as the inverse theme sign -ekw when it agrees only with the object or as -en in the conjunct unspecified-actor form (§5.5).
   (ii) DEPENDENT AGREEMENT: the prefix, analyzed as a proclitic in CP, and the inner suffix, analyzed as an Agr node adjoined to T\(^0\) (§6.3.1.3), both of which track the nominal(s) bearing Iná-case.

c. The T/D system, present only in the independent order (§6.4)
   (i) PROBE: T\(^0\) probe (i.e. the “formative”), [uD, uDefinite].
   (ii) DEPENDENT AGREEMENT: the outer suffix, analyzed as an enclitic in Spec-TP (§6.4.2) that tracks the T-case nominal.

The Proto-Algonquian Voice/Person and Iná/Person systems are continued fairly robustly in most of the daughter languages, but reanalysis of the formative (i.e. T\(^0\)) has undermined the patterning of the T/D system in many of the languages (§7.3.2.6 below).
11. **Proto-Algonquian “agreement” includes clitic doubling.** I have proposed that two of the PA agreement morphemes—the prefix and outer suffix—are in fact clitics (§6.3.1.3, §6.4.2). The surface complexity of the PA independent-order agreement thus results primarily from the presence of both subject and object agreement (on Voice⁰, Inf₁, T⁰, and the inner suffix) and subject and object clitic doubling (the prefix and outer suffix). This analysis also provides a principled reason for one of the main differences between the independent and conjunct orders: the absence of the prefix and outer suffix in the conjunct. We can now capture this difference simply by saying that clitic doubling does not occur in the conjunct.

12. **Proto-Algonquian agreement displays patterns reminiscent of differential object marking and split ergativity.** Although in both cases I have argued that neither of these characterizations is fully accurate (§7.2.7–7.2.8), the Algonquian patterns nevertheless warrant consideration in theoretical discussions of these phenomena.

### 7.3.2 Developments in the daughter languages

The analytical rationale for this thesis is not to develop an analysis of Proto-Algonquian agreement in its own right, but rather to develop a diachronically-grounded analytical framework that can be extended to account for changes in the patterning of agreement in the daughter languages. In order to make a step towards that broader goal, this section surveys a variety of such changes and considers how the proposed analysis would account for them. The following developments are surveyed: paradigmatic leveling (§7.3.2.1), paradigmatic analogy (§7.3.2.2), expanded use of the inverse theme sign in the conjunct order (§7.3.2.3), extension of the inverse theme sign to the you-and-me forms (§7.3.2.4), loss of sensitivity to definiteness (§7.3.2.5), bleaching, deconditioning, and loss of the formative (§7.3.2.6), reanalysis of the enclitic as agreement (§7.3.2.7), and disruption of the split-ergative pattern (§7.3.2.8).

#### 7.3.2.1 Paradigmatic leveling

The simplest morphological changes involve paradigmatic leveling, which refers to the generalization of a form to other positions within the same paradigm. A frequent example in the Algonquian languages involves 1st-person plural inflection. In Proto-Algonquian, the contrast between exclusive and inclusive forms was doubly marked: the prefix differed (ne- ‘1’ for exclusive, ke- ‘2’ for inclusive) and so did the inner suffix (-ena-n ‘1p’ for exclusive, -enaw ‘21p’ for inclusive), as illustrated in (25).
(25) Exclusive and inclusive agreement in Proto-Algonquian

1p—3p  ne- wa∙pam -a∙ -w -ena∙n -aki  ‘we (excl.) see them’

1- see -3OBJ -PRES -1p -3p

21p—3p  ke- wa∙pam -a∙ -w -enaw -aki  ‘we (incl.) see them’

2- see -3OBJ -PRES -21p -3p

This redundant double-marking was leveled out in many of the daughter languages by generalizing one of the inner suffixes to both forms (Goddard 2007:226–27). Menominee, for example, generalized the inclusive suffix (PA -enaw) while Meskwaki, Old Algonquin, and Munsee generalized the exclusive suffix (PA -ena∙n) (Goddard 2007:233–35). This change has little effect on the analysis: we can simply treat the generalized suffix as a 1p marker, with the prefixes continuing to encode the exclusive/inclusive contrast. Such cases of leveling can thus be analyzed as nothing more than a simplification of the spell-out rules.

7.3.2.2 Paradigmatic analogy

Paradigmatic analogy, in which a form is replaced by a corresponding form from another paradigm, can have consequences deeper than those of paradigmatic leveling. An example of such consequences can be observed in the TA inflection of Ojibwe. The Proto-Algonquian TA objective paradigm had the 1p—3s and 2p—3s forms in (26).

(26) 1p and 2p TA objective agreement in Proto-Algonquian

1p—3s  ne- wa∙pam -a∙ -w -ena∙n -a  ‘we (excl.) see him/her’

1- see -3OBJ -PRES -1p -3s

2p—3s  ke- wa∙pam -a∙ -w -wa∙w -a  ‘you (pl.) see him/her’

2- see -3OBJ -PRES -2p -3s

Let us focus on the rightmost three suffixes: the formative, inner suffix, and outer suffix. The development of this sequence in Ojibwe is sketched in (27). In Old Algonquin, a member of the Ojibwe family, the PA forms were continued with only regular phonological changes, indicating that Proto-Ojibwe must have retained the PA formation. In most Ojibwe dialects, however, the 1p form has been replaced by the quite different sequence -min (Goddard 2007:233), which is obviously not a phonologically regular development from historical -na∙n.
Chapter 7

(27) Development of 1p and 2p TA objective agreement in Ojibwe (Goddard 2007:233)

<table>
<thead>
<tr>
<th></th>
<th>PA</th>
<th>OLD ALGONQUIN</th>
<th>OJIBWE</th>
</tr>
</thead>
<tbody>
<tr>
<td>1p—3s</td>
<td>-w-ena∙n-a</td>
<td>-na∙n</td>
<td>-min</td>
</tr>
<tr>
<td>2p—3s</td>
<td>-w-wa∙w-a</td>
<td>-wa∙</td>
<td>-wa∙</td>
</tr>
</tbody>
</table>

The source of this -min is the intransitive agreement paradigm (Goddard 2007:233): the PA 1p intransitive ending was -ehm-ena∙ (formative -ehm plus 1p inner suffix -ena∙), which became -m-in in Ojibwe through regular sound change. Evidently, then, the pattern in (27) results from the analogical extension of the intransitive 1p form -min to the transitive paradigm in most Ojibwe dialects, replacing the inherited 1p—3s form -na∙n.

Such analogical changes have the potential to be morphosyntactically disruptive in ways that simple levelling is not. In (27), for example, the Old Algonquin endings -na∙n and -wa∙ both reflect PA endings containing the formative -w and can thus be regarded as maintaining the PA system in which w-forms register the presence of a lower-ranked 3rd-person argument (§6.4.3.3). In Ojibwe, this system is disrupted by the replacement of the 1p form by -min, which reflects the formative -ehm rather than -w. In Proto-Algonquian, the -ehm and -w formatives never occurred in the same paradigm because their agreement-based conditioning was mutually exclusive (§6.4.3.1). Their occurrence together in the same paradigm in Ojibwe thus potentially signals the breakdown of the PA formative agreement pattern.

7.3.2.3 Extension of the inverse theme sign in the conjunct order

One of the goals of this thesis was to explain why the distribution of the inverse theme sign -ekw differs in the independent and conjunct orders. In the PA conjunct, -ekw occurs only in non-local forms (i.e. 4—3), whereas in the independent, it occurs in both non-local forms and mixed forms (i.e. 4—3, 3—1, 3—2), as summarized in (28). To account for this pattern I proposed that the phi-probe on Infl⁰ is specified differently in the two orders (§5.7.4).
<28> Distribution of inverse -ekw in Proto-Algonquian (§2.5.2.2)

<table>
<thead>
<tr>
<th>CONTEXT</th>
<th>ORDER</th>
<th>CONJUNCT</th>
<th>INDEPENDENT</th>
</tr>
</thead>
<tbody>
<tr>
<td>You-and-me</td>
<td>2—1</td>
<td>-i 1OBJ</td>
<td>-i 1OBJ</td>
</tr>
<tr>
<td></td>
<td>1—2</td>
<td>-eθ 2OBJ</td>
<td>-eθ 2OBJ</td>
</tr>
<tr>
<td>Non-local</td>
<td>3—4</td>
<td>-a· 3/4OBJ</td>
<td>-a· 3/4OBJ</td>
</tr>
<tr>
<td></td>
<td>4—3</td>
<td>-ekw INV</td>
<td>-ekw INV</td>
</tr>
<tr>
<td>Mixed</td>
<td>1—3</td>
<td>-a·Ø 3/4OBJ</td>
<td>-a· 3/4OBJ</td>
</tr>
<tr>
<td></td>
<td>2—3</td>
<td>-a·Ø 3/4OBJ</td>
<td>-a· 3/4OBJ</td>
</tr>
<tr>
<td></td>
<td>3—1</td>
<td>-i 1OBJ</td>
<td>-ekw INV</td>
</tr>
<tr>
<td></td>
<td>3—2</td>
<td>-eθ 2OBJ</td>
<td>-ekw INV</td>
</tr>
</tbody>
</table>

The patterning of -ekw in the independent order remains mostly stable in the daughter languages (but see §7.3.2.4 below). In the conjunct, however, the patterning of -ekw has diverged from that of Proto-Algonquian in several of the daughter languages. The table in (29) surveys the patterning of inverse -ekw in the TA conjunct in Kickapoo (Voorhis 1967: 107–12), Maliseet-Passamaquoddy (Sherwood 1983: 280–83), Plains Cree (Wolfart 1973: 42, 47), and Delaware (Goddard 1979b: 134, 184–87).

<29> Distribution of inverse -ekw in the TA conjunct in some Algonquian languages

<table>
<thead>
<tr>
<th>PA CONJ’T</th>
<th>KICKAPOO</th>
<th>MALISEET-P’QUODDY</th>
<th>PLAINS CREE</th>
<th>DELAWARE</th>
<th>(cf. PA INDEP’T)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2—1</td>
<td>-i</td>
<td>-i</td>
<td>-i</td>
<td>-i</td>
<td>-i</td>
</tr>
<tr>
<td>1—2</td>
<td>-eθ</td>
<td>-en</td>
<td>-l</td>
<td>-it</td>
<td>-aθ</td>
</tr>
<tr>
<td>3—4</td>
<td>-a·</td>
<td>-a·</td>
<td>-a</td>
<td>-a·</td>
<td>-a·</td>
</tr>
<tr>
<td>4—3</td>
<td>-ekw</td>
<td>-ekw</td>
<td>-kw~Ø</td>
<td>-ikw</td>
<td>-ikw</td>
</tr>
<tr>
<td>1—3</td>
<td>-a·Ø</td>
<td>-Ø</td>
<td>-a·Ø</td>
<td>-a·Ø</td>
<td>-a·Ø</td>
</tr>
<tr>
<td>2—3</td>
<td>-a·Ø</td>
<td>-Ø</td>
<td>-a·Ø</td>
<td>-a·Ø</td>
<td>-a·Ø</td>
</tr>
<tr>
<td>3—1</td>
<td>-i</td>
<td>-i</td>
<td>3—1s -i</td>
<td>3—1s -i</td>
<td>-ekw</td>
</tr>
<tr>
<td>3—2</td>
<td>-eθ</td>
<td>-en~eh</td>
<td>3—2s -l~s</td>
<td>-ekw</td>
<td>-ekw</td>
</tr>
<tr>
<td>3—2p</td>
<td>-ekw</td>
<td>-ikw</td>
<td>-ikw</td>
<td>-ekw</td>
<td>-ekw</td>
</tr>
</tbody>
</table>
In Kickapoo (Central Algonquian) and Maliseet-Passamaquoddy (Eastern Algonquian), the Proto-Algonquian conjunct pattern continues with only regular phonological changes. In Plains Cree (Central Algonquian) and Delaware (Eastern Algonquian), however, the PA pattern has been disrupted by the extension of inverse -ekw to the mixed forms, thus bringing the pattern of conjunct-order -ekw more in line with that of the independent. This can be regarded as an analogical rebuilding of the conjunct theme-sign pattern on the model of the independent (Goddard 1979b:85).

If this rebuilding had involved the total replacement of the conjunct pattern with that of the independent, the analysis would be trivial: we could say that the probe on Infl in the conjunct ([uPers, uProx, uD] in PA) had been simplified to match that of the independent ([uPers, uProx]), thus making inverse pattern the same in both orders. Interestingly, however, this is not the case: neither Plains Cree nor Delaware has taken the rebuilding to completion. In Plains Cree, the extension of inverse -ekw was conditioned by number: -ekw has been extended to mixed forms with plural objects (3—1p, 3—2p) but the forms with singular objects retain the original object-agreement theme signs (3—1s, 3—2s). In Delaware, the extension of -ekw has been conditioned by both number and person: -ekw has been extended to all 3—2 forms and to the 3—1p form, but a trace of the PA conjunct pattern remains in the 3—1s form, which retains the original object-agreement theme sign.

The Plains Cree and Delaware data indicate a tendency for the inverse marker -ekw to be extended to plural contexts before being extended to singular contexts. The resulting number-sensitive conditioning of -ekw does not follow from the analysis proposed in this thesis, which recognizes no role for number in the patterning of theme signs. The addition of number as a conditioning factor must thus be included in any micro-comparative analysis of the development of the direct-inverse system in Plains Cree and Delaware.

7.3.2.4 Extension of the inverse theme sign to you-and-me forms

A second change in the distribution of the inverse theme sign -ekw involves the you-and-me forms, illustrated in (30). In Proto-Algonquian, inverse -ekw never appears in the you-and-me forms, which instead use only the object-agreement theme signs -i (1OBJ) and -eθ (2OBJ) in both the conjunct and independent orders (§2.5.2.2). Most of the daughter languages continue this pattern; Kickapoo is given in (30) as an example (Voorhis 1967: 102–3, 109–12). However, in some Ojibwe dialects, such as Nishnaabemwin (Valentine 2001: 287, 295), the pattern has changed: in the 1p—2 form, the original object-agreement theme sign -eθ has been replaced by -igo in both the conjunct and the independent.
(30) Theme signs in you-and-me forms (same in both conjunct and independent)

<table>
<thead>
<tr>
<th>PA</th>
<th>KICKAPOO</th>
<th>NISHNAAVBEMWIN</th>
</tr>
</thead>
<tbody>
<tr>
<td>2—1</td>
<td>-i</td>
<td>-i</td>
</tr>
<tr>
<td>1s—2</td>
<td>-eθ</td>
<td>-en</td>
</tr>
<tr>
<td>1p—2</td>
<td>-eθ</td>
<td>-en</td>
</tr>
</tbody>
</table>

The -igo· morpheme in (30) is not the regular inverse theme sign (PA -ekw > Nish. -igw). Instead, it is the special lengthened version of the inverse theme sign that occurs in the passive-like unspecified actor form (PA -eko· > Nish. -igo·) (§5.6). This correspondence reveals the source of the innovation in the Nishnaabemwin 1p—2 form. As shown in (31), the Nishnaabemwin form is not a regular reflex of the PA 1p—2 form (‘we see you’). Instead, it is homophonous with the X—2 unspecified actor form (‘you are seen’). Evidently, then, Nishnaabemwin has replaced the original 1p—2 form with the X—2 form (David Pentland, p.c.), and, as a side-effect, has introduced a new theme sign -igo· into the you-and-me paradigm.

(31) Origin of the Nishnaabemwin 1p—2 form (independent order)

<table>
<thead>
<tr>
<th>PROTO-ALGONQUIAN</th>
<th>NISHNAAVBEMWIN</th>
</tr>
</thead>
<tbody>
<tr>
<td>X—2s ke-wa-pam-eko·</td>
<td>g-wa-bm-igo·</td>
</tr>
<tr>
<td>2-see-INV(x)</td>
<td>2-see-INV(x)</td>
</tr>
<tr>
<td>‘you are seen’</td>
<td>‘you are seen’</td>
</tr>
<tr>
<td>1p—2s ke-wa-pam-eθ-ehm-ena·</td>
<td>g-wa-bm-igo·</td>
</tr>
<tr>
<td>2-see-2OBJ-PRES-1p</td>
<td>2-see-INV(x)</td>
</tr>
<tr>
<td>‘we see you’</td>
<td>‘we see you’</td>
</tr>
</tbody>
</table>

The analytical status of the innovative Nishnaabemwin 1p—2 form is unclear: should -igo· still be regarded as the unspecified-actor marker here, or can it simply be considered an allomorph of the regular inverse theme sign -igw? In most of the Algonquian languages, the you-and-me forms cannot be classified as direct or inverse (see §2.5.2.1 and Macaulay 2009), so the clear extension of the direct-inverse system to the you-and-me paradigm in Nishnaabemwin would be a significant development.

It is also significant that this change affected the 1p—2 form but not the 1s—2 form, since similar number-sensitive conditioning also applied when the inverse theme sign was extended to the conjunct mixed forms in Plains Cree and Delaware (§7.3.2.3). Number did
not play a role in the conditioning of theme signs in PA, so it is interesting that number does begin to play a role when the distribution of inverse -ekw is altered.

Finally, I point out that the changes discussed here and in the preceding section provide additional support for the approach to theme signs taken in this thesis. I have proposed that the theme signs are spelled out as object agreement in Voice\(^0\) (-i 1OBJ, -eθ 2OBJ, -a· 3OBJ) except when overridden by the inverse marker -ekw, which is spelled out in Infl\(^0\) whenever the probe on Infl\(^0\) agrees with the object. The inverse theme sign -ekw is thus both strong, since it overrides the other theme signs, and variable, since its distribution depends on the specification of the probe on Infl\(^0\). The object-agreement theme signs, on the other hand, are weak, since they are overridden by -ekw, and invariable, since they only ever encode agreement with a particular person. It is not surprising, then, that all of the theme sign changes involve the expansion of inverse -ekw: this is exactly what is predicted by the analysis of -ekw as the strongest and most variable component of the theme sign system.

7.3.2.5 Loss of sensitivity to definiteness

In Goddard’s (1974b, 2007) reconstruction of Proto-Algonquian, the verb-final outer suffix is sensitive to definiteness (§6.4.2.3). In the 1—3 forms in (32), for example, the 3p outer suffix -aki occurs only when the object is definite. I have proposed that the PA outer suffix is a clitic whose appearance is dependent on the \([u\Delta, u\text{Definite}]\) probe on T\(^0\) (§6.4.3).

(32) Sensitivity of the outer suffix to definiteness in Proto-Algonquian

\begin{align*}
\text{a. 1p—3p.DEF ("objective" form)} & & \text{b. 1p—3.INDEF ("absolute" form)} \\
\text{ne-wa-pam-a-w-ena-n-aki} & & \text{ne-wa-pam-a-hm-ena-} \\
\text{1-see-3OBJ-PRES-1p-3p} & & \text{1-see-3OBJ-PRES-1p} \\
\text{‘we see them’} & & \text{‘we see someone’}
\end{align*}

A few of the daughter languages retain this pattern, the best example being Delaware (Goddard 1974b, 1979b). Most of the languages, however, have lost the sensitivity to definiteness. In the 1—3 forms from Ojibwe, Plains Cree, and Maliseet-Passamaquoddy in (33), for example, the 3p outer suffix occurs across the board, regardless of whether the object is definite.
(33) Loss of sensitivity to definiteness (1p—3p forms)

<table>
<thead>
<tr>
<th>Language</th>
<th>Formulation</th>
<th>Meaning</th>
<th>Reference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ojibwe</td>
<td>n-wa-bm-a-na-n[-ig]</td>
<td>‘we see them’</td>
<td>(Valentine 2001:287)</td>
</tr>
<tr>
<td>Plains Cree</td>
<td>ni-wa-pam-a-na-n[-ak]</td>
<td>‘we see them’</td>
<td>(Wolfart 1973:41)</td>
</tr>
<tr>
<td>Maliseet-Pass.</td>
<td>n-wicohkem-a-n[-ok]</td>
<td>‘we help them’</td>
<td>(Sherwood 1983:271)</td>
</tr>
</tbody>
</table>

The simplest account of the loss of sensitivity to definiteness in these languages would be to posit that the probe on $T^0$ has changed from $[uD, u{\text{Definite}}]$ to just $[uD]$, thus allowing $T^0$ and the outer suffix to agree with any DP regardless of its definiteness. The full story may not, however, be as simple as this. We will see in the following sections that in many of the daughter languages, $T^0$ itself has been modified or even lost (§7.3.2.6), and in these languages it may be the case that the outer suffix has been reanalyzed from an enclitic generated by $T^0$ to an agreement probe of its own (§7.3.2.7). The loss of sensitivity to definiteness might thus be just one sign of a deeper disruption of the T/D-agreement system.

7.3.2.6 Bleaching, deconditioning, and loss of the formative

Across the Algonquian languages, the most variable element of the independent-order inflection is the morpheme that Goddard (2007) refers to as the “formative”, which I have analyzed as $T^0$ (§6.4.1). In Proto-Algonquian, the formative has two functions: tense marking and 3rd-person agreement. I will distinguish three types of changes that affect the formative in the daughter languages: (1) bleaching, in which it ceases to mark tense, (2) deconditioning, in which its allomorphs cease to register 3rd-person agreement, and (3) loss, in which it ceases to exist as a distinct morphological slot. This section discusses each type of change in turn.

1. Bleaching of the formative. I have proposed that in Proto-Algonquian the formative was $T^0$. This proposal is based on Plains Cree, in which the usual reflexes of the Proto-Algonquian formative (PA-ehm, -w, -w’, -en(e∙)) are uniformly replaced by -ihtay (PA-entay) in the preterit, a pattern that Goddard (2007) concludes must be archaic. Projecting back to PA, this alternation produces minimal pairs like the one in (34) (see §6.4.1).
(34) 1p—3p present and past tense in Proto-Algonquian (based on Plains Cree)

<table>
<thead>
<tr>
<th></th>
<th>PRES</th>
<th></th>
<th>PAST</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>ne-wa-pam-a- -w</td>
<td>ena-n-aki</td>
<td></td>
</tr>
<tr>
<td>1-see-3OBJ [-PRES]</td>
<td>1p-3p</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

'we see them’

Such minimal pairs indicate that the formative is a tense marker: the present tense is marked by the allomorphs -ehm, -w, -w', -en(e∙) (conditioned by agreement; see following paragraph) and the past tense is marked by the allomorph -entay. It is only Cree, however, that preserves this present-past contrast. The languages other than Cree continue only the present-tense forms of T₀ (PA -ehm, w, w', -en(e∙)). In these languages there are no minimal pairs such as (34) and thus no evidence that the formative is a tense marker. We must therefore conclude that in the languages other than Cree, the formative has been bleached of its semantic content. It no longer marks tense and may no longer be categorially T₀. Its only remaining function is the agreement signalled by its various allomorphs.  

2. Deconditioning of the formative. The present-tense allomorphs of the formative (T₀) in Proto-Algonquian are conditioned by agreement triggered by the [uD, uDefinite] probe on T₀ (§6.4.3), as summarized in (35). The goal of T₀ is also doubled by the outer suffix.

(35) Conditioning of the allomorphs of T₀

a. If T₀ fails to agree, T₀ ←→ -ehm
b. If T₀ agrees with a DP that is eligible for person agreement (i.e. subject or primary object),
   (i) T₀ ←→ -w' if agreement overrides the Activity Condition
   (ii) T₀ ←→ -w elsewhere
c. If T₀ agrees with a DP that is ineligible for person agreement (i.e. inanimate object or secondary object), T₀ ←→ -en(e∙)

Most of the languages have lost this conditioning to some extent. As an example, consider the contrast between -w and -ehm. In Proto-Algonquian, this contrast produces two parallel

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6The bleaching of the formative does not mean that the languages other than Cree have entirely ceased marking tense on the verb. In addition to the formative, the independent inflectional template, repeated in (i), contains a second suffix slot farther from the stem, referred to as “Mode” in this thesis, that hosts a variety of suffixes marking tense, aspect, and modality (e.g. PA -san ‘assertive’, -tweke-n ‘dubitative’, -pan ‘preterit’; Pentland 1999:243). Tense marking in this slot continues in many of the languages.

(i) Inflectional template for independent-order Proto-Algonquian verb (from §6.1)

Prefix + Stem + Theme sign + Negative + Formative (T₀) + Inner suffix + Mode + Outer suffix
verb paradigms, as exemplified by the 1—3 forms in (36): the “objective” \(w\)-forms occur when \(T^0\) agrees with a definite object and the “absolute” \(ehm\)-forms occur when the object is indefinite and \(T^0\) fails to agree (cf. Goddard 1974b, 2007).

(36) PA 1—3 forms: \(w\)-paradigm contrasts with \(ehm\)-paradigm

<table>
<thead>
<tr>
<th></th>
<th>PA OBJECTIVE ((T^0 \leftrightarrow -w))</th>
<th>PA ABSOLUTE ((T^0 \leftrightarrow -ehm))</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>(T^0) agrees with definite object</td>
<td>indefinite object, (T^0)-agreement fails</td>
</tr>
<tr>
<td>1s—3s</td>
<td>(ne-wa-pam-a) (-w)-a</td>
<td>(1)-see-3OBJ-PRES-3s</td>
</tr>
<tr>
<td>1s—3p</td>
<td>(ne-wa-pam-a) (-w)-aki</td>
<td>(1)-see-3OBJ-PRES-3p</td>
</tr>
<tr>
<td>1p—3s</td>
<td>(ne-wa-pam-a) (-w)-ena(n)-a</td>
<td>(1)-see-3OBJ-PRES-1p-3s</td>
</tr>
<tr>
<td>1p—3p</td>
<td>(ne-wa-pam-a) (-w)-ena(n)-aki</td>
<td>(1)-see-3OBJ-PRES-1p-3p</td>
</tr>
</tbody>
</table>

In Kickapoo, however, the two paradigms have been combined into one, as shown in (37) (Voorhis 1967:98). Definiteness of the object no longer plays a role and there is no longer a contrast between forms with \(-w\) and forms with \(-ehm\). Instead, the \(w\)-forms occur in the singular-subject portion of the combined paradigm and the \(ehm\)-forms occur in the plural-subject portion. In these Kickapoo forms, then, it is clear that the choice between \(-w\) and \(-ehm\) is no longer conditioned by agreement with the object, unlike in PA.

(37) Kickapoo 1—3 forms: single combined \(w/ehm\)-paradigm

<table>
<thead>
<tr>
<th></th>
<th>KICKAPOO ((T^0 \leftrightarrow -w\sim-ehm))</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>definite or indefinite object</td>
</tr>
<tr>
<td>1s—3s</td>
<td>(n-wa-pam-a) (-w)-a</td>
</tr>
<tr>
<td>1s—3p</td>
<td>(n-wa-pam-a) (-w)-aki</td>
</tr>
<tr>
<td>1p—3</td>
<td>(n-wa-pam-a) (-p)-ena</td>
</tr>
</tbody>
</table>

A similar example involves the formative \(-en(e\cdot)\), which occurs in Proto-Algonquian when \(T^0\)-agreement targets a DP that is ineligible for person agreement—that is, an inanimate ob-
ject or a secondary object. In functional terms, -en(e-) can be regarded as marking agreement with a non-core argument, a function that has been maintained in the Central Algonquian language Ojibwe (Rhodes 1990 on “n-registration”) and the Eastern Algonquian language Penobscot (Quinn 2006 on “n-peripheral marking”). In Cree, however, the use of the -en(e-) forms has been greatly expanded through the replacement of all original -ehm forms with -en(e-) forms (Goddard 2007:226). An example of this replacement is shown in (38).

(38) Replacement of original -ehm forms with -en(e-) forms in Cree

a. PA: T⁰ ↔ -en(e-) with inanimate object, -ehm in intransitive

<table>
<thead>
<tr>
<th>Transitive 2p—0s</th>
<th>Intransitive 2p</th>
</tr>
</thead>
<tbody>
<tr>
<td>ke- wa-pant -a-</td>
<td>ke- nepa- -hm-</td>
</tr>
<tr>
<td>2- see -0obj -přes -2p-0s</td>
<td>2- sleep -přes -2p</td>
</tr>
<tr>
<td>‘you (pl.) see it’</td>
<td>‘you (pl.) sleep’</td>
</tr>
</tbody>
</table>

b. Plains Cree: T⁰ ↔ -en(e-) (> Cree -ina-) in both cases (Wolfart 1973:43)

<table>
<thead>
<tr>
<th>Transitive 2p—0s</th>
<th>Intransitive 2p</th>
</tr>
</thead>
<tbody>
<tr>
<td>ki- wa-paht -e-</td>
<td>ki- nipa- -na-</td>
</tr>
<tr>
<td>2- see -0obj -přes -2p</td>
<td>2- sleep -přes -2p</td>
</tr>
<tr>
<td>‘you (pl.) see it’</td>
<td>‘you (pl.) sleep’</td>
</tr>
</tbody>
</table>

Since the reflex of -en(e-) occurs in both intransitive and transitive forms in Cree, it is no longer possible to say that -en(e-) marks agreement with a non-core object—or, indeed, with any object at all. Once again, then, the PA conditioning of the formative has been lost. Cases of deconditioning such as the Kickapoo and Cree examples have affected the formative in various ways all across the Algonquian family.

3. Loss of the formative. In Proto-Algonquian, the formative (T⁰) had two features: an interpretable tense feature ([±Past]) and an uninterpretable agreement feature ([uD, uDefinite]). As shown above, most of the languages have lost the interpretable tense feature, and many of them have worn down the agreement pattern as well. In some of the languages, then, it is likely that the formative no longer bears any features at all and is thus a “dead” piece of morphology. In such cases, there will be no basis for learners to segment the formative as a separate morpheme, and its phonological content may instead be reanalyzed as belonging to the following inner suffix. In other words, the PA formative-inner suffix sequence may be reanalyzed as a single morphological slot, as indicated in the template in (39).
(39) Potential for reanalysis of formative-inner suffix sequence as a single slot

\[
Pfx + Stem + Theme sign + Neg + \begin{array}{c}
\text{Formative (T⁰)} \\
+ \text{Inner sfx}
\end{array} + \text{Mode} + \text{Outer sfx}
\]

Since I have proposed that the PA inner suffix was an Agr node adjoined to the formative T⁰ (§6.3.1.3), the reanalysis of the formative-inner suffix sequence as a single slot would be structurally simple: the complex T⁰ node would become a simplex T⁰ node. This is shown in (40) for the Kickapoo data from (37) above, in which the formative -ehm plus the 1p inner suffix -ena∙ may have been reanalyzed as a single 1p suffix -ehmena∙ (＞ Kickapoo -pena). The status of the reanalyzed single suffix could be either T⁰ or Agr; I make no firm proposal.

(40) Reanalysis of formative-inner suffix sequence as a single morpheme

\[
\begin{array}{ccc}
\text{PROTO-ALGONQUIAN} & \rightarrow & \text{KICKAPOO} \\
\text{T} & \rightarrow & \text{T/Agr} \\
\text{T} & \rightarrow & \text{-pena} \\
\text{Agr} & \rightarrow & \text{1p} \\
\text{-ehm} & \rightarrow & \text{-ena∙} \\
\text{PRES} & \rightarrow & \text{1p}
\end{array}
\]

The possibility for the formative to be lost as a distinct slot is reinforced by evidence from languages such as Ojibwe, which has forms in which the formative has disappeared entirely. This is shown in (41) for the 1p—3p and 1s—3p Ojibwe forms (Valentine 2001:287), in which the PA formative -w has been lost without a trace.

(41) Loss of the formative in Ojibwe 1—3 forms (stem wa∙pam- 'see')

<table>
<thead>
<tr>
<th></th>
<th>1p—3p</th>
<th>1s—3p</th>
</tr>
</thead>
<tbody>
<tr>
<td>PA</td>
<td>ne- wa-pam -a- [w] -ena∙ n -aki</td>
<td>ne- wa-pam -a- [w] -aki</td>
</tr>
<tr>
<td></td>
<td>1- see -3obj -pres -1p -3p</td>
<td>1- see -3obj -pres -3p</td>
</tr>
<tr>
<td>Ojibwe</td>
<td>n- wa-bm -a- -na-n -ig</td>
<td>n- wa-bm -a- -g</td>
</tr>
<tr>
<td></td>
<td>1- see -3obj -1p -3p</td>
<td>1- see -3obj -3p</td>
</tr>
</tbody>
</table>

It is likely, then, that the formative slot no longer exists at all in some of the languages, at least in certain inflectional paradigms. It is thus important to consider whether there is synchronic evidence for a distinction between the formative and the inner suffix in each daughter language, or whether it is more likely that they have been reanalyzed as a single slot.
I have proposed that in Proto-Algonquian, the formative and the outer suffix constitute a single agreement system: the outer suffix is an enclitic that doubles whichever DP the formative \( T^0 \) agrees with (§6.4). The link between these two morphemes is clear in PA (Goddard 2007:264), but it is severely undermined in languages in which the formative has been deconditioned and/or lost, since the absence of \( T^0 \)-agreement in such languages removes the evidence for a connection between \( T^0 \)-agreement and outer suffix agreement. The deconditioning and/or loss of the formative thus has the consequence of “cutting loose” the outer suffix: rather than being an enclitic whose value is dependent upon \( T^0 \)-agreement, it must instead be analyzed as a distinct agreement marker of its own.

The structural consequences of this reanalysis are significant due to the verb-final position of the outer suffix in the PA inflectional template, which is repeated in (42) for reference.

(42) Inflectional template for independent-order Proto-Algonquian verb (from §6.1)

\[
Pfx + Stem + Theme sign + Neg + Formative (T^0) + Inner sfx + Mode + \boxed{\text{Outer sfx}}
\]

In PA, I have proposed that the verb-final position of the outer suffix arises due to its generation as a clitic in Spec-TP, a position in which it is subsequently stranded due to head-movement of the verb to Mod\( ^0 \) (§6.4.3.1):

(43) Derivation of verb-final position of outer suffix (\( D_{CL} \))

In a daughter language in which the outer suffix is no longer dependent upon \( T^0 \), however, a TP-based analysis such as this is no longer possible. Instead, it may be more appropriate to analyze the outer suffix as a head bearing its own agreement probe. The verb-final position of
the outer suffix in the template in (42) above indicates that this head is higher than $v^0$, Infl$^0$, Neg$^0$, T$^0$, and Mod$^0$. The obvious candidate is C$^0$—and, in fact, analyses of the outer suffix as C$^0$-agreement have been proposed by Branigan and MacKenzie (1999:478) for Innu (Central Algonquian) and Bliss (2013a, 2013b) for Blackfoot (Plains Algonquian). The reanalysis of the outer suffix from a TP-enclitic in Proto-Algonquian to a C$^0$-probe in Innu and Blackfoot can be understood as a natural consequence of the loss of agreement on T$^0$ (the formative) in these languages, which severed the connection between T$^0$ and the outer suffix and opened the door to a new analysis of the outer suffix as an agreement probe rather than an enclitic.

7.3.2.8 Disruption of the split-ergative pattern

In Proto-Algonquian, the interaction between the Infl/Person agreement system and the T/D agreement system (§6.5) gives rise to an agreement pattern reminiscent of split ergativity (§7.2.8), as illustrated in (44). The split-ergative pattern can be observed by comparing the marking of subject agreement, indicated here by boxes, in the transitive TA objective forms (first column) and the intransitive AI forms (third column). In the TA objective forms, subject agreement is consistently marked by the prefix (ne- 1, ke- 2, we- 3), but in the AI forms, the 3rd-person subject is instead marked by the outer suffix (-a 3s), like a transitive object.

(44) Subject agreement in Proto-Algonquian

<table>
<thead>
<tr>
<th>TA OBJECTIVE (e.g. ‘see him/her’)</th>
<th>TA ABSOLUTE (e.g. ‘see someone’)</th>
<th>AI (e.g. ‘sleep’)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1s—3s.DEF ne-$V$-a-w-a</td>
<td>1s(-3) ne-$V$-a</td>
<td>1s ne-$V$</td>
</tr>
<tr>
<td>2s—3s.DEF ke-$V$-a-w-a</td>
<td>2s(-3) ke-$V$-a</td>
<td>2s ke-$V$</td>
</tr>
<tr>
<td>3s—4s.DEF we-$V$-a-w-ari</td>
<td>3s(-4) $V$-e-w’-a</td>
<td>3s $V$-w’-a</td>
</tr>
</tbody>
</table>

As discussed above (§7.2.8), the diagnosis of this pattern as ergativity is complicated by the TA absolute forms in the middle column, which display the split-ergative agreement pattern despite being both syntactically and morphologically transitive. (The morphological transitivity of the absolute forms is indicated by the presence of the theme sign -a-∼e-, which marks 3rd-person object agreement.) Nevertheless, if we set the absolute forms aside, it remains descriptively accurate to describe the difference in subject agreement between the TA objective forms and the AI forms as a split-ergative pattern.
In the Central Algonquian languages Meskwaki, Miami-Illinois, Menominee, and Cree, however, there has been an interesting disruption of the split-ergative pattern. These languages have merged the TA objective and absolute forms into a single paradigm that retains the objective forms for 1s and 2s subjects and the absolute form for 3s subjects (Goddard 2007:233), as shown for Meskwaki in (45).

\[(45)\] Meskwaki reflexes of the PA forms in (44) (Goddard 1994a:190)

<table>
<thead>
<tr>
<th>TA (e.g. ‘see him/her/someone’)</th>
<th>AI (e.g. ‘sleep’)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1s—3s [ne-] V-a-w-a</td>
<td>1s [ne-] V</td>
</tr>
<tr>
<td>2s—3s [ke-] V-a-w-a</td>
<td>2s [ke-] V</td>
</tr>
<tr>
<td>3s—4 V-e-w’ -a</td>
<td>3s V-w -a</td>
</tr>
</tbody>
</table>

The resulting pattern can no longer be described as split-ergative, since there is no longer variation in the marking of 3rd-person subjects: now all 3rd-person subjects are marked by the outer suffix, regardless of transitivity. The agreement pattern has thus been simplified from a split-ergative system to an invariant person-sensitive system, with 1s and 2s subjects always marked by the prefix (\[ne-\] 1, \[ke-\] 2) and 3s subjects always marked by the outer suffix (-a 3s) in both intransitive and transitive forms. The analysis of agreement proposed for PA transitive forms thus cannot be carried over unchanged to these languages.

### 7.4 Conclusion

This thesis has proposed an analysis of the verbal agreement inflection of Proto-Algonquian. The analysis covers the morphemes that are conventionally regarded as agreement—the prefix, inner suffix, and outer suffix—as well as the direct and inverse theme signs and the so-called “formative” element of the independent order. The direct-inverse system is analyzed as an effect of the equidistance of the subject and the object, which arises due to object person agreement on Voice$^0$. The abundance of agreement is attributed to the presence of both subject and object clitic doubling in addition to subject and object agreement, and the agreement morphemes, including the clitics, are grouped together into systems such that at most three probes are present in the Proto-Algonquian clause (on Voice$^0$, Infl$^0$ and T$^0$). The analysis applies to all of the major verb classes and straightforwardly accounts for the variation in direct-inverse patterning in the independent and conjunct orders.
The thesis has made contributions on three levels: empirical, analytical, and theoretical. Empirically, the thesis has described the reconstructed agreement inflection of Proto-Algonquian in terms that are accessible to non-specialists, thus making it easier for the diachronic facts to be incorporated into future synchronic work. Analytically, the thesis has developed a simple and comprehensive analysis of the entirety of Proto-Algonquian agreement, which can act as a starting point for diachronic and micro-comparative work on the daughter languages. The beginning stages of such a project were sketched. Theoretically, the comprehensive analysis of such a complex and internally variable agreement system has helped to exemplify the parameters along which agreement systems may vary and has brought to light patterns that are relevant to a variety of theoretical issues, including equidistance, locality, the clitic-agreement distinction, and the sources of split ergativity.
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Appendix: Proto-Algonquian agreement morphology

This appendix is a compilation of the Proto-Algonquian agreement paradigms that have been reconstructed for the independent and conjunct orders in the existing literature (Bloomfield 1946; Goddard 1967, 1974b, 1979a, 1979b, 2007; Proulx 1980a, 1980b, 1982, 1984a, 1984c, 1990; Pentland 1999). It is intended to serve as a reference both for the forms given in this thesis and for research on diachronic Algonquian morphosyntax more generally. When the sources disagree, I normally follow Goddard 2007, as it is the most recent treatment and it takes account of criticisms in earlier works. I also follow Goddard (1994b:205) in writing r for the phoneme that Bloomfield reconstructed as l.

The paradigms presented here are mostly complete, but they do not include forms marking unpredictably obviative subjects (suffix -ri) and objects (suffix -em), which are only partially reconstructed in the literature. (For a description of the functions of these suffixes, see Pentland 1999: 234; 237–8.) Some 3p conjunct forms are omitted for the same reason.

The forms are presented in morpheme-by-morpheme format. I generally show the basic (or underlying) allomorph of each morpheme and note any surface allomorphy below the table. Two particularly common processes, however, will simply be noted here and not repeated in the tables below: (1) the suffix-initial “linking” vowel e occurs only when preceded by a consonant; (2) underlying w + w sequences are simplified to w (Pentland 1999:248–9).

1 Noun inflection

All PA nouns carry one of the outer suffixes in (1), also known as peripheral suffixes (Goddard 1974b:318), which reflect the animacy, number, and obviation of the head noun.

(1) Outer suffixes (Bloomfield 1946:95; Pentland 1999:228; Goddard 2007:209)

<table>
<thead>
<tr>
<th></th>
<th>0s</th>
<th>3s</th>
<th>4s</th>
<th>0p</th>
<th>3p</th>
<th>4p</th>
</tr>
</thead>
<tbody>
<tr>
<td>0s</td>
<td>-i</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3s</td>
<td></td>
<td>-a</td>
<td></td>
<td></td>
<td>-aki</td>
<td></td>
</tr>
<tr>
<td>4s</td>
<td></td>
<td></td>
<td>-ari</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>0p</td>
<td></td>
<td></td>
<td></td>
<td>-ari</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3p</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>-aki</td>
<td></td>
</tr>
<tr>
<td>4p</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>-ahi</td>
</tr>
</tbody>
</table>
Although the outer suffix occurs on all PA nouns, Goddard (2007:265) suggests that in an earlier Pre-PA stage, at the time when the independent-order verb inflection was innovated, the outer suffixes were optional, functioning “like demonstrative pronouns or definite articles.”

PA nouns also inflect to agree with the possessor, when one is present, in person and number. Possessor inflection involves a person-marking prefix and, in plural forms, a person-and-number marking INNER SUFFIX, also known as the CENTRAL SUFFIX (Goddard 1974b:318). In addition to the inflection shown in (2) for the inanimate stem -sit- ‘foot’, certain noun stems must also be followed by the POSSESSED THEME SUFFIX -em (Bloomfield 1946:95).

(2) Possessed noun (Bloomfield 1946:95–6; Pentland 1999:227-8)

<table>
<thead>
<tr>
<th>PFX</th>
<th>STEM</th>
<th>INNER</th>
<th>OUTER</th>
</tr>
</thead>
<tbody>
<tr>
<td>X</td>
<td>me-</td>
<td>-sit-</td>
<td>-i/-ari</td>
</tr>
<tr>
<td>X</td>
<td>ne-</td>
<td>-sit-</td>
<td>-i/-ari</td>
</tr>
<tr>
<td>1s</td>
<td>ke-</td>
<td>-sit-</td>
<td>-i/-ari</td>
</tr>
<tr>
<td>2s</td>
<td>we-</td>
<td>-sit-</td>
<td>-i/-ari</td>
</tr>
<tr>
<td>1p</td>
<td>ne-</td>
<td>-sit-</td>
<td>-i/-ari</td>
</tr>
<tr>
<td>21p</td>
<td>ke-</td>
<td>-sit-</td>
<td>-i/-ari</td>
</tr>
<tr>
<td>2p</td>
<td>ke-</td>
<td>-sit-</td>
<td>-i/-ari</td>
</tr>
<tr>
<td>3p</td>
<td>we-</td>
<td>-sit-</td>
<td>-i/-ari</td>
</tr>
</tbody>
</table>

(ALLOMORPHY: -sit- → -sič- before -i)

2 Conjugate verb inflection

The conjugate-order verb inflection canonically occurs in subordinate clauses. The final slot of the conjugate verb template contains a MODE SIGN such as indicative -i (‘that/when...’), iterative -iri (‘whenever...’), or subjunctive -e· (‘when/if...’) (Bloomfield 1946:100–01). I use subjunctive -e· throughout the tables below; the glosses accordingly begin with ‘if’.

---

7 Bloomfield reconstructed the iterative and subjunctive mode signs as -ini and -e· respectively, but later work has refined the reconstructions as -iri (Hockett 1950:280; Goddard 1980:150) and -e· (Proulx 1980a:12).
The conjunct inflection for intransitive verbs is shown in (3) for the AI stem *pankiḥšin- ‘fall (animate)’ and the II stem *pankiḥθen- ‘fall (inanimate)’ (Hewson 1993:149). For the 3p form, some languages reflect \( t + wa\cdot w \) while others reflect \( wa\cdot w + t \); Goddard (1979b:98) suggests that the PA 3p form was “probably” \( t + wa\cdot w \), as shown in (3). However, Proulx (1984c:407–8; 2003:214–15) argues that, in fact, neither 3p form goes back to PA—instead, he suggests that the \( t + wa\cdot w \) and \( wa\cdot w + t \) forms consist of the original 3rd-person conjunct suffix \(-t\) plus a later analogical extension of the 3p independent-order suffix \(-wa\cdot w\).

(3) **AI/II conjunct** (Bloomfield 1946:101; Proulx 1990:115)

<table>
<thead>
<tr>
<th>STEM</th>
<th>AGR</th>
<th>MODE</th>
</tr>
</thead>
<tbody>
<tr>
<td>1s</td>
<td><em>pankiḥšin-</em></td>
<td>(-a\cdot n)</td>
</tr>
<tr>
<td></td>
<td>fall (AI)</td>
<td>(1s)</td>
</tr>
<tr>
<td>2s</td>
<td><em>pankiḥšin-</em></td>
<td>(-a\cdot n)</td>
</tr>
<tr>
<td></td>
<td>fall (AI)</td>
<td>(2s)</td>
</tr>
<tr>
<td>1p</td>
<td><em>pankiḥšin-</em></td>
<td>(-a\cdot nk)</td>
</tr>
<tr>
<td></td>
<td>fall (AI)</td>
<td>(1p)</td>
</tr>
<tr>
<td>21p</td>
<td><em>pankiḥšin-</em></td>
<td>(-a\cdot nk)</td>
</tr>
<tr>
<td></td>
<td>fall (AI)</td>
<td>(21p)</td>
</tr>
<tr>
<td>2p</td>
<td><em>pankiḥšin-</em></td>
<td>(-a\cdot nk)</td>
</tr>
<tr>
<td></td>
<td>fall (AI)</td>
<td>(2p)</td>
</tr>
<tr>
<td>3s</td>
<td><em>pankiḥšin-</em></td>
<td>(-t\sim k)</td>
</tr>
<tr>
<td></td>
<td>fall (AI)</td>
<td>(3)</td>
</tr>
<tr>
<td>3p</td>
<td><em>pankiḥšin-</em></td>
<td>(-t\sim k + wa\cdot w)</td>
</tr>
<tr>
<td></td>
<td>fall (AI)</td>
<td>(3) (3p)</td>
</tr>
<tr>
<td>0</td>
<td><em>pankiḥθen-</em></td>
<td>(-k)</td>
</tr>
<tr>
<td></td>
<td>fall (II)</td>
<td>(0)</td>
</tr>
</tbody>
</table>

(ALLOMORPHY: 3s/3p \(-t\sim k\) after consonant-final stem (Bloomfield 1946:102))

The TI conjunct inflection is shown in (4) for the TI stem *wa-pant- ‘see it’ (Hewson 1993:203). Number of the inanimate object is not marked (Bloomfield 1946:102). I have replaced Bloomfield’s 3p form \(-amowat\) (TI theme \(-am\) + 3p \(-wa\cdot w\) + 3rd-person \(-t\sim k\)) with the form \(-ankwa\cdot w\) (TI theme \(-am\) + 3rd-person \(-t\sim k\) + 3p \(-wa\cdot w\)) to reflect the same \( t + wa\cdot w \) order that was reconstructed for the AI 3p form in (3) above (David Pentland, p.c.).
(4) **TI conjunct** (Bloomfield 1946:102; Proulx 1990:115)

<table>
<thead>
<tr>
<th>STEM</th>
<th>T.S.</th>
<th>AGR</th>
<th>MODE</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>1s—0</td>
<td>wa-pant-</td>
<td>-am</td>
<td>-a-n</td>
<td>-e-</td>
</tr>
<tr>
<td></td>
<td></td>
<td>0obj</td>
<td>1s</td>
<td>sjv</td>
</tr>
<tr>
<td>2s—0</td>
<td>wa-pant-</td>
<td>-am</td>
<td>-an</td>
<td>-e-</td>
</tr>
<tr>
<td></td>
<td></td>
<td>0obj</td>
<td>2s</td>
<td>sjv</td>
</tr>
<tr>
<td>1p—0</td>
<td>wa-pant-</td>
<td>-am</td>
<td>-a-nk</td>
<td>-e-</td>
</tr>
<tr>
<td></td>
<td></td>
<td>0obj</td>
<td>1p</td>
<td>sjv</td>
</tr>
<tr>
<td>21p—0</td>
<td>wa-pant-</td>
<td>-am</td>
<td>-ankw</td>
<td>-e-</td>
</tr>
<tr>
<td></td>
<td></td>
<td>0obj</td>
<td>21p</td>
<td>sjv</td>
</tr>
<tr>
<td>2p—0</td>
<td>wa-pant-</td>
<td>-am</td>
<td>-e-kw</td>
<td>-e-</td>
</tr>
<tr>
<td></td>
<td></td>
<td>0obj</td>
<td>2p</td>
<td>sjv</td>
</tr>
<tr>
<td>3s—0</td>
<td>wa-pant-</td>
<td>-an</td>
<td>-k</td>
<td>-e-</td>
</tr>
<tr>
<td></td>
<td></td>
<td>0obj</td>
<td>3</td>
<td>sjv</td>
</tr>
<tr>
<td>3p—0</td>
<td>wa-pant-</td>
<td>-an</td>
<td>-k + wa-w</td>
<td>-e-</td>
</tr>
<tr>
<td></td>
<td></td>
<td>0obj</td>
<td>3</td>
<td>sjv</td>
</tr>
</tbody>
</table>

(ALLOMORPHY: TI theme sign -am → -an when followed by a consonant)

For ease of presentation, I will divide the TA conjunct paradigm according to the person of the object. The forms for 1st-person objects are shown in (5) for the TA stem wa-pam- ‘see him/her’ (Hewson 1993:202). The -y- that occurs between the theme sign and the vowel-initial agreement suffixes is epenthetic. Most of the agreement suffixes are shared with the intransitive forms in (4) above, but the suffix -ament in the 3s—1p form must be analyzed as a portmanteau, as it matches neither the 3s suffix -t nor the 1p suffix -a-nk in (4).

(5) **TA conjunct, 1st-person object** (Bloomfield 1946:102; Proulx 1990:115–16)

<table>
<thead>
<tr>
<th>STEM</th>
<th>T.S.</th>
<th>AGR</th>
<th>MODE</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>3s—1s</td>
<td>wa-pam-</td>
<td>-i</td>
<td>-t</td>
<td>-e.</td>
</tr>
<tr>
<td></td>
<td>see (TA)</td>
<td>1obj</td>
<td>3</td>
<td>sjv</td>
</tr>
<tr>
<td>3s—1p</td>
<td>wa-pam-</td>
<td>-iy</td>
<td>-ament</td>
<td>-e.</td>
</tr>
<tr>
<td></td>
<td>see (TA)</td>
<td>1obj</td>
<td>3—1p</td>
<td>sjv</td>
</tr>
<tr>
<td>2s—1s</td>
<td>wa-pam-</td>
<td>-iy</td>
<td>-an</td>
<td>-e.</td>
</tr>
<tr>
<td></td>
<td>see (TA)</td>
<td>1obj</td>
<td>2s</td>
<td>sjv</td>
</tr>
<tr>
<td>2p—1s</td>
<td>wa-pam-</td>
<td>-iy</td>
<td>-e-kw</td>
<td>-e.</td>
</tr>
<tr>
<td></td>
<td>see (TA)</td>
<td>1obj</td>
<td>2p</td>
<td>sjv</td>
</tr>
<tr>
<td>2s/p—1p</td>
<td>wa-pam-</td>
<td>-iy</td>
<td>-a-nk</td>
<td>-e.</td>
</tr>
<tr>
<td></td>
<td>see (TA)</td>
<td>1obj</td>
<td>1p</td>
<td>sjv</td>
</tr>
</tbody>
</table>
The TA conjunct forms for 2nd-person objects are shown in (6).

(6) TA conjunct, 2nd-person object (Bloomfield 1946:102; Proulx 1990:115–16).

<table>
<thead>
<tr>
<th>STEM</th>
<th>T.S.</th>
<th>AGR</th>
<th>MODE</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>3s—2s</td>
<td>wa-pam-</td>
<td>-eθ</td>
<td>-k</td>
<td>-e·</td>
</tr>
<tr>
<td>see (TA)</td>
<td>2oBJ</td>
<td>3</td>
<td>sjv</td>
<td></td>
</tr>
<tr>
<td>3s—2p</td>
<td>wa-pam-</td>
<td>-eθ</td>
<td>-a-kw</td>
<td>-e·</td>
</tr>
<tr>
<td>see (TA)</td>
<td>2oBJ</td>
<td>3s—2p</td>
<td>sjv</td>
<td></td>
</tr>
<tr>
<td>3s—21p</td>
<td>wa-pam-</td>
<td>-eθ</td>
<td>-ankw</td>
<td>-e·</td>
</tr>
<tr>
<td>see (TA)</td>
<td>2oBJ</td>
<td>21p</td>
<td>sjv</td>
<td></td>
</tr>
<tr>
<td>1s—2s</td>
<td>wa-pam-</td>
<td>-eθ</td>
<td>-a-n</td>
<td>-e·</td>
</tr>
<tr>
<td>see (TA)</td>
<td>2oBJ</td>
<td>1s</td>
<td>sjv</td>
<td></td>
</tr>
<tr>
<td>1s—2p</td>
<td>wa-pam-</td>
<td>-eθ</td>
<td>-akokw</td>
<td>-e·</td>
</tr>
<tr>
<td>see (TA)</td>
<td>2oBJ</td>
<td>1s—2p</td>
<td>sjv</td>
<td></td>
</tr>
<tr>
<td>1p—2s/p</td>
<td>wa-pam-</td>
<td>-eθ</td>
<td>-a-nk</td>
<td>-e·</td>
</tr>
<tr>
<td>see (TA)</td>
<td>2oBJ</td>
<td>1p</td>
<td>sjv</td>
<td></td>
</tr>
<tr>
<td>3s—4</td>
<td>wa-pam-</td>
<td>-a·</td>
<td>-t</td>
<td>-e·</td>
</tr>
<tr>
<td>see (TA)</td>
<td>3/4oBJ</td>
<td>3</td>
<td>sjv</td>
<td></td>
</tr>
<tr>
<td>4—3s</td>
<td>wa-pam-</td>
<td>-ekw</td>
<td>-et</td>
<td>-e·</td>
</tr>
<tr>
<td>see (TA)</td>
<td>3/4oBJ</td>
<td>3</td>
<td>sjv</td>
<td></td>
</tr>
</tbody>
</table>

The TA conjunct forms for non-local objects are shown in (7). As discussed in Chapter 2 (§2.6.3.2), the 1—3 and 2—3 forms contain a null allomorph of the 3/4 theme sign -a· due to the following vowel-initial agreement suffix. The theme sign -a· can be restored in these forms by inserting the negative suffix -w before the agreement suffix.

(7) TA conjunct, non-local object (3 or 4)

<table>
<thead>
<tr>
<th>STEM</th>
<th>T.S.</th>
<th>AGR</th>
<th>MODE</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1s—3s</td>
<td>wa-pam-</td>
<td>Ø</td>
<td>(-a·)</td>
<td>-ak</td>
</tr>
<tr>
<td>see (TA)</td>
<td>3/4oBJ</td>
<td>1s—3s</td>
<td>sjv</td>
<td></td>
</tr>
<tr>
<td>1p—3s</td>
<td>wa-pam-</td>
<td>Ø</td>
<td>(-a·)</td>
<td>-akent</td>
</tr>
<tr>
<td>see (TA)</td>
<td>3/4oBJ</td>
<td>1p—3s</td>
<td>sjv</td>
<td></td>
</tr>
<tr>
<td>21p—3s</td>
<td>wa-pam-</td>
<td>Ø</td>
<td>(-a·)</td>
<td>-ankw</td>
</tr>
<tr>
<td>see (TA)</td>
<td>3/4oBJ</td>
<td>21p</td>
<td>sjv</td>
<td></td>
</tr>
<tr>
<td>2s—3s</td>
<td>wa-pam-</td>
<td>Ø</td>
<td>(-a·)</td>
<td>-at</td>
</tr>
<tr>
<td>see (TA)</td>
<td>3/4oBJ</td>
<td>2s—3s</td>
<td>sjv</td>
<td></td>
</tr>
<tr>
<td>2p—3s</td>
<td>wa-pam-</td>
<td>Ø</td>
<td>(-a·)</td>
<td>-e-kw</td>
</tr>
<tr>
<td>see (TA)</td>
<td>3/4oBJ</td>
<td>2p</td>
<td>sjv</td>
<td></td>
</tr>
<tr>
<td>3s—4</td>
<td>wa-pam-</td>
<td>-a·</td>
<td>-t</td>
<td>-e·</td>
</tr>
<tr>
<td>see (TA)</td>
<td>3/4oBJ</td>
<td>3</td>
<td>sjv</td>
<td></td>
</tr>
<tr>
<td>4—3s</td>
<td>wa-pam-</td>
<td>-ekw</td>
<td>-et</td>
<td>-e·</td>
</tr>
<tr>
<td>see (TA)</td>
<td>3/4oBJ</td>
<td>3</td>
<td>sjv</td>
<td></td>
</tr>
</tbody>
</table>
The TA conjunct paradigm also contains a set of **INANIMATE-ACTOR** forms, which occur when the verb has an inanimate subject and an animate object. As noted in the table, most of the forms are in fact the same as the third-person-subject forms in (6) and (7) above. Only the forms for first-person objects are distinct, containing the suffixes -k (0—1s) and -amenk (0—1p) in place of the suffixes -t (3—1s) and -ament (3—1p) that occur in (5) above.

(8) **TA conjunct inanimate-actor forms (Goddard 1979a:88)**

<table>
<thead>
<tr>
<th>STEM</th>
<th>T.S.</th>
<th>AGR</th>
<th>MODE</th>
</tr>
</thead>
<tbody>
<tr>
<td>0—1s</td>
<td>wa-pam-see (TA)</td>
<td>-i</td>
<td>-k</td>
</tr>
<tr>
<td>0—1p</td>
<td>wa-pam-see (TA)</td>
<td>-iy</td>
<td>-amenk</td>
</tr>
<tr>
<td>0—21p</td>
<td>wa-pam-see (TA)</td>
<td>-eθ</td>
<td>-ankw</td>
</tr>
<tr>
<td>0—2s</td>
<td>wa-pam-see (TA)</td>
<td>-eθ</td>
<td>-k</td>
</tr>
<tr>
<td>0—2p</td>
<td>wa-pam-see (TA)</td>
<td>-eθ</td>
<td>-a·kw</td>
</tr>
<tr>
<td>0—3s</td>
<td>wa-pam-see (TA)</td>
<td>ekw</td>
<td>-et</td>
</tr>
</tbody>
</table>

Finally, the conjunct order also contains a set of **UNSPECIFIED-ACTOR** forms, also known as **INDEFINITE-ACTOR** forms (Goddard 1979a:88). Such forms exist for AI, TI, and TA verbs, as indicated in (9). The transitive unspecified-actor forms are passive-like and it is convenient to translate them using English passives, although I argue in Chapter 5 that their syntactic representation does include an agent argument (notated as “X”).
Appendix

(9) Conjunct unspecified actor forms (Bloomfield 1946:101–2; Goddard 1979a:88; Proulx 1990:115)

<table>
<thead>
<tr>
<th>STEM</th>
<th>T.S.</th>
<th>PSSV</th>
<th>AGR</th>
<th>MODE</th>
</tr>
</thead>
<tbody>
<tr>
<td>X (AI)</td>
<td>nepa-</td>
<td>-n</td>
<td>-k</td>
<td>-e. X</td>
</tr>
<tr>
<td></td>
<td>sleep (AI)</td>
<td>pssv</td>
<td>sjv</td>
<td>‘if there is sleeping’</td>
</tr>
<tr>
<td>X—0 (TI)</td>
<td>wa-pant-</td>
<td>-en</td>
<td>-k</td>
<td>-e. sjv</td>
</tr>
<tr>
<td></td>
<td>see (TI)</td>
<td>pssv</td>
<td>X/0</td>
<td>‘if it is seen’</td>
</tr>
<tr>
<td>X—1s (TA)</td>
<td>wa-pam-</td>
<td>-n</td>
<td>-k</td>
<td>-e. sjv</td>
</tr>
<tr>
<td></td>
<td>see (TA)</td>
<td>pssv</td>
<td>X</td>
<td>‘if I am seen’</td>
</tr>
<tr>
<td>X—1p (TA)</td>
<td>wa-pam-</td>
<td>-n</td>
<td>amenk</td>
<td>-e. sjv</td>
</tr>
<tr>
<td></td>
<td>see (TA)</td>
<td>pssv</td>
<td>X—1p</td>
<td>‘if we (excl.) are seen’</td>
</tr>
<tr>
<td>X—21p (TA)</td>
<td>wa-pam-</td>
<td>-en</td>
<td>ankw</td>
<td>-e. sjv</td>
</tr>
<tr>
<td></td>
<td>see (TA)</td>
<td>pssv</td>
<td>X—1p</td>
<td>‘if we (incl.) are seen’</td>
</tr>
<tr>
<td>X—2s (TA)</td>
<td>wa-pam-</td>
<td>-en</td>
<td>-k</td>
<td>-e. sjv</td>
</tr>
<tr>
<td></td>
<td>see (TA)</td>
<td>pssv</td>
<td>X</td>
<td>‘if you (sg.) are seen’</td>
</tr>
<tr>
<td>X—2p (TA)</td>
<td>wa-pam-</td>
<td>-en</td>
<td>-a-kw</td>
<td>-e. sjv</td>
</tr>
<tr>
<td></td>
<td>see (TA)</td>
<td>pssv</td>
<td>X—2p</td>
<td>‘if you (pl.) are seen’</td>
</tr>
<tr>
<td>X—3s (TA)</td>
<td>wa-pam-Ø (-a-)</td>
<td>-en</td>
<td>-t</td>
<td>-e. sjv</td>
</tr>
<tr>
<td></td>
<td>see (TA)</td>
<td>pssv</td>
<td>3</td>
<td>‘if s/he is seen’</td>
</tr>
</tbody>
</table>

3 Independent verb inflection

Goddard (1967, 2007) divides the independent-order forms into two sets: OBJECTIVE and ABSOLUTE. In addition to the theme sign (if one is present), objective forms contain two agreement slots, which index two distinct arguments: (1) the prefix/inner suffix slot, which indexes the higher-ranked argument and can agree with any person (1st, 2nd, 3rd), and (2) the outer suffix slot, which indexes the lower-ranked argument and can agree only with 3rd persons. Absolute forms, on the other hand, contain only a single agreement slot, so only a single argument is normally indexed; the prefix/inner suffix slot is used when the indexed argument is 1st/2nd-person and the outer suffix slot is used when it is 3rd-person.⁸

All independent-order forms include a “formative” morpheme whose form correlates with the status of the argument indexed by the outer suffix (Goddard 2007:264). The conditioning of the formative is described in (10). This description involves the Algonquianist distinction between “primary” and “secondary” objects. A primary object is the object of a monotransitive TA/TI verb or the goal of a ditransitive TA+O verb; a secondary object is the object of an AI+O verb or the theme of a TA+O verb.

⁸The one exception to the preceding description is transitive you-and-me forms, in which both arguments are 1st/2nd person. In such cases, both arguments are indexed by the prefix/inner suffix slot.
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<table>
<thead>
<tr>
<th>FTV</th>
<th>CONDITIONING</th>
</tr>
</thead>
</table>
| -ehm | no outer suffix appears  
(occurs when the only arguments indexed by agreement are 1st/2nd person) |
| -w' | outer suffix indexes the higher-ranked 3rd-person argument  
(subject of intransitive, subject of direct transitive, primary object of inverse transitive) |
| -w | outer suffix indexes a lower-ranked animate 3rd-person argument  
(primary animate object of direct transitive, animate subject of inverse transitive) |
| -en(e∙) | outer suffix indexes some other 3rd-person argument:  
(1) outer suffix indexes a lower-ranked inanimate argument  
(primary inanimate object of transitive, inanimate subject of inverse transitive)  
(2) outer suffix indexes any secondary object  
(object of AI+O or TA+O verb) |

The formatives -w’ and -w are both phonemically /w/ but are distinguished morphophonologically: -w’ triggers umlaut of a preceding -a· to -e· while -w does not (Goddard 2007). I will mark “umlauting -w” using Pentland’s (1999:240) notation -w’ rather than Goddard’s (2007:232) notation -w_m, although I take no position on whether the -w’ morpheme was indeed a glottalized -w in Pre-PA, as Pentland’s notation is intended to indicate.

In Plains Cree, all of the above formatives are replaced by a different formative -htay in the preterit, which Goddard (2007:263) takes as an archaism that reflects a PA formative -entay (see §6.4.1). The occurrence of preterit marking in the formative slot suggests that the formative originally functioned as a tense marker, with -entay marking preterit forms and the array of formatives in (10) occurring elsewhere. The elsewhere forms in (10) have the secondary function of marking agreement with whichever argument the outer suffix indexes. This agreement function has become primary in the daughter languages other than Cree, since none of the other languages retain the distinction between preterit -entay and non-preterit -ehm/-w’/-w/-en(e∙) (see §7.3.2.6). For simplicity, I will gloss the PA preterit formative -entay as PAST and the non-preterit formatives in (10) as PRES, although the characterization of the non-preterit formatives as PRES is not entirely accurate, since they can co-occur with various types of tense/aspect/mood marking in other morphological slots, such as the auxiliary-like preverbs.10 Strictly speaking, then, the non-preterit formatives are better understood as elsewhere forms of T⁰ rather than explicit present-tense markers.

---


10 I thank David Pentland (p.c.) for reminding me of this point.
For intransitive verbs (AI/II), which take only a single argument, the objective inflection is not normally applicable and only the absolute forms in (11) occur. In these forms, a strikeout (e.g. \(-e_{hm}\)) indicates material that can be internally reconstructed for Pre-PA but had been lost due to word-final deletion by the time of PA proper; the remaining \(-e\) also deletes when it is preceded by a vowel, but is retained after a consonant.

\[(11) \text{ AI/II independent absolute (Goddard 2007:265)}\]

<table>
<thead>
<tr>
<th>PFX</th>
<th>STEM</th>
<th>FTV</th>
<th>INNER</th>
<th>OUTER</th>
</tr>
</thead>
<tbody>
<tr>
<td>1s</td>
<td>ne-</td>
<td>pankihšin-</td>
<td>-ehm</td>
<td>—</td>
</tr>
<tr>
<td></td>
<td></td>
<td>fall (AI)</td>
<td>.pres.1/2</td>
<td></td>
</tr>
<tr>
<td>2s</td>
<td>ke-</td>
<td>pankihšin-</td>
<td>-ehm</td>
<td>—</td>
</tr>
<tr>
<td></td>
<td></td>
<td>fall (AI)</td>
<td>.pres.1/2</td>
<td></td>
</tr>
<tr>
<td>1p</td>
<td>ne-</td>
<td>pankihšin-</td>
<td>-en-</td>
<td>1p</td>
</tr>
<tr>
<td></td>
<td></td>
<td>fall (AI)</td>
<td>1p</td>
<td></td>
</tr>
<tr>
<td>21p</td>
<td>ke-</td>
<td>pankihšin-</td>
<td>-en-</td>
<td>21p</td>
</tr>
<tr>
<td></td>
<td></td>
<td>fall (AI)</td>
<td>21p</td>
<td></td>
</tr>
<tr>
<td>2p</td>
<td>ke-</td>
<td>pankihšin-</td>
<td>-wa-</td>
<td>2p</td>
</tr>
<tr>
<td></td>
<td></td>
<td>fall (AI)</td>
<td>2p</td>
<td></td>
</tr>
<tr>
<td>3s</td>
<td>—</td>
<td>pankihšin-</td>
<td>-w’</td>
<td>—</td>
</tr>
<tr>
<td></td>
<td></td>
<td>fall (AI)</td>
<td>.pres.3</td>
<td></td>
</tr>
<tr>
<td>3p</td>
<td>—</td>
<td>pankihšin-</td>
<td>-w’</td>
<td>—</td>
</tr>
<tr>
<td></td>
<td></td>
<td>fall (AI)</td>
<td>.pres.3</td>
<td></td>
</tr>
<tr>
<td>0s</td>
<td>—</td>
<td>pankihθen-</td>
<td>-w’</td>
<td>—</td>
</tr>
<tr>
<td></td>
<td></td>
<td>fall (II)</td>
<td>.pres.3</td>
<td></td>
</tr>
<tr>
<td>0p</td>
<td>—</td>
<td>pankihθen-</td>
<td>-w’</td>
<td>—</td>
</tr>
<tr>
<td></td>
<td></td>
<td>fall (II)</td>
<td>.pres.3</td>
<td></td>
</tr>
</tbody>
</table>

\[\text{(ALLOMORPHY: after a consonant, } -w’ + -aC \rightarrow -o\cdot C \text{ (Goddard 2007:265))}\]

Although true intransitive verbs have only one argument and thus use absolute inflection, the “pseudo-transitive” AI+O verbs (§4.6.4) take two arguments and are thus candidates for objective inflection. Goddard (1974b, 2007) proposes that the choice between absolute and objective forms depends on the definiteness of the object. When the object is definite, the objective AI+O forms in (12) occur. When the object is indefinite, the absolute AI inflection in (11) above, which does not index the object, is used instead. In the objective forms shown in (12), the AI+O object is inanimate, but it is possible for the object to be animate as well (Goddard 2007:264), in which case an animate outer suffix from (1) above would be used.
(12) AI+O independent objective (used with definite objects)
(Pentland 1999:258, modified for consistency with Goddard's (2007:266) TI objective paradigm)

<table>
<thead>
<tr>
<th>PFX</th>
<th>STEM</th>
<th>FTV</th>
<th>INNER</th>
<th>OUTER</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1s—0s/p</td>
<td>ne-1 kemo-t-steal (AI+O)</td>
<td>-en</td>
<td>—</td>
<td>-i / -ari</td>
<td>'I steal it/them'</td>
</tr>
<tr>
<td>2s—0s/p</td>
<td>ke-2 kemo-t-steal (AI+O)</td>
<td>-en</td>
<td>—</td>
<td>-i / -ari</td>
<td>'you (sg.) steal it/them'</td>
</tr>
<tr>
<td>3s—0s/p</td>
<td>we-3 kemo-t-steal (AI+O)</td>
<td>-en</td>
<td>—</td>
<td>-i / -ari</td>
<td>'s/he steals it/them'</td>
</tr>
<tr>
<td>1p—0s/p</td>
<td>ne-1 kemo-t-steal (AI+O)</td>
<td>-ene</td>
<td>-na-n</td>
<td>-i / -ari</td>
<td>'we (excl.) steal it/them'</td>
</tr>
<tr>
<td>21p—0s/p</td>
<td>ke-2 kemo-t-steal (AI+O)</td>
<td>-ene</td>
<td>-naw</td>
<td>-i / -ari</td>
<td>'we (incl.) steal it/them'</td>
</tr>
<tr>
<td>2p—0s/p</td>
<td>ke-2 kemo-t-steal (AI+O)</td>
<td>-ene</td>
<td>-wa-w</td>
<td>-i / -ari</td>
<td>'you (pl.) steal it/them'</td>
</tr>
<tr>
<td>3p—0s/p</td>
<td>we-3 kemo-t-steal (AI+O)</td>
<td>-ene</td>
<td>-wa-w</td>
<td>-i / -ari</td>
<td>'they steal it/them'</td>
</tr>
</tbody>
</table>

Turning to transitive verbs, the absolute and objective inflection for TI verbs is shown in (13) and (14). As mentioned for AI+O verbs above, it appears that absolute inflection occurred with indefinite objects while objective inflection occurred with definite objects (Goddard 1974b, 2007; Pentland 1999:229).

(13) TI independent absolute (Goddard 2007:266)

<table>
<thead>
<tr>
<th>PFX</th>
<th>STEM</th>
<th>T.S.</th>
<th>FTV</th>
<th>INNER</th>
<th>OUTER</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1s(—0)</td>
<td>ne-1</td>
<td>wa-pant-see (tr)</td>
<td>-e·hm</td>
<td>—</td>
<td>—</td>
<td>'I see a thing/things'</td>
</tr>
<tr>
<td>2s(—0)</td>
<td>ke-2</td>
<td>wa-pant-see (tr)</td>
<td>-e·hm</td>
<td>—</td>
<td>—</td>
<td>'you (sg.) see a thing/things'</td>
</tr>
<tr>
<td>1p(—0)</td>
<td>ne-1</td>
<td>wa-pant-see (tr)</td>
<td>-e·hm</td>
<td>-ena</td>
<td>1p</td>
<td>'we (excl.) see a thing/things'</td>
</tr>
<tr>
<td>21p(—0)</td>
<td>ke-2</td>
<td>wa-pant-see (tr)</td>
<td>-e·hm</td>
<td>-ena</td>
<td>21p</td>
<td>'we (incl.) see a thing/things'</td>
</tr>
<tr>
<td>2p(—0)</td>
<td>ke-2</td>
<td>wa-pant-see (tr)</td>
<td>-e·hm</td>
<td>-wa-w</td>
<td>2p</td>
<td>'you (pl.) see a thing/things'</td>
</tr>
<tr>
<td>3s(—0)</td>
<td>—</td>
<td>wa-pant-see (tr)</td>
<td>-am-w</td>
<td>—</td>
<td>-a</td>
<td>'s/he sees a thing/things'</td>
</tr>
<tr>
<td>3p(—0)</td>
<td>—</td>
<td>wa-pant-see (tr)</td>
<td>-am-w</td>
<td>—</td>
<td>-aki</td>
<td>'they see a thing/things'</td>
</tr>
</tbody>
</table>

(AlloMORphy: in the 3p form, -w’ + -aki → -o·ki (Goddard 2007:266))
Note that the inflection of the TI forms differs from that of the AI forms only in the presence of the TI theme sign; the remainder of the inflection is the same in both classes.

In addition to the TI forms, which occur when the subject is animate and the object is inanimate, there is also a set of forms that occur in the opposite situation, when the subject is inanimate and the object is animate. Conceptually we might think of these INANIMATE-ACTOR forms as “TI inverse” forms, but they contain TA finals and theme signs and are thus classified as TA forms. The absolute forms in (15) are used when the inanimate subject is indefinite; the objective forms in (16) are used when the inanimate subject is definite. The inverse theme sign -ekw occurs throughout both paradigms.
We now turn to the independent-order TA forms with animate actors, which are presented in the following order: first the direct forms (with theme sign -a∙, which I analyze as a 3rd-person object marker; §2.6), then the inverse forms (with theme sign -ekw), and finally the you-and-me forms (with theme signs -i and -eθ).
The inflection for TA direct forms is shown in (17) and (18). The absolute forms in (17) occur when the object is indefinite; the indefinite object is glossed here as ‘someone’, but it could in fact be either singular or plural, as its number is not indexed on the verb. The objective forms in (18) occur when the object is definite.

(17) TA independent direct forms, absolute (Goddard 2007:265–6)

<table>
<thead>
<tr>
<th>PFX</th>
<th>STEM</th>
<th>T.S.</th>
<th>FTV</th>
<th>INNER</th>
<th>OUTER</th>
</tr>
</thead>
<tbody>
<tr>
<td>1s(-3)</td>
<td>ne-1 wa-pam-1 -a- -hm</td>
<td>3/4obj</td>
<td>pres.1/2</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>2s(-3)</td>
<td>ke-2 wa-pam-2 -a- -hm</td>
<td>3/4obj</td>
<td>pres.1/2</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>1p(-3)</td>
<td>ne-1 wa-pam-1 -a- -hm</td>
<td>3/4obj</td>
<td>pres.1/2</td>
<td>-ena</td>
<td>1p</td>
</tr>
<tr>
<td>21p(-3)</td>
<td>ke-2 wa-pam-2 -a- -hm</td>
<td>3/4obj</td>
<td>pres.1/2</td>
<td>-ena</td>
<td>21p</td>
</tr>
<tr>
<td>2p(-3)</td>
<td>ke-2 wa-pam-2 -a- -hm</td>
<td>3/4obj</td>
<td>pres.1/2</td>
<td>-wa-</td>
<td>2p</td>
</tr>
<tr>
<td>3s(-4)</td>
<td>— wa-pam-3 -e- -w’</td>
<td>3/4obj</td>
<td>pres.3</td>
<td>—</td>
<td>-a</td>
</tr>
<tr>
<td>3p(-4)</td>
<td>— wa-pam-3 -e- -w’</td>
<td>3/4obj</td>
<td>pres.3</td>
<td>—</td>
<td>-aki</td>
</tr>
</tbody>
</table>

(18) TA independent direct forms, objective (Goddard 2007:265–6)

<table>
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<th>INNER</th>
<th>OUTER</th>
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</thead>
<tbody>
<tr>
<td>1s—3s/p</td>
<td>ne-1 wa-pam-1 -a- -w</td>
<td>3/4obj</td>
<td>pres.3</td>
<td>—</td>
<td>-a / -aki</td>
</tr>
<tr>
<td>2s—3s/p</td>
<td>ke-2 wa-pam-2 -a- -w</td>
<td>3/4obj</td>
<td>pres.3</td>
<td>—</td>
<td>-a / -aki</td>
</tr>
<tr>
<td>3s—4s/p</td>
<td>we-3 wa-pam-3 -a- -w</td>
<td>3/4obj</td>
<td>pres.4</td>
<td>—</td>
<td>-ari / -ahi</td>
</tr>
<tr>
<td>1p—3s/p</td>
<td>ne-1 wa-pam-1 -a- -w -ena-n</td>
<td>3/4obj</td>
<td>pres.3</td>
<td>1p</td>
<td>-a / -aki</td>
</tr>
<tr>
<td>21p—3s/p</td>
<td>ke-2 wa-pam-2 -a- -w -enaw</td>
<td>3/4obj</td>
<td>pres.3</td>
<td>21p</td>
<td>-a / -aki</td>
</tr>
<tr>
<td>2p—3s/p</td>
<td>ke-2 wa-pam-2 -a- -w -wa-w</td>
<td>3/4obj</td>
<td>pres.3</td>
<td>2p</td>
<td>-a / -aki</td>
</tr>
<tr>
<td>3p—4s/p</td>
<td>we-3 wa-pam-3 -a- -w -wa-w</td>
<td>3/4obj</td>
<td>pres.4</td>
<td>3p</td>
<td>-ari / -ahi</td>
</tr>
</tbody>
</table>
The absolute and objective inflection for TA inverse forms is shown in (19) and (20). The absolute forms occur when the subject is indefinite; the objective forms occur when the subject is definite. The entire absolute inverse paradigm in (19) is the same as the inanimate-actor paradigm in (15); the forms prefixed with a question mark in (19) are reconstructed for the inverse paradigm by Pentland (1999:259), but Goddard (2007:267) states that they should in fact only be reconstructed for the inanimate-actor paradigm.

(19) TA independent inverse forms, absolute (Pentland 1999:259; Goddard 1967:94)

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<th>OUTER</th>
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</thead>
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<tr>
<td>?(3—)1s</td>
<td>ne-</td>
<td>wa-pam-</td>
<td>-ekw</td>
<td>-ehm</td>
<td>—</td>
</tr>
<tr>
<td></td>
<td>see (TA)</td>
<td>INV</td>
<td>PRES.1/2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>?(3—)2s</td>
<td>ke-</td>
<td>wa-pam-</td>
<td>-ekw</td>
<td>-ehm</td>
<td>—</td>
</tr>
<tr>
<td></td>
<td>see (TA)</td>
<td>INV</td>
<td>PRES.1/2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>?(3—)1p</td>
<td>ne-</td>
<td>wa-pam-</td>
<td>-ekw</td>
<td>-ehm</td>
<td>-ena-</td>
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<tr>
<td></td>
<td>see (TA)</td>
<td>INV</td>
<td>PRES.1/2</td>
<td>1p</td>
<td></td>
</tr>
<tr>
<td>?(3—)21p</td>
<td>ke-</td>
<td>wa-pam-</td>
<td>-ekw</td>
<td>-ehm</td>
<td>-ena</td>
</tr>
<tr>
<td></td>
<td>see (TA)</td>
<td>INV</td>
<td>PRES.1/2</td>
<td>21p</td>
<td></td>
</tr>
<tr>
<td>?(3—)2p</td>
<td>ke-</td>
<td>wa-pam-</td>
<td>-ekw</td>
<td>-ehm</td>
<td>-wa-</td>
</tr>
<tr>
<td></td>
<td>see (TA)</td>
<td>INV</td>
<td>PRES.1/2</td>
<td>2p</td>
<td></td>
</tr>
<tr>
<td>(4—)3s</td>
<td>—</td>
<td>wa-pam-</td>
<td>-ekw</td>
<td>-w’</td>
<td>—</td>
</tr>
<tr>
<td></td>
<td>see (TA)</td>
<td>INV</td>
<td>PRES.3</td>
<td></td>
<td>3s</td>
</tr>
<tr>
<td>(4—)3p</td>
<td>—</td>
<td>wa-pam-</td>
<td>-ekw</td>
<td>-w’</td>
<td>—</td>
</tr>
<tr>
<td></td>
<td>see (TA)</td>
<td>INV</td>
<td>PRES.3</td>
<td></td>
<td>3p</td>
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</tbody>
</table>

(20) TA independent inverse forms, objective (Pentland 1999:260; Goddard 2007:267)

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<th>OUTER</th>
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</thead>
<tbody>
<tr>
<td>3s/p—1s</td>
<td>ne-</td>
<td>wa-pam-</td>
<td>-ekw</td>
<td>-w</td>
<td>—</td>
</tr>
<tr>
<td></td>
<td>see (TA)</td>
<td>INV</td>
<td>PRES.3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3s/p—2s</td>
<td>ke-</td>
<td>wa-pam-</td>
<td>-ekw</td>
<td>-w</td>
<td>—</td>
</tr>
<tr>
<td></td>
<td>see (TA)</td>
<td>INV</td>
<td>PRES.3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4s/p—3s</td>
<td>we-</td>
<td>wa-pam-</td>
<td>-ekw</td>
<td>-w</td>
<td>—</td>
</tr>
<tr>
<td></td>
<td>see (TA)</td>
<td>INV</td>
<td>PRES.4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3s/p—1p</td>
<td>ne-</td>
<td>wa-pam-</td>
<td>-ekw</td>
<td>-w</td>
<td>-ena-n</td>
</tr>
<tr>
<td></td>
<td>see (TA)</td>
<td>INV</td>
<td>PRES.3</td>
<td>1p</td>
<td></td>
</tr>
<tr>
<td>3s/p—21p</td>
<td>ke-</td>
<td>wa-pam-</td>
<td>-ekw</td>
<td>-enaw</td>
<td>-a / -aki</td>
</tr>
<tr>
<td></td>
<td>see (TA)</td>
<td>INV</td>
<td>PRES.3</td>
<td>21p</td>
<td></td>
</tr>
<tr>
<td>3s/p—2p</td>
<td>ke-</td>
<td>wa-pam-</td>
<td>-ekw</td>
<td>-wa-w</td>
<td>-a / -aki</td>
</tr>
<tr>
<td></td>
<td>see (TA)</td>
<td>INV</td>
<td>PRES.3</td>
<td>2p</td>
<td></td>
</tr>
<tr>
<td>4s/p—3p</td>
<td>we-</td>
<td>wa-pam-</td>
<td>-ekw</td>
<td>-wa-w</td>
<td>-ari / -ahi</td>
</tr>
<tr>
<td></td>
<td>see (TA)</td>
<td>INV</td>
<td>PRES.4</td>
<td>3p</td>
<td></td>
</tr>
</tbody>
</table>
The TA inverse reconstructions in (19) and (20) follow Goddard (2007). Pentland (1999) proposes a different reconstruction of the formatives in these two paradigms: where Goddard has -w’, Pentland has -w, and where Goddard has -w, Pentland has -w’. Under Goddard’s reconstruction, the TA inverse formatives in (19) and (20) match those of the corresponding TA direct forms in (17) and (18) above, in which the identity of the formative can be determined morphophonologically: -w’ triggers umlaut of the preceding direct theme sign -a- to -e- while -w does not. In the inverse forms in (19) and (20), however, the umlaut test is not applicable, since the formative is not preceded by a vowel, so the identity of the formative rests on more nuanced evidence; this is where Pentland and Goddard reach different conclusions. Pentland’s reconstruction is based on his analysis of -w’ and -w as subject and object markers, respectively, plus a proposed difference in the morphophonemic contraction of ekw-w’ and ekw-w sequences. Goddard (2007:231–32) argues that the morphophonemic evidence is not compelling and points out that Pentland’s reconstruction of different formatives in corresponding direct and inverse forms is inconsistent with the otherwise general principle that corresponding direct and inverse forms differ only in the choice of theme sign. I consider Goddard’s arguments convincing and have followed his reconstructions.

The TA independent you-and-me forms display a unique pattern. Although these forms have two arguments and might thus be considered suitable for objective inflection, the objective outer suffix in fact has only third-person forms due to its likely origin as a determiner (see (1) above). Since neither of the you-and-me arguments is third-person, there is no content to fill the outer suffix slot; the you-and-me forms are therefore absolute, as shown in (21).

<table>
<thead>
<tr>
<th>PFX</th>
<th>STEM</th>
<th>T.S.</th>
<th>FTV</th>
<th>INNER</th>
<th>OUTER</th>
</tr>
</thead>
<tbody>
<tr>
<td>2s—1s</td>
<td>ke-2</td>
<td>wa-pam-see (TA)</td>
<td>-i</td>
<td>-hm</td>
<td>-e</td>
</tr>
<tr>
<td>2p—1s</td>
<td>ke-2</td>
<td>wa-pam-see (TA)</td>
<td>-i</td>
<td>-hm</td>
<td>-wa-2p</td>
</tr>
<tr>
<td>2s/p–1p</td>
<td>ke-2</td>
<td>wa-pam-see (TA)</td>
<td>-i</td>
<td>-hm</td>
<td>-ena-1p</td>
</tr>
<tr>
<td>1s—2s</td>
<td>ke-2</td>
<td>wa-pam-see (TA)</td>
<td>-eθ</td>
<td>-ehm</td>
<td>-wa-2p</td>
</tr>
<tr>
<td>1s—2p</td>
<td>ke-2</td>
<td>wa-pam-see (TA)</td>
<td>-eθ</td>
<td>-ehm</td>
<td>-wa-2p</td>
</tr>
<tr>
<td>1p–2s/p</td>
<td>ke-2</td>
<td>wa-pam-see (TA)</td>
<td>-eθ</td>
<td>-ehm</td>
<td>-ena-1p</td>
</tr>
</tbody>
</table>
Note that in certain you-and-me forms—namely, the 2s/p—1p and 1p—2s/p forms—the prefix and inner suffix index different arguments. This pattern is unusual, as elsewhere in the independent order, and in the possessed-noun paradigm from which the independent order arose, the prefix and inner suffix always act together to index the same argument. From a functional perspective, the splitting apart of the prefix and inner suffix in certain you-and-me forms can be understood as creating a new agreement slot in compensation for the unavailability of the outer suffix slot in these forms.

The uniform absence of the outer suffix in TA you-and-me forms gives rise to another exceptional situation: since the two arguments of the transitive verb are fully specified without using the outer suffix, the outer suffix in fact remains available to agree with a third argument. The possibility of this additional agreement is realized in certain ditransitive “TA+O” forms: when the agent and goal of a TA+O verb are both 1st/2nd-person, a definite 3rd-person theme—which would normally not be registered on the verb—can exceptionally be indexed by the outer suffix. The resulting TA+O objective forms are shown in (22). To save space, I show only an inanimate singular theme; the theme could also be animate and/or plural.

(22) TA+O independent you-and-me, objective (Pentland 1999:260, modified per Goddard 2007:267)

<table>
<thead>
<tr>
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<th>STEM</th>
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<th>FTV</th>
<th>INNER</th>
<th>OUTER</th>
</tr>
</thead>
<tbody>
<tr>
<td>2s—1s</td>
<td><em>ke- wintamaw-</em></td>
<td>-i</td>
<td>-n</td>
<td>—</td>
<td>-i</td>
</tr>
<tr>
<td></td>
<td>name (TA+O)</td>
<td>1OBJ</td>
<td>PRES.0</td>
<td></td>
<td>0s</td>
</tr>
<tr>
<td>2p—1s</td>
<td><em>ke- wintamaw-</em></td>
<td>-i</td>
<td>-ne.</td>
<td>-wa-w</td>
<td>-i</td>
</tr>
<tr>
<td></td>
<td>name (TA+O)</td>
<td>1OBJ</td>
<td>PRES.0</td>
<td>2p</td>
<td>0s</td>
</tr>
<tr>
<td>2s/p-1p</td>
<td><em>ke- wintamaw-</em></td>
<td>-i</td>
<td>-ne.</td>
<td>-na-n</td>
<td>-i</td>
</tr>
<tr>
<td></td>
<td>name (TA+O)</td>
<td>1OBJ</td>
<td>PRES.0</td>
<td>1p</td>
<td>0s</td>
</tr>
<tr>
<td>1s—2s</td>
<td>*ke- wintamaw-</td>
<td>-eθ</td>
<td>-en</td>
<td>—</td>
<td>-i</td>
</tr>
<tr>
<td></td>
<td>name (TA+O)</td>
<td>2OBJ</td>
<td>PRES.0</td>
<td></td>
<td>0s</td>
</tr>
<tr>
<td>1s—2p</td>
<td>*ke- wintamaw-</td>
<td>-eθ</td>
<td>-ene.</td>
<td>-wa-w</td>
<td>-i</td>
</tr>
<tr>
<td></td>
<td>name (TA+O)</td>
<td>2OBJ</td>
<td>PRES.0</td>
<td>2p</td>
<td>0s</td>
</tr>
<tr>
<td>1p—2s/p</td>
<td>*ke- wintamaw-</td>
<td>-eθ</td>
<td>-ene.</td>
<td>-na-n</td>
<td>-i</td>
</tr>
<tr>
<td></td>
<td>name (TA+O)</td>
<td>2OBJ</td>
<td>PRES.0</td>
<td>1p</td>
<td>0s</td>
</tr>
</tbody>
</table>

The ability of the agreement inflection to index three arguments arises only in this one very restricted context: TA+O you-and-me forms with definite themes. It is only the exceptional indexing of both of the 1st/2nd-person arguments by the prefix/inner suffix combination that makes it possible for the outer suffix to index a third argument.
The passive-like UNSPECIFIED-ACTOR forms of the independent order are shown in (23) for the full range of verb classes. The TA forms with 1st/2nd-person objects contain the theme sign -eko-, which strongly resembles the inverse theme sign -ekw; Pentland (1999:242) suggests that it was indeed originally inverse -ekw and may have become -eko- through analogical extension of the -w formative that occurs in the 3rd-person object forms (-ekw + -w > -eko-).

The forms with 3rd-person objects, on the other hand, do not contain the inverse theme sign in any variant; instead, they have the direct theme sign -a-. The (X—)3s unspecified-actor form wa·pam·wa ‘s/he is seen’ is thus very similar to the 3s(—4) direct form wa·pame·wa ‘s/he sees someone’ in (17) above; the forms differ only in whether umlaut applies to the theme sign -a- (→ -e·). Goddard (2007) attributes this difference to a property of the following formative suffix: the -w formative in the (X—)3s form does not trigger umlaut while the -w’ formative (Goddard’s -wM) in the 3s(—4) form does.


<table>
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<th>FTV</th>
<th>INNER OUTER</th>
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<td>—</td>
<td>-hm</td>
<td>—</td>
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<tr>
<td></td>
<td>sleep (At)</td>
<td></td>
<td>pres.X</td>
<td>i (?)</td>
</tr>
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<td>ne-1</td>
<td>wa·pam-</td>
<td>-eko-</td>
<td>—</td>
</tr>
<tr>
<td></td>
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<td></td>
<td>inv(x)</td>
<td>—</td>
</tr>
<tr>
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<td>ke-2</td>
<td>wa·pam-</td>
<td>-eko-</td>
<td>—</td>
</tr>
<tr>
<td></td>
<td>see (TA)</td>
<td></td>
<td>inv(x)</td>
<td>—</td>
</tr>
<tr>
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<tr>
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<td></td>
<td>inv(x)</td>
<td>—</td>
</tr>
<tr>
<td>(X—)21p</td>
<td>ke-2</td>
<td>wa·pam-</td>
<td>-eko-</td>
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<tr>
<td></td>
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<td>inv(x)</td>
<td>—</td>
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<tr>
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<td>ke-2</td>
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<tr>
<td></td>
<td>see (TA)</td>
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<td>inv(x)</td>
<td>—</td>
</tr>
<tr>
<td>(X—)3s</td>
<td>—</td>
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<td>-a·</td>
<td>—</td>
</tr>
<tr>
<td></td>
<td>see (TA)</td>
<td></td>
<td>3/4obj</td>
<td>—</td>
</tr>
<tr>
<td>(X—)3p</td>
<td>—</td>
<td>wa·pam-</td>
<td>-a·</td>
<td>—</td>
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<td></td>
<td>see (TA)</td>
<td></td>
<td>3/4obj</td>
<td>—</td>
</tr>
<tr>
<td>(X—)0s</td>
<td>—</td>
<td>wa·pant-</td>
<td>-a·</td>
<td>—</td>
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<td></td>
<td>see (ti)</td>
<td></td>
<td>0obj</td>
<td>—</td>
</tr>
<tr>
<td>(X—)0p</td>
<td>—</td>
<td>wa·pant-</td>
<td>-a·</td>
<td>—</td>
</tr>
<tr>
<td></td>
<td>see (ti)</td>
<td></td>
<td>0obj</td>
<td>—</td>
</tr>
<tr>
<td>(X—)0s/3s</td>
<td>—</td>
<td>kemo·t-</td>
<td>-en</td>
<td>—</td>
</tr>
<tr>
<td></td>
<td>steal (A1+O)</td>
<td></td>
<td>pres.0/3</td>
<td>-i / -a</td>
</tr>
<tr>
<td>(X—)0p/3p</td>
<td>—</td>
<td>kemo·t-</td>
<td>-en</td>
<td>—</td>
</tr>
<tr>
<td></td>
<td>steal (A1+O)</td>
<td></td>
<td>pres.0/3</td>
<td>-ari / -aki</td>
</tr>
</tbody>
</table>
The final -i in the AI X form is mysterious. Normally, -i is an outer suffix that indexes an inanimate singular argument, but no such argument is present in this AI form. Pentland (1999:244) analyzes the -i in question as a default suffix that occurs “when the lowest participant is not a third person” and considers this default -i to be a distinct suffix from inanimate singular -i. Goddard (2007:252) also considers the two -i suffixes to be distinct.