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Optionality and Variability: Syntactic Licensing Meets Morphological Spell-Out

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OPTIONALITY AND VARIABILITY: SYNTACTIC LICENSING MEETS MORPHOLOGICAL SPELL-OUT

A Dissertation Presented

By

CHERLON USSERY

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OPTIONALITY AND VARIABILITY: SYNTACTIC LICENSING MEETS MORPHOLOGICAL SPELL-OUT

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ABSTRACT

OPTIONALITY AND VARIABILITY: SYNTACTIC LICENSING MEETS MORPHOLOGICAL SPELL-OUT

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This dissertation explores case and verbal agreement in Icelandic. Case and agreement generally pattern together, but there are exceptional instances in which case and agreement come apart. In Icelandic, verbs agree with Nominative DPs. However, in some constructions, agreement with a Nominative is optional. In the standard account of case and agreement (Chomsky 2000), both types of features are determined simultaneously via the same syntactic operation. The standard theory, therefore, predicts that case and agreement should pattern the same way, and that neither should be optional. Moreover, based on fieldwork conducted at the University of Iceland, I present data that has not heretofore been reported. I argue that the likelihood of agreement depends on the type of construction.

My research builds on other work which addresses optionality in Icelandic agreement (e.g. Sigurðsson and Holmberg 2008). This dissertation makes a substantial contribution to the literature on Icelandic agreement in that the rate of agreement across various types of constructions has not been examined. I illustrate that this type of optionality is not only robust, but also systematic.

This dissertation contributes to the larger literature on case and agreement in several important ways. First, I argue for a departure from the standard proposal that case and agreement are established via the same syntactic operation. I propose that it is possible for the probe which assigns case to be in a relationship with a DP, even though the probe which establishes agreement is not in a relationship with that DP. Second, I provide empirical support for Multiple Agree. I argue that the survey findings reported in this dissertation provide evidence that a probe can enter into a relationship with more than one goal. Third, I provide empirical evidence for the optionality of Multiple Agree. I argue that agreement is optional only in constructions in which there is an item intervening between T and the Nominative, and Multiple Agree is, thereby, required in order for an agreement relationship to be established.

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CHAPTER 1

INTRODUCTION

1.0. Introduction

This dissertation explores case and verbal agreement patterns in Icelandic. Case and agreement generally pattern together, but there are exceptional instances in which case and agreement come apart. In Icelandic, finite verbs appear in one of two forms. Either the verb agrees in person and number with a Nominative DP or the verb appears in the default third singular form. In constructions with Nominative subjects, the verb necessarily appears in the agreeing form. In the sentence in (1), the verb *tökum* 'take' displays the first person feature, as well as the plural number feature of the Nominative subject *við* 'we'.

(1) Við tökum/*tekur bókina[1]
we.Nom.1pl take.1pl/*3sg book-the.Acc.3sg
'We take the book.'

However, in constructions with Nominative objects, verbs may appear in either the agreeing form or the default form. In the sentence in (2), the form for 'like' is either *líka*, which agrees with the object *peningarnir* 'the money', or *líkar*, which does not agree with the object.

(2) Sumum stelpunum líka/líkar peningarnir.
some girls.Dat like.3pl/3sg money-the.Nom.pl
'Some girls like the money.'

While there is optionality with respect to whether the verb agrees with the object in (2), there is not optionality with respect to the case of the object. In constructions with Dative

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[1] Examples (1) - (6) are based on those appearing throughout Thráinsson (2007).

subjects, if there is an object, the object is necessarily Nominative. As shown in (3), the object cannot be Accusative.

(3) *Sumum stelpunum líka/líkar peningana
some girls.Dat like.3pl/3sg money-the.Acc.pl
'Some girls like the money.'

The first problem that this dissertation addresses is the asymmetry between case and agreement. There is optionality in agreement with Nominative objects, but no optionality in the case value of the object, as illustrated by the contrast between (2) and (3). The second problem is that there is obligatory agreement with Nominative subjects, but optional agreement with Nominative objects, as illustrated by the contrast between (1) and (2).

The third problem involves new data which has not heretofore been reported, and which has, therefore, not previously been accounted for. Based on a survey of 61 native Icelandic speakers that I conducted in September 2008 at the University of Iceland, the rate of agreement in constructions with post-verbal Nominatives varies depending on the type of construction. In constructions such as (2) agreement obtains 47% of the time. However, in the expletive counterpart to (2), shown in (4), agreement obtains only 36% of the time.

(4) Það líka/líkar sumum stelpunum peningarnir.
expl like.3pl/3sg some girls.Dat money-the.Nom.pl
'There like some girls the money.'

Finite verbs also optionally agree with embedded Nominative subjects. Just as with mono-clausal constructions, there is a contrast between constructions containing expletives and those that do not. The rate of agreement in constructions such as (5) is

36%. By contrast, the rate of agreement in its expletive counterpart, the sentence in (6), is only 18%.

(5) Einum dómara sýndist/sýndust þessar athugasemdir vera óréttlátar.
one judge.Dat.sg understood.3sg/3pl these comments.Nom.pl be unfair
'One judge understood these comments to be unfair.'
(6) Það sýndist/sýndust einum dómara þessar athugasemdir vera óréttlátar.
expl understood.3sg/3pl one judge.Dat.sg these comments.Nom.pl be unfair
'There understood one judge these comments to be unfair.'

The chart in (7) summarizes the rates of agreement in various types of constructions.

(7) Table 1: Rate of Agreement Across Construction Types

Word Order	**Rate of Agreement**
Mono-clauses	
Dat-verb-Nom	47%
Expl-verb-Dat-Nom	36%
Bi-clauses	
Dat-verb-[$_{\text{TP}}$ Nom…]	36%
Expl-verb-Dat[$_{\text{TP}}$ Nom…]	18%

The crucial fact to bear in mind is that the objects and embedded subjects for the sentences represented in (7) are necessarily Nominative. The verb, however, does not necessarily agree.

In the standard account of case and agreement (Chomsky 2000), both types of features are determined simultaneously via the same syntactic operation. T° establishes a relationship with a DP. The consequence of this relationship is that Nominative is assigned to the DP and T° inherits the agreement features of that DP, and those features are displayed on the verb. The standard theory, therefore, predicts that case and agreement should pattern the same way, and that neither should be optional. Moreover, the standard account does not predict, nor does it provide a mechanism to account for, the degradation in agreement shown in (7).

Previous accounts have addressed the issue of optionality in agreement. In particular, Sigurðsson and Holmberg (2008) propose that the syntactic operation which establishes agreement can happen at various points in the course of a derivation. On this account, the head responsible for agreement probes the Nominative. If there is an intervening Dative, agreement is blocked and the default form of the verb is realized. However, if the Dative does not intervene, an agreement relationship is established and the agreeing form of the verb is realized. While this account provides a way to model optionality (though we will see that this analysis does not account for other facts about Icelandic agreement), it does not predict that the rate at which an agreement relationship is established should vary.

Both the standard account of case and agreement and the accounts particular to Icelandic assume that case and agreement features are established in the syntax via Agree (Chomsky 2000). However, there are some analyses which situate either case or both case and agreement in the post-syntactic morphological spell-out component of the grammar. Building on Marantz (1991), McFadden (2004, 2006) proposes that case features are established via a post-syntactic morphological algorithm. In addition, Bobaljik (2008) proposes that both case and agreement are established post-syntactically. In the Government and Binding literature, case was argued to drive movement, determine the distribution of the null subject of infinitivals (PRO), and correlate with grammatical function. There is, however, evidence which suggests that case does not play such a central role in syntax. For instance, case can be assigned under c-command, and does not necessarily force movement. Since agreement tracks case, in that only DPs with certain case values can trigger agreement, it follows that if case is post-syntactic, then agreement must also be post-syntactic. Given this debate about which operations occur in the syntax and which operations occur post-syntactically, it is not immediately evident what role syntax plays in case and agreement versus what role morphology plays in case and agreement.

My proposal makes three primary claims. First, I argue that while case and agreement features are determined in the syntax, each feature is determined via a different syntactic operation. In particular, I propose that the case and agreement features on T are independent probes, and are, therefore, able to be in relationships with different DPs. Second, I propose that the optionality in agreement is derived from the optionality of Multiple Agree (Hiraiwa 2001). While Agree relations usually hold between one probe and one goal, in Multiple Agree, a probe is in a relation with more than one goal. Crucially, I argue that the more goals there are intervening between T and the Nominative, the less likely it is that an agreement relationship will be established. Third, I argue for a division between the licensing of a DP that occurs when its features are checked in the syntax and morphological agreement. Even though a DP is syntactically licensed, it may or may or may not trigger verbal agreement.

This dissertation makes a substantial contribution to the literature on Icelandic agreement in that agreement frequency distributions have not heretofore been reported. While optionality has been discussed (e.g. Sigurðsson and Holmberg 2008), it is sometimes dismissed as marginal (e.g. Anagnostopoulou 2005, Schütze 1997, Sigurðsson 1996). The survey results reported in this dissertation suggest that optionality in Icelandic agreement is robust. Moreover, the survey results suggest that in many constructions which allow optionality, non-agreeing forms of verbs are preferred to agreeing forms, contra what has been previously reported (see references above).

This dissertation contributes to the larger literature on case and agreement in several important ways. First, I argue for a departure from the standard proposal that case and agreement are established via the same syntactic operation. I propose that it is possible for the probe which assigns case to be in a relationship with a DP, even though the probe which establishes agreement is not in a relationship with that DP. Second, I provide empirical support for Multiple Agree. I argue that the survey findings provide evidence that a probe can enter into a relationship with more than one goal. Third, I provide empirical evidence for the optionality of Multiple Agree. While there have been other accounts of agreement which utilize Multiple Agree (e.g., Anagnostopoulou 2005), to my knowledge there has not been a proposal which argues that Multiple Agree is an inherently optional operation. I argue that agreement is optional only in constructions in which there is at least one item intervening between T and the Nominative, and Multiple Agree is, thereby, required in order for an agreement relationship to be established.

1.1. Background

A fact that has received much attention in the literature is that in Icelandic, there is not a one-to-one mapping between grammatical function and case. The typical pattern in Nominative-Accusative case systems is that the subject is Nominative while the object is Accusative. Icelandic sentences also usually follow this pattern, as shown in (1), repeated below in (8).

(8) Við tökum bókina.
we.Nom.1pl take.1pl book-the.Acc.3sg
'We take the book.'

As discussed in great detail by researchers such as Jónsson (1996, 2003); Sigurðsson (2004); Thráinsson (2007); and Zaenen, Maling, and Thráinsson (1985), in Icelandic, subjects are not necessarily Nominative. As we saw in the previous section, subjects in Icelandic may be Dative.[2] Just as there is not necessarily a strict correlation between case and grammatical function, there is also not necessarily a one-to-one mapping between grammatical function and agreement. As we saw in the previous section, verbs agree with Nominatives, irrespective of whether the Nominative is a subject or an object.

Agreement such as that in (8) is common-place throughout the world's languages. The cross-linguistic generalization is that if a language has verbal agreement, in constructions that contain a Nominative argument, the verb agrees with it (see Woolford 2006b for discussion). What is not so common-place is the optionality in agreement that arises with mono-clausal constructions in Icelandic.

Accounting for optionality in a generative system has become a matter of great theoretical interest. One place where optionality surfaces cross-linguistically is in long distance agreement (LDA), i.e., cross-clausal agreement. Analyses of LDA usually relate the optionality to different structures. For instance, Polinsky and Potsdam (2001) argue that LDA in Tsez only occurs when an embedded argument has moved to topic position. In (9)a the clausal complement is category IV and the matrix verb 'know' is marked for category IV agreement. However, in (9)b 'know' is marked for category III, displaying

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[2] Icelandic also has Accusative and Genitive subjects. Dative is the most frequent case value for non-Nominative subjects. (Approximately 4% of Icelandic verbs take Dative subjects, while the combined figure for verbs which require either a Genitive subject or an Accusative subject is under 1%.) The literature on non-Nominative subjects in Icelandic, therefore, tends to focus on Dative subjects. While I also focus on Dative subjects, I expect that agreement would pattern the same way in constructions with Accusative and Genitive subjects.

agreement with the embedded object. Polinsky and Potsdam (2001) provide evidence that *magalu* ‘bread’ has been topicalized within the embedded clause, and is, therefore, sufficiently local to the matrix verb to trigger agreement.

(9) a. enir [užā magalu bāc’ rułi] r-iyxo
mother [boy bread.III.Abs ate].IV IV-know
The mother knows [the boy ate the bread]
‘The mother knows the boy ate the bread.’

b. enir [užā magalu bāc’ rułi] b-iyxo
mother [boy bread.III.Abs ate].IV III-know
The mother knows [the boy ate the bread]
‘The mother knows the boy ate the bread.’ (Polinsky and Potsdam 2001)

Other analyses relate LDA to restructuring, a syntactic configuration in which the complement clause is transparent for certain processes (see Bhatt 2005 for a discussion of Hindi-Urdu. See Wurmbrand 2001 and Bobaljik and Wurmbrand 2005 for a discussion of German with extensions to other languages).[3] While optionality in cross-clausal agreement may be explained by invoking alternate structures, this type of analysis does not extend to optionality in mono-clausal constructions. As evidenced by the survey findings summarized in (7), agreement optionality is robust in both mono-clausal construction and bi-clausal constructions in Icelandic. These facts, therefore, demand an analysis which can account for optionality in both types of constructions. As discussed in Section 1.0, I argue that the optionality in agreement is derived from the optionality of Multiple Agree.

This dissertation makes a crucial distinction between operations that apply in the syntax and operations that apply post-syntactically, in the morphological component of the grammar. I show that this distinction is necessary to account for an asymmetry in

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[3] Also see Bruening (2001) for a thorough discussion of LDA in Passamaquoddy.

person features in Icelandic. While third person Nominative objects are allowed, as illustrated in Section 1.1, first and second person Nominative objects are not allowed, as shown in (10).

(10) *Henni leiddist við/þið.
her.Dat bored.3sg we.Nom.pl/you.Nom.pl
'She found us/you boring.'

Previous accounts (in particular Anagnostopoulou 2005 and Sigurðsson and Holmberg 2008) have related the ungrammaticality of (10) to the inability of a post-verbal Nominative to trigger agreement. However, constructions with first and second person embedded Nominative subjects are grammatical. As shown in (11)a, while the first person embedded Nominative subject is allowed, the matrix verb cannot agree with it. By contrast, the third person embedded Nominative subject in (11)b patterns like the Nominative objects in optionally triggering agreement on the matrix verb.

(11) a. Mörgum kennurum mundi/*mundum virðast við (vera) hæfir.
many.Dat teachers.Dat.pl would.3sg/*1pl seem we.Nom.pl (be) competent
'We would seem competent to many teachers.'

b. Mörgum kennurum mundi/mundu virðast þeir (vera) hæfir.
many.Dat teachers.Dat.pl would.3sg/3pl seem they.Nom.pl (be) competent
'They would seem competent to many teachers.'
(based on Sigurðsson and Holmberg 2008, EX 7)

The contrast between (10) and (11)a suggests that syntactic licensing and morphological agreement are not one in the same. If a DP that cannot trigger agreement cannot be licensed, then (11)a should be ungrammatical, just as (10) is. The analysis in this dissertation divorces the syntactic licensing of a DP from morphological agreement and argues that ungrammaticality can arise either when syntactic requirements are not met or when morphological requirements are not met.

While case and agreement usually pattern together, this dissertation focuses on the exceptional instances in which case and agreement come apart, because these present a challenge to the standard theory. While I account for the non-canonical instances where case and agreement diverge, I do not do so at the expense of the generalization that verbs tend to agree with Nominative DPs. My analysis accounts for both the generalization and the exception.

I assume that case and agreement are established via Agree (Chomsky 2000), an operation in which some syntactic item establishes a relationship with another syntactic item for the purpose of feature checking or valuation. I account for the division between case and agreement by proposing that case and agreement are established via different Agree relationships. In particular, I argue that the case and agreement features on T, may probe independently of each other. It is, therefore, possible for a DP to be in case relationship with T, but not be in an agreement relationship with T.

I derive the optionality in (11)b, as well as the optionality in mono-clausal constructions from the optionality of Multiple Agree. I argue that when the agreement head on T probes only the Dative, the result is default agreement, since verbs do not agree with Datives. However, when the agreement head on T probes both the Dative and the Nominative, there is agreement with the Nominative.

Since non-finite T in Icelandic may value Nominative case (Sigurðsson 1991), it seems reasonable that it can also check the person features of a Nominative DP, even though there is no agreement morphology on non-finite T. This will be crucial because of my treatment of person. I argue that sentences such as (10) are ungrammatical when the person feature of the Nominative goes unchecked because the agreement head on T probes only the Dative. By contrast, (11)b is grammatical because the agreement head on non-finite T probes only the Nominative, as there is no closer Dative in the complement clause.

The remaining question is: Why is it that the Nominative in (11)a cannot agree with the finite verb, while the Nominative in (11)b can? The answer to this question lies in the proposal that phi feature checking and morphological agreement are not necessarily the same. In both (11)a and (11)b finite T optionally probes the embedded Nominative after probing the matrix Dative. However, when T probes both the Dative and the Nominative in (11)a there is a morphological clash, while there is no morphological clash in (11)b. There is no morphological clash in (11)b because both the Dative and the Nominative assign a default person value to T. T cannot inherit the features of a Dative and the Nominative does not have a person value, as third person DPs lack a person specification. However, in (11)a the Dative assigns a default value, while the Nominative assigns a first person value. The verb would, therefore, have to simultaneously realize the default person value and the first person value. This is not possible, since the first person plural form of 'would' is *mundum* and the third person plural form is *mundu*. Since the third person and the first person forms cannot simultaneously be realized, the derivation in which T probes both the Dative and the Nominative is ungrammatical. The only grammatical derivation is the one in which T probes only the Dative, which results in the default verbal form. Crucially, agreement in (11)a fails at the point of morphological spell-out, not at the point of syntactic licensing of the DP.

Based on the analysis sketched above, the prediction is that if the default feature from the Dative and the person feature from the Nominative <u>can</u> be simultaneously realized, then the derivation in which T has a relationship with both the Dative and the Nominative should be grammatical, and this is precisely what happens. Sigurðsson and Holmberg (2008) report a "look-alike" effect in which a matrix verb ostensibly agrees in person with an embedded Nominative subject. The sentence in (12) patterns like the one in (11)b in that agreement is optional.

(12) Mörgum kennurum virt**i**st/ virt**u**st þið eitthvað einkennilegir.
many.Dat teachers.Dat.pl seemed.3sg/2-3.pl you.Nom.pl somewhat strange
'You seemed somewhat strange to many teachers.'
(based on Sigurðsson and Holmberg 2008, EX 50)

Unlike in (11)b, in (12) it is possible to simultaneously realize the default person feature inherited from the Dative and the second person feature inherited from the Nominative. Since the second and third person plural forms are syncretic, the derivation in which T probes both the Dative and the Nominative is grammatical. There is no crash at the point of morphological spell-out. The contrast between (11)a and (12), therefore, suggests that the morphological component of the grammar plays a crucial in the well-formedness of strings.

1.2. What is Not in This Dissertation

While this dissertation explores case and agreement patterns, it does not provide a comprehensive theory of case and agreement. Nor is it a comprehensive overview of Icelandic agreement. Icelandic has a rich agreement system that extends beyond the verbal agreement patterns that are discussed in this dissertation (see Sigurðsson 2006 and Thráinsson 2007 for a thorough discussion of Icelandic agreement). Because the morphological patterns in Icelandic challenge some common assumptions about the nature of case and agreement, I use Icelandic as a tool to build a theory which accounts for optionality.

Also, I do not attempt to explain why Nominatives have a privileged relationship with agreement. Cross-linguistically, case and agreement *usually* go hand-in-hand. Verbs tend to agree with Nominative subjects, while verbs tend not to agree with non-Nominative subjects. I do not provide a deeper explanation for this fact. Rather, I adopt the standard assumption that Nominative case assignment and agreement are both connected with the Tense projection.

Finally, this dissertation does not provide a comprehensive theory of the syntax-morphology interface. I adopt elements of the Distributed Morphology framework (Halle and Marantz 1993; Embick and Noyer 2001, 2007), in which morphological forms come about as a result of an interaction between syntactic operations and post-syntactic morphological operations. My goal is not to argue for or against this model. Rather, I adopt the basic assumption of Distributed Morphology that the terminal nodes of syntactic derivations are comprised of feature bundles and that the morphological shape of these feature bundles is determined post-syntactically.

1.3. Outline of the Dissertation

This dissertation is organized as follows:

Chapter 2 outlines the division between case and agreement. Surveying a variety of constructions in a variety of languages, I illustrate that case and agreement do not necessarily pattern together. In particular, I highlight the fact that while there is optionality in agreement in Icelandic constructions with Dative subjects and Nominative objects, there is no optionality in case. This chapter also provides an overview of the standard account of case and agreement, as well as some recent challenges to the idea that both types of features are established in the syntax. I discuss proposals which situate case or both case and agreement in the post-syntactic morphological component of the grammar. Finally, I make explicit my assumption that case and agreement features are determined in the syntax, even though the morphological forms which display those features are inserted post-syntactically.

Chapter 3 provides an analysis of person and number agreement in Icelandic. I outline the particular theoretical claims that I make about the feature composition of T, the disparate behavior of person and number features, the nature of Agree and Multiple Agree, and the morphological consequences of Agree and Multiple Agree relationships. I illustrate that while morphological forms are determined via an interaction between syntactic operations and morphological operations, syntactic feature checking and valuation is distinct from morphological agreement.

Chapter 4 demonstrates that though optional, agreement with post-verbal Nominatives in Icelandic is systematic. I report the findings of a survey of sixty-one native Icelandic speakers that I conducted in September 2008. I argue that the results illustrate that the rate of agreement with post-verbal Nominatives in Icelandic depends on the type of construction. In particular, I show that agreement diminishes with increased applications of Multiple Agree. I argue that the systematic nature of optionality in agreement provides new insight into the nature of Multiple Agree, in particular, that Multiple Agree is an inherently optional operation.

Chapter 5 returns to some of the issues raised in Chapter 2 and explicates particular aspects of the analysis proposed in Chapters 3 and 4. I address the issue raised in Chapter 2 about the architecture of the grammar and whether case and agreement features are determined in the syntax or post-syntactically. The standard analysis is that both case and agreement features are determined in the syntax, and this is the analysis argued for in this dissertation. There are, however, good reasons for situating case and/or agreement outside of syntax. Nonetheless, I illustrate that these approaches amount to doing syntax post-syntactically and that the redundancy inherent in such approaches seems inconsistent with a Minimalist framework. Additionally, I discuss the relationship between case and agreement. I show that while these probes are independent, they are inherently linked. This chapter also addresses possible motivations for and implications of the degradation in agreement that is reported in Chapter 4. Finally, I address case assignment in Icelandic infinitivals, as well as assumptions about how Agree relations are established.

Chapter 6 concludes and outlines questions for future research.

CHAPTER 2

THE DIVISION BETWEEN CASE AND AGREEMENT

2.0. Introduction

One cannot talk about agreement without talking about case. In this chapter, I outline a wide range of phenomena which illustrate that while case and agreement generally pattern together, they do not necessarily do so. The facts presented in this chapter motivate a key component of the analysis presented in Chapter 3 and Chapter 4, namely that the case and agreement features on T probe independently.

This chapter provides an overview of the standard analysis of case and agreement, as well as some modifications to the standard analysis that have been proposed to account for the divide between case and agreement. I also discuss some recent proposals which challenge the assumption that case and agreement features are determined in the syntax. For instance, McFadden (2004, 2006) proposes that case is assigned post-syntactically via a morphological algorithm. Bobaljik (2008) adopts the idea that case is assigned post-syntactically and goes a step further by proposing that agreement is also determined at PF. Bobaljik's (2008) key insight is that agreement tracks case – i.e., only DPs with certain case values can trigger agreement. If case is determined post-syntactically, then agreement must also be determined post-syntactically. While I argue against post-syntactic treatments of case and agreement in this chapter, I weigh in more heavily on this debate in Chapter 5. There I show that situating case and/or agreement in the post-syntactic component of the grammar requires operations that are nearly identical to those which take place in syntax.

This chapter is organized as follows: Section 2.1 outlines cross-linguistic data which illustrate that case and agreement may be subject to different conditions. Section 2.2 provides an overview of the standard account of case and agreement and the challenges that Icelandic agreement patterns, in particular, pose to the standard account. I also provide an overview of analyses of case and agreement which argue for modifications to the standard theory in order to account for the divide between case and agreement. Section 2.3 provides an overview of recent proposals which challenge the assumption that case and agreement features are determine in the syntax. Section 2.4 concludes and sets the stage for Chapter 3, in which I provide an analysis of person and number agreement in Icelandic.

2.1. The Case and Agreement Divide

While this dissertation primarily uses Icelandic as a window into the case-agreement divide, this phenomenon is not unique to Icelandic. In this section I provide evidence from a variety of languages, including Icelandic, which illustrate that case and agreement may pattern differently.

2.1.1. Post-verbal Nominatives in Icelandic

In Icelandic, finite verbs agree in person and number with Nominative arguments. Usually, the Nominative is the subject, as shown in (13) .

(13) Icelandic
a. Við tökum bókina.
we.<u>Nom</u> take.<u>1pl</u> book-the
'We take the book.'

b. Þið takið bókina.
you.<u>Nom</u> take.<u>2pl</u> book-the
'You take the book.' (Sigurðsson 2006)

As discussed in Chapter 1, Icelandic also has non-Nominative subjects and Nominative objects. In Section 2.2.3, I provide evidence discussed by other researchers which illustrates that non-Nominative subjects are indeed grammatical subjects, and not fronted objects. In addition to Nominative subjects, Icelandic has Accusative subjects, as in (14)a, Genitive subjects, as in (14)b, and Dative subjects.

(14) a. Strákana rak á land.
boys-the.Acc drifted.3sg to shore
'The boys drifted ashore.'

b. Stórhríðarinnar gætti ekki í hellinum.
blizzard-the.Gen was-noticeable not in cave-the.Dat
'The blizzard wasn't noticeable in the cave.' (Thráinsson 2007:159)

Whether a sentence contains a Nominative subject or a non-Nominative subject depends on the verb. The vast majority (approximately 96%) of Icelandic verbs select for subjects that bear structural, i.e. Nominative, case. A handful of verbs select for subjects that bear non-structural case. That is, the particular non-Nominative case value of the subject depends on the verb. Non-Nominative subjects are often referred to as "quirky" subjects in the Icelandic literature. Because the most common type of quirky subject is Dative (just under 4% of Icelandic verbs require Dative subjects), the Icelandic literature on quirky subjects tends to highlight constructions with Dative subjects. I also focus on Dative subjects, and the examples throughout this dissertation contain constructions with Dative subjects. At this time, I do not have reason to believe that constructions with Accusative or Genitive subjects would pattern differently with respect to agreement.

In constructions with Dative subjects, a finite verb may agree with a Nominative object, as shown in (15).

(15) Icelandic
Einum málfræðingi líkuðu þessar hugmyndir.
one linguist.Dat liked.3pl these ideas.Nom.pl
'One linguist liked these ideas.'
(Sigurðsson and Holmberg 2008)

Agreement with Nominative objects has been widely reported in the literature, notably by Jónsson (1996, 2003), Sigurðsson (1996, 2003, 2006), Sigurðsson and Holmberg (2008), and Thráinsson (2007). An intriguing, and less-discussed, fact is that while verbs necessarily agree with Nominative subjects, verbs do not necessarily agree with Nominative objects. For some speakers, agreement in constructions such as (15) is optional, while for other speakers agreement is not allowed at all.

Sigurðsson and Holmberg (2008) address this variation and report that there are three dialects with respect to number agreement in constructions with a Dative subject and a Nominative object. In Icelandic, indefinite subjects are allowed to remain VP internal. With this word order, the Dative subject intervenes between the verb and the Nominative object. In what Sigurðsson and Holmberg (2008) identify as Dialect A, agreement is always allowed, and is preferred when the Dative does not intervene, as shown in (16). The non-agreeing third person singular form is the default form, as verbs in Icelandic do not agree with Datives or expletives.

(16) Icelandic – Dialect A
a. *No intervening Dative*
Einum málfræðingi ?líkaði/líkuðu þessar hugmyndir.
one linguist.Dat liked.3sg/3pl these ideas.Nom.pl
'One linguist liked these ideas.'

b. *Intervening Dative*
Það líkaði/líkuðu einum málfræðingi þessar hugmyndir.
expl liked.3sg/3pl one linguist.Dat these ideas.Nom.pl
'There liked one linguist these ideas.'
(Sigurðsson and Holmberg 2008)

In Dialect B, agreement is allowed in the SVO word order, but is not allowed when the Dative subject intervenes, as shown in (17).

(17) Icelandic – Dialect B
a. *No intervening Dative*
Einum málfræðingi líkaði/líkuðu þessar hugmyndir .
one linguist.Dat liked.3sg/3pl these ideas.Nom.pl

b. *Intervening Dative*
Það líkaði/*líkuðu einum málfræðingi þessar hugmyndir.
expl liked.3sg/*3pl one linguist.Dat these ideas.Nom.pl
(Sigurðsson and Holmberg 2008)

In Dialect C, agreement is questionable when the Dative does not intervene and is not allowed when the Dative does intervene, as shown in (18).

(18) Icelandic – Dialect C
a. *No intervening Dative*
Einum málfræðingi líkaði/??líkuðu þessar hugmyndir.
one linguist.Dat liked.3sg/??3pl these ideas.Nom.pl

b. *Intervening Dative*
Það líkaði/*líkuðu einum málfræðingi þessar hugmyndir.
expl liked.3sg/*3pl one linguist.Dat these ideas.Nom.pl
(Sigurðsson and Holmberg 2008)

The patterns in (16) - (18) are summarized below in (19).

(19) Table 2: Agreement with Post-verbal Nominatives in Icelandic

	Dialect A	Dialect B	Dialect C
Dat verb Nom	Agreement preferred	Agreement optional	Non-agreement preferred
Verb Dat Nom	Agreement optional	No agreement	No agreement

There are two crucial observations with respect to the patterns in (16) – (18). The first is that there is an ostensible Dative intervention effect for Dialects B and C. In Dialect B, the Dative blocks agreement when it overtly intervenes between the verb and the Nominative, as shown in (17)b. In Dialect C, the Dative blocks agreement when it overtly intervenes, as in (18)b, and when its copy intervenes, as in (18)a. Since subjects are merged inside *v*P, a copy of the Dative intervenes between the verb and the Nominative in (18)b. This ostensible Dative intervention effect is somewhat unexpected, especially as Dative intervention effects are not reported in closely related languages, as highlighted by Broekhuis (2007). For instance, in Dutch, it is reported that intervening Datives do not affect agreement. In (20), the Dative intervenes and the verb agrees with the Nominative.

(20) Dutch[4]
Daarom lijken Jan/hem de grafieken niet te kloppen.
Therefore seem.pl Jan/him.Dat the charts.Nom.pl not to be-correct
'Therefore, the charts seem to be wrong to Jan/him.'
(Broekhuis 2007)

The second observation is simply that Nominative objects do not necessarily trigger agreement on finite verbs. While not all researchers are convinced that the variation in Icelandic agreement fits into the easily identifiable dialects reported by Sigurðsson and Holmberg (2008) (Eyþórsson p.c., Jónnson p.c.), that there is some level of variation and optionality in constructions with post-verbal Nominatives is not disputed. What is intriguing is that there is an asymmetry between Nominative subjects and Nominative objects. Variation and optionality in agreement with Nominative subjects in Icelandic is not attested; Nominative subjects necessarily agree. In (21) only the agreeing form of the verb is allowed.

(21) Margir sjúklingar bitu/*beit kjötið
many.Nom.pl patients.Nom.pl bit.3pl/*3sg meat-the.Acc
'Many patients bit the meat.'

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[4] Although Broekhuis (p.c.) reports that some speakers prefer the non-agreeeing form of the verb in constructions such as (20). Broekhuis proposes that Icelandic Datives block agreement and Dutch Datives do not block agreement because Icelandic Datives have a quirky feature that needs to be checked by T°. Icelandic Datives are still active when T° is merged, so they are blockers. Dutch Datives do not have a quirky feature, as Dutch does not have Dative subjects. Therefore, Datives are no longer active when T° is merged, so they are not blockers.

This asymmetry is particularly salient if we adopt the standard account that Nominative case is assigned by T. This means that in Icelandic either a subject or an object can be in a case relationship with T. In constructions with Nominative subjects, Nominative is assigned to the subject by T. In constructions in which the subject bears a lexically specified case, Nominative is assigned to the object by T. The patterns in (16) – (18) illustrate a division between case and agreement and raise the question: Why should agreement with objects that receive Nominative from T pattern differently from agreement with subjects that receive Nominative from T?

Additionally, as will be discussed at length in Chapter 4, agreement with Nominative objects and embedded Nominative subjects is sensitive to factors other than whether a Dative intervenes. For instance, in bi-clausal constructions such as (22), the Dative does not intervene. Yet, speakers who prefer agreement in mono-clausal constructions such (15) are less likely to prefer agreement in constructions such as (22).

(22) Icelandic
Mörgum þóttu/þótti [$_{\text{TP}}$ kjólarnir dýrir]
many.Dat found.3pl/3sg dresses.the.Nom.pl expensive
‘Many found the dresses expensive.’

In Chapter 4, I derive the optionality in agreement with post-verbal Nominatives from the optionality of Multiple Agree (I detail the nature of Multiple Agree in 2.2.4.) and I argue that the more Agree relations that must be established in order for T to probe the Nominative, the less likely it is that T will probe the Nominative. I argue that agreement is less likely in (22) than in (15) because there is an additional Agree relation in (22). T probes the complement clause, in addition to probing the Dative.

2.1.2. Post-verbal Subjects in Arabic and Italian

While in Icelandic, there is an asymmetry between Nominative subjects and Nominative objects, in some other languages, there is an asymmetry between preverbal and post-verbal subjects. Samek-Lodovici (2003) observes that the degree to which a subject triggers agreement is often dependent on the surface position of the subject. The key observation is that when a subject is post-verbal, agreement on the verb is either the same as when the subject is preverbal or it is impoverished. However, preverbal agreement is never impoverished with respect to post-verbal agreement. For instance, in Standard Arabic, finite verbs agree in person, gender, and number with pre-verbal subjects. In (23)a, the verb agrees with all phi features of the pre-verbal subject. However, in (23)b, the subject is post-verbal and the verb agrees with it only in person and gender; the number feature is the default singular.

(23) Arabic

a. L-banaat-u darab-na / *-at l-ʔawlaad-a
the-girls-Nom hit-past-3fem.pl./3fem.sg the-boys-Acc
'The girls hit the boys.'

b. Darab-at / *-na ʔal-banaat-u Zayd-an
hit-past-3fem.sg / *3fem.pl the-girls-Nom Zayd-Acc
'The girls hit Zayd.' (Samek-Lodovici 2003)

Another example appears in the northern Italian dialect of Conegliano. In Conegliano, a preverbal clitic (assumed to be generated in T) hosts agreement information. With preverbal subjects, the clitic is mandatory and shows person, gender, and number features, as shown in (24). However, with post-verbal subjects, the preverbal clitic is not allowed, as shown in (25).

(24) Conegliano

a. La Maria la riva
the Mary 3fem.sg arrive
'Mary arrives.'

b. *La Maria riva
the Mary arrive
'Mary arrives.' (Samek-Lodovici 2003)

(25) Conegliano

a. *La riva la Maria
3fem.sg arrive the Mary
'Mary arrives.'

b. Riva la Maria
arrive the Mary
'Mary arrives.' (Samek-Lodovici 2003)

The chart in (26) illustrates the typological generalization that pre-verbal agreement is never poorer than post-verbal agreement. The first section indicates languages in which pre and post-verbal agreement remain the same; the second section indicates languages in which post-verbal agreement is somewhat impoverished; the third section indicates languages in which post-verbal agreement is significantly impoverished, with person being the only agreeing feature.[5]

(26) Table 3: Cross-linguistic comparison of agreement with pre and post verbal subjects

Language	**Pre-verbal Agreement**	**Post-verbal Agreement**
Agreement does not change		
Moroccan Arabic	person, number, gender	person, number, gender
Standard Italian	person, number	person, number
Spanish	person, number	person, number
Chinese	none	none
Somewhat Impoverished		
Standard Arabic	person, number, gender	person, gender
French	person, number	person
Fassan	person, number, gender	person, (number)[6]
Genoese	person, number, gender	person, (number)
Ampezzan	person, number, gender	person, (number)
Romagnol	person, number, gender	person, (number)
Very Impoverished		
Conegliano	person, number, gender	person
Trentino	person, number, gender	person
Fiorentino	person, number, gender	person

(Samek-Lodovici 2003, based on data from Fassi Fehri 1993, Haiman & Benincá 1992, Saccon 1993, Brandi & Cordin 1989, and Lu 1994)

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[5] It should be noted that what is classified as post-verbal person agreement might actually be a lack of person agreement. In many languages only a 3rd person subject may remain VP internal and many accounts of person agreement (e.g., Sigurðsson and Holmberg 2008) argue that agreement is only established with DPs in the first or second person. In Chapter 3, I will also argue that only first and second person DPs must enter into a relationship with T.

[6] In Fassan, Genoese, Ampezzan, and Romagnol, number agreement is only lost with feminine subjects and is optional.

Though Samek-Lodovici (2003) does not discuss Icelandic, it falls into the 'somewhat impoverished' category by virtue of the fact that first and second person post-verbal Nominatives are not allowed. I assume that third person agreement is the lack of person agreement (as discussed in Chapters 1 and 3). Therefore, the pattern in Icelandic is that preverbal Nominatives agree in person and number while post-verbal Nominatives agree in number only. This asymmetry between pre-verbal and post-verbal DPs in Icelandic and other languages provides another example of case and agreement patterning differently. Nominative subjects receive case from T° irrespective of whether they move out of the VP. We are, therefore, left to wonder why subjects that remain VP-internal do not necessarily trigger agreement to the degree that their pre-verbal counterparts do.

2.1.3. Long Distance Agreement in Hindi-Urdu

Another instance of case and agreement coming apart is in Hindi-Urdu. In Hindi-Urdu, agreement is triggered by the highest DP that does not have an overt case marking. Nominative and Accusative DPs are not overtly marked, while Ergative DPs are overtly marked. This means that in Hindi-Urdu, a verb can agree only with a Nominative or an Accusative DP. In (27)a, there is a Nominative subject and an Accusative object, meaning that neither the subject nor the object is overtly case-marked. Here, the finite verb *parh-taa* 'read' and the auxiliary *thaa* 'be' agree in gender and number with the subject *Rahul*. Since both the subject and the object lack overt case marking, the higher argument – the subject – is the agreement trigger. In (27)b, however, the subject bears the ergative marking, *-ne*. This disqualifies the subject from triggering agreement and the finite verb and the auxiliary agree with the object *kitaab* 'book'.

(27) Hindi-Urdu
a. Nominative subject, Accusative object, both non-overtly case-marked
Rahul kitaab parh-taa thaa
Rahul.Masc. book.Fem read-Hab.Masc.Sg be.Pst.Masc.Sg
‘Rahul used to read (a/the) book.’

b. Ergative subject, Accusative object, only object is non-overtly case-marked
Rahul-**ne** kitaab parh-ii thii
Rahul-Erg book.Fem. read-Pfv.Fem be.Pst.Fem.Sg.
‘Rahul had read the book.’ (Bhatt 2005)

Building on previous work, Bhatt (2005) discusses the patterns in long distance agreement (LDA) in Hindi-Urdu. Long distance agreement refers to bi-clausal constructions in which an argument in the lower clause triggers agreement in the higher clause. Long distance agreement in Hindi-Urdu can occur only if the matrix clause has an overtly case-marked argument – i.e., an Ergative subject. In a bi-clausal construction, the matrix subject is the highest argument. Therefore, if the matrix clause contains a Nominative subject, the verb agrees with it. Because verbs cannot agree with Ergatives, if the matrix clause contains an Ergative subject, the verb may agree with an embedded Accusative object. Additionally, if the matrix verb agrees with the embedded object, then the infinitival verb does as well. In (28)a, the object of the lower clause ***t**ehnii* ‘branch’ triggers gender and number agreement with the higher clause auxiliary *thii* ‘be’ and the verb *chaah-ii* ‘want’. Additionally, ‘branch’ triggers agreement with the infinitive *kaa**t**-nii* ‘cut’. Since LDA in Hindi-Urdu is optional, in (28)b, ‘branch’ does not trigger agreement. The matrix verb and auxiliary, as well as the infinitive, are default masculine.

(28) Hindi-Urdu[7]

a. LDA + infinitival agreement
Shahrukh-ne [tehnii kaat -nii] chaah-ii thii
Shahrukh-Erg branch.Fem. cut-Inf.Fem. want-Pfv.Fem. be.Pst.Fem.Sg
'Shahrukh had wanted to cut the branch.'

b. no infinitival agreement, no LDA
Shahrukh-ne [tehnii kaat-naa] chaah-aa thaa
Shahrukh-Erg branch.Fem cut-Inf.Masc. want-Pfv.Masc.Sg. be.Pst.Masc.Sg.
'Shahrukh wanted to cut a/the branch.'
(Bhatt 2005)

Bhatt (2005) argues that the embedded object is assigned Accusative case in the lower clause. Yet, the object is able to trigger agreement in the higher clause in (28)a. To account for this separation between case and agreement, Bhatt (2005) proposes that a DP can enter into more than one Agree relationship. The Agree relationship with *v* in the lower clause results in Accusative case being assigned and the Agree relationship with T in the higher clause results in the matrix verb (and parasitically, the infinitive) displaying the phi features of the DP. I discuss the details of this proposal in Section 2.2.4.

2.1.4. Agreement in Choctaw

Choctaw is argued to exhibit different systems for case and agreement. As discussed in Woolford (2008), the standard account is that the case system is Nominative-Accusative, while the agreement system is active-stative (see Davies 1986, Mithun 1991, and Broadwell 2006 for discussion). In Choctaw, all subjects have Nominative case. However, all Nominative subjects do not trigger agreement in the same way. In general, agentive subjects are cross-referenced with what Munro and Gordon (1982) call Series I morphemes, while other subjects are generally cross-referenced with what are referred to

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[7] It should also be noted that LDA is optional and correlates with specificity; the object is more specific in LDA constructions.

as Series II and Series III morphemes. In (29)a, the verb *chopali* 'buy' agrees with the first person singular Nominative subject. In (29)b, the first person singular morpheme *sa* is prefixed to the verb *yimmih* 'believe'.

(29) Choctaw
a. An-akoosh nípi' chopa-li –tok.
I-contrastive:Nom meat buy -1.sg -past
'I (not someone else) bought the meat.'
(Woolford 2008:6, from Broadwell 2006:93)

b. Chi- sa- yimmi -h
2sg.clitic.Acc 1sg.clitic.Nom believe -pred
'I believe you.' (Woolford 2008:8, from Davies 1986:77)

For Woolford (2008), the crucial difference between (29)a and (29)b is that the Series I morpheme *li* in (29)a is an example of true agreement – i.e., agreement with a Nominative – while the Series II morpheme *sa* in (29)b is a pronominal clitic. Woolford's (2008) distinction between true agreement and pronominal clitics is based in part on the different types of nominals that the Series I and Series II/III forms cross-reference. Series I morphemes in Choctaw cross-reference only Nominative arguments, while Series II and III morphemes cross-reference Nominatives, Accusatives, and possessives. The crucial point is that Series I verbal forms cross-reference only, but not all, Nominatives. In this respect, Choctaw patterns like Icelandic. In both languages, only, but not all, Nominatives trigger agreement.

2.1.5. Case Optionality in Icelandic control

Up until this point, I have only discussed verbal agreement and we have seen several types of constructions in which verbal agreement is optional or impoverished, while the case of a nominal is not. However, there are also constructions in which agreement is required and case is optional. One such construction is control in Icelandic.

In non-control constructions in Icelandic, predicate adjectives agree in case, gender, and number with their subjects. In (30), the adjective *rík* 'rich' shares the Nominative, feminine, and singular features of the subject *hún* 'she'.

(30) Icelandic
hún verður rík.
she.Nom.fem.sg. will-be rich Nom.fem.sg.
'She will be rich.' (Andrews 1982:22)

In control constructions, predicate adjectives also share the features of the subjects they modify. In the subject control construction in (31)a, the embedded adjective 'popular' is necessarily feminine singular. However, the adjective can bear either Nominative or the Accusative case of the controller. In (31)b, the embedded adjective 'good' is necessarily masculine singular, but can bear either Nominative or the Dative case of the controller.

(31) Icelandic
a. hana$_i$ langar til að PRO$_i$ vera vinsael /vinsaela
she.Acc.fem.sg. longs towards to to-be popular.Nom.fem.sg./Acc.fem.sg.
'She longs to be popular.'
(Andrews 1982:26)

b. hún skipaði honum$_i$ að PRO$_i$ vera góður /góðum
she.Nom ordered him.Dat.masc.sg. to to-be good.Nom.masc.sg.)/ Dat.masc.sg.
'She ordered him to be good.'
(Andrews 1981:453)

Because predicate adjectives generally agree with their subjects, we can assume that the embedded adjectives in (31) actually display the case and phi feature values of PRO, not the controller (see Ussery 2008 for discussion). While the concord type of agreement in (31) is of a different nature than verbal agreement, it nonetheless illustrates that case and agreement do not necessarily travel together.

2.2. The Standard Account: Case and Agreement as Part of the Syntax

2.2.1. What is Agree?

In most accounts, case and agreement features are taken to be assigned in the syntax via the operation Agree. In the most general sense, Agree is the operation by which a functional head (the probe), which has some set of valued or unvalued features, searches its c-command domain for a head or phrase which has the relevant set of matching features (the goal). Chomsky's (2000) definition of Agree is in (32).

(32)

$$\begin{tikzcd}\alpha \arrow[rr, bend right] & > & \beta\end{tikzcd}$$

Agree (α, β), where α is a probe and β is a matching goal, '>' is a c-command relation and uninterpretable features of α and β are checked/deleted. [8]

(Chomsky 2000)

Agree is, of course, subject to locality conditions. In general, Agree holds between items that are in the same clause or between an item in a matrix clause and an item that is at the edge of an embedded clause. In addition to Merge and Move, Agree is a core grammatical operation. The standard assumption throughout the GB literature prior to Chomsky (2000) was that feature-checking operations occurred strictly in a Spec-head configuration. A functional head possessed certain features that it could license on a lexical item only in its specifier. That item moved either overtly or covertly to the specifier of the functional projection, the result being that the relevant features were checked or licensed on the moved item. One of the most familiar instances of this feature-checking operation was the assignment of Nominative case by finite T. On the assumption that subjects are introduced in the specifier of *v*P, in a Spec-head feature-checking model, subject DPs moved to the specifier of TP in order to receive Nominative

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[8] In Chapter 3, I propose a slight variation of this definition and I return to my motivations for this modification in Chapter 5.

case. In languages such as English, this movement was arguably overt, as subjects are necessarily pre-verbal (barring expletive constructions, in which it was argued that the expletive received Nominative, which it shared with the subject). In languages such as Italian and Icelandic, in which subjects may be post-verbal, the idea was that a subject DP covertly moved to Spec,TP.

The problem with requiring a spec-head configuration comes about when we consider evidence which suggests that a subject DP has not undergone covert movement. Scope and binding facts from German and Icelandic provide such evidence. Wurmbrand (2006) provides convincing arguments that some subjects remain in VP-internal positions at LF. In the Icelandic example in (33)a, *margir nemendur* 'many students' is Nominative and it cannot take scope over the negation. Thus, this sentence means that "It is not the case that many students have been here." It could be that some students have been here. The sentence cannot mean "As for many students, those students have not been here." Additionally, in the example in (33)b, the Nominative *einhverjir umskæjendur* 'some applicants' cannot bind the reciprocal 'each other'. If 'some applicants' had moved covertly to Spec,TP, it would c-command the reciprocal and we would expect that the reciprocal could be bound by 'some applicants'.

(33) Icelandic
a. Þess vegna hafa ekki verið margir nemendur hér.
therefore have not been many students.Nom here
'Therefore, not many students have been here.'

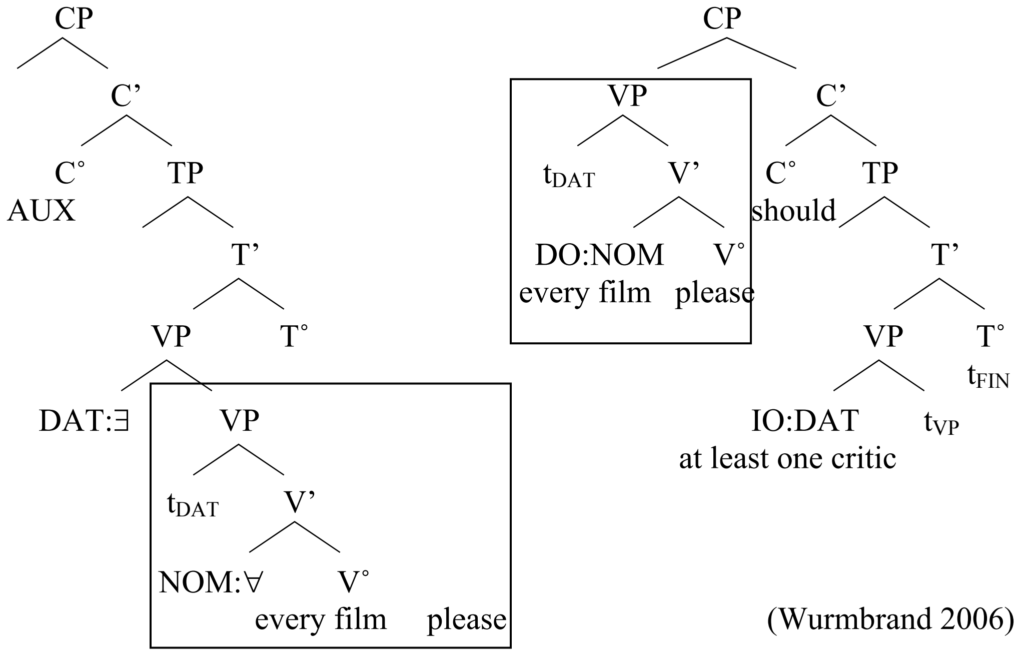
b. *Þess vegna virðast [að mati hvers annars] vera einhverjir umsækjendur.Nom hæfir.
therefore seem to judgment each other to.be some applicants.Nom qualified
'Therefore, some applicants seem to be competent in each other's opinion.'
(Wurmbrand 2006:14, modified from Jónsson 1996)

In the examples in (33) it seems that at LF the Nominative remains inside of the VP in which it was introduced. The absence of interpretations in which the Nominative takes wider scope suggests that it never moved to Spec,TP. Wurmbrand (2006) makes similar observations for German. The sentence in (34) contains a fronted VP. However, the Nominative cannot scope over the Dative.

(34) German
?[Jeder Film gefallen $]_{XP}$ sollte mindestens einem Kritiker
[every.Nom film please $]_{XP}$ should at.least one.Dat critic
'At least one critic should like every movie.' $\exists > \forall$ / $*\forall > \exists$
(Wurmbrand 2006)

In (34), the VP has been fronted and the entire VP obligatorily reconstructs to its base position, as shown in (35).

(35) a. Base structure at LF b. VP/V' fronting



(Wurmbrand 2006)

The Nominative in (35) cannot move out of the reconstructed VP, and thus, it cannot scope higher than the Dative. The frozen scope in (34) and (35) is in contrast to the (somewhat) ambiguous scope in (36), in which the VP has not been fronted.

(36) German
weil mindestens einem Kritiker jeder Film gefallen sollte
since at-least one.Dat critic every.Nom film please should
'since at least one critic should like every movie.'
$\exists > \forall$ / $?\forall > \exists$
(Wurmbrand 2006)

For independent reasons, fronting the VP results in scope freezing. The crucial observation here is that for sentences such as (34), at LF the Nominative resides in a VP internal position. This example makes the same point as the Icelandic ones in (33): if the Nominative had covertly moved to Spec,TP for case-checking, there should be an interpretation in which the Nominative scopes higher than the Dative in (34). Following Chomsky (2000), Wurmbrand (2006) assumes that Agree is responsible for all feature-checking operations. Further, she concludes that Agree does not force movement. If a subject moves to Spec,TP, it is to satisfy the Extended Projection Principle (EPP), not to receive case. The larger point is that Agree is responsible for case assignment, and that case assignment does not necessarily induce movement.

2.2.2. Agreement and Agree

In addition to being responsible for case assignment, Agree is also assumed to be responsible for the checking or valuation of agreement features. For instance, in their account of the variation in number agreement in Icelandic, Sigurðsson and Holmberg (2008) provide a derivational analysis which utilizes Agree. Sigurðsson and Holmberg (2008) propose that the functional head responsible for number agreement is distinct from T and number agreement depends on whether the Dative intervenes between the number head and the Nominative at the point in the derivation at which the number head probes the Nominative. The crucial component of Sigurðsson and Holmberg's (2008) analysis is that there is a timing difference in ordering of movement operations. When the Dative raises out of the probing domain before the Number head probes the Nominative, there is agreement. Conversely, when the Number head probes the Nominative before the Dative has raised out of the probing domain, then agreement is blocked.

In addition to reporting the agreement variation, Sigurðsson and Holmberg (2008) make another key observation. A Dative in the higher clause may or may not block agreement, while a Dative in the lower clause necessarily blocks agreement. Sigurðsson and Holmberg (2008) and Jónsson (p.c.) report that there is no variation in constructions such as (37). In (37), the Nominative is the object of the embedded infinitival and it cannot trigger agreement on the matrix verb.

(37) Mér hefur/*hafa virst [mönnunum líka þessir sokkar]
me.Dat have.3sg./*3pl seemed [the men.Dat to like these socks.Nom]
'It has seemed to me that the men like these socks.' (Jónsson, p.c.)

On Sigurðsson and Holmberg's (2008) account, agreement is never allowed in (37) because the Dative *mönnunum* is an argument of the lower verb and, thus, cannot raise out of the probing domain of the Number head in the higher clause. Therefore, the Dative necessarily intervenes when probing occurs.

Sigurðsson and Holmberg (2008) also propose an independent head responsible for checking person features. Since only a third person post-verbal Nominative can trigger agreement, Sigurðsson and Holmberg (2008) argue that the person head cannot check person on a post-verbal Nominative. This account provides a way to handle the dissociation between case and agreement. Nominative is assigned by T, while agreement is assigned by separate heads. However, in Chapter 3, I argue that this analysis does not adequately account for the asymmetry between Nominative assignment and number agreement, nor for the asymmetry between person and number features.

An alternative explanation of the necessary blocking effect in (37) is that the Dative is a defective intervener. The key intuition is that even though a DP has had its features checked and does not seem to be a suitable goal for a probe, its presence blocks the probe from entering into an Agree relation with another goal, as stated in Chomsky's (2000) definition of defective intervention in (38).

(38) Defective Intervention Constraint

$$\begin{tikzcd}\alpha \arrow[rr, bend right] & > \beta > & \gamma\end{tikzcd}$$

(*AGREE (α,γ), α is a probe and β is a matching goal, and β is inactive due to a prior Agree with some other probe.)

(Chomsky 2000:123)

The embedded Dative in (37) is arguably defective because it has its features checked in the lower clause, since the lower Dative is an argument of the embedded verb. Therefore, it should be inactive and not visible as a goal for the higher T. The blocking effect would come about because, in essence, the matrix T "sees" the Dative. However, even though T° cannot value the features of the Dative, T cannot look past the Dative to value the features of the Nominative.

The exact details of what it means to be defective have been debated in the literature (Bobaljik 2008, Boeckx 2008, Broekhuis 2007). The statement in (38) describes the observation that some DPs seem to block agreement, but it does not derive that observation. As such, some researchers have argued against the concept of defective intervention. In particular Broekhuis (2007) proposes that intervening Datives that block agreement are actually active. Broekhuis observes that Dutch constructions with Dative interveners do not display the blocking effect found in Icelandic. The Dutch example in

(20) is repeated below in (39), the intervening Dative does not block agreement between the verb *lijken* 'seem' and the post-verbal Nominative 'charts'.

(39) Dutch
Daarom lijken Jan/hem de grafieken niet te kloppen.
Therefore seem.pl Jan/him.Dat the charts.Nom.pl not to be-correct
'Therefore, the charts seem to be wrong to Jan/him.' (Broekhuis 2007)

On Broekhuis's (2007) account, the difference between Icelandic and Dutch is that Icelandic has quirky Datives, while Dutch does not, as Dutch does not have Dative subjects. Broekhuis (2007) follows Chomsky's (2000) proposal that quirky case is a theta-related inherent case that also has a structural case feature. Because quirky Dative subjects have a structural case feature, they must be in an Agree relation with T. Therefore, Quirky subjects in Icelandic are still active when T is merged, even though they have already been assigned non-structural case. By contrast, in Dutch, Datives are no longer active when T is merged, so they are not blockers. The blocking effect in Icelandic arises because T probes the Dative and cannot go any further. Since Datives do not trigger agreement, the features of the Dative do not appear on the verb. This account has more intuitive appeal than a defective intervention account because an active DP is a blocker, as opposed to an inactive DP. However, this analysis does not take into account the variation reported by Sigurðsson and Holmberg (2008). In order to reconcile Broekhuis's (2007) account with the reported dialect differences, it would have to be the case that sometimes an active DP is a blocker and sometimes it is not. Even if there is a difference akin to Broekhuis's (2007) proposal which distinguishes Icelandic from Dutch, such a proposal does not account for the variation in Icelandic.

Additionally, there is a larger gap in Broekhuis's (2007) analysis. It is not clear why the Dative in (37) would still be active when the higher T is merged. Since the

Dative is an argument of the lower verb, its quirky feature should be checked in the lower clause, rendering the Dative inactive. We, therefore, expect sentences like (37) to behave like the Dutch examples, but it is precisely in these constructions in which there is no dialectal variation; the lower Dative necessarily blocks agreement. So, the question remains as to whether intervening Datives in constructions such as (37) are defective. On the one hand, it seems counter-intuitive that a DP which is not a suitable goal for a probe should be a blocker. On the other hand, it is clear that the position of the Dative is relevant, and that may be related to whether or not the Dative is active. A better approach is argued for in Chapters 3 and 4. Here the concept of defective intervention is rendered irrelevant because the blocking is derived from locality conditions on Multiple Agree. Though I argue against the idea that Datives are defective interveners, a weaker form of the defective intervention problem does emerge on my account. I argue that items which intervene between T and the Nominative potentially block an Agree relation. On my account, interveners include expletives, and clause boundaries, as well as Datives. As we will see, the crucial distinction between my account and a defective intervention account is that my account allows for an intervening item to optionally block agreement, contra a defective intervention account in which intervening (inactive) items are necessarily blockers.

2.2.3. Dative Subjects are Subjects and Nominative Objects are Objects

At this point, it is worth emphasizing that non-Nominative subjects in Icelandic are real subjects, not fronted objects. Unlike closely related languages such as German and Dutch, in Icelandic, Dative subjects pattern like Nominative subjects. Several researchers – notably Jónnson (2003) and Zaenen, Maling, and Thráinsson (1985) **-** have illustrated that Dative subjects in Icelandic pass myriad tests for subjecthood. One such test discussed in Zaenen, Maling, and Thráinsson (1985) is topicalization.[9] Since Icelandic is a verb second language, subjects appear after the finite verb when another constituent is topicalized. If an object is topicalized, there can be no additional topicalization. In (40)a, the object *refinn* 'the fox' has been topicalized, which prevents the prepositional phrase from also being topicalized in (40)b.

(40) a. Refinn skaut Ólafur með þessari byssu.
the-fox.Acc shot Olaf.Nom with this shotgun
'The fox, Olaf shot with this shotgun.'

b. *Með þessari byssu skaut refinn Ólafur
with this shotgun shot the-fox.Acc Olaf.Nom
'With this shotgun, the fox Olaf shot.'
(Zaenen, Maling, and Thráinsson 1985:450)

In direct questions, the subject follows the tensed verb, as in (41)b, the question counterpart to (41)a. As shown in (41)c, topicalization is not possible with a direct question; a topicalized constituent cannot follow the verb.

(41) a. Sigga hafði aldrei hjálpað Haraldi.
Sigga.Nom had never helped Harold. Dat
'Sigga had never helped Harold.'

b. Hafði Sigga aldrei hjálpað Haraldi.
Had Sigga.Nom never helped Harold. Dat
'Had Sigga never helped Harold?'

c. * Hafði Haraldi Sigga aldrei hjálpað.
Had Harold. Dat Sigga.Nom never helped
'Had Harold Sigga never helped?'
(Zaenen, Maling, and Thráinsson 1985:450)

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[9] Other subjecthood tests discussed in Zaenen, Maling, and Thráinsson (1985) include raising, coreference with PRO, reflexivization, extraction, indefinite subject preposing, and subject ellipsis.

Conversely, non-Nominative subjects, unlike topics, can follow the verb, as in (42)a. In (42)b, the Dative *henni* inverts with the finite verb, while in (42)c, the Nominative *Ólafur* cannot invert with the finite verb.

(42) a. Hefur henni alltaf þótt Ólafur leiðinlegur?
has she.Dat always thought Olaf.Nom boring.Nom
'Has she always thought Olaf boring?'

b. Ólafur hefur henni alltaf þótt leiðinlegur?
Olaf.Nom has she.Dat always thought boring.Nom
'Olaf, has she always thought boring?'

c. *Hefur Ólafur henni alltaf þótt leiðinlegur?
has Olaf.Nom she.Dat always thought boring.Nom
'Has Olaf, she always thought boring?'
(Zaenen, Maling, and Thráinsson 1985:450)

Likewise, Nominative objects pattern like Accusative objects. Evidence from object shift suggests that both Nominative objects and Accusative objects in Icelandic obey Holmberg's Generalization (Holmberg 1986, 1999), which states that object shift is allowed only when a verb moves. In (43)a, the Nominative object resides in a low position inside the VP, as evidenced by the string of preceding adverbs and negation. In (43)b, on the other hand, the verb has moved to C and the Nominative object immediately follows it.

(43) [10]a. Non-shifted Nominative Object
Henni hafa því sennilega ekki leiðst þeir um kvödið.
her.Dat have thus probably not bored they.Nom in evening.the
'She has probably not been bored by them in the evening.'

b. Shifted Nominative Object
Henni leiddust þeir því sennilega ekki um kvödið.
her.Dat bored they.Nom thus probably not in evening.the
'She has probably not been bored by them in the evening.' (Boeckx 2008)

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[10] The verbs *hafa* and *leiddust* appear in the agreeing (plural) form in **???**, but the non-agreeing forms *hefur* and *leiddist* are also allowed.

The Accusative objects in (44) pattern in the same way. In (44)a the object resides fairly low inside the VP and in (44)b , the verb has shifted and the object immediately follows it.

(44) a. Non-shifted Accusative Object
Hún hefur því sennilega ekki hitt þa um kvödið.
she.Nom has thus probably not met them.Acc in evening.the
'She has probably not met them in the morning.'

b. Shifted Accusative Object
Hún hitt þa því sennilega ekki um kvödið.
she.Nom met them.Acc thus probably not in evening.the
'She probably did not meet them in the morning.' (Boeckx 2008)

Given the patterns in (40) through (44) we can deduce that just as the Dative is in the canonical subject position, Nominative is assigned to objects in a VP-internal position, just as Accusative is also. The crucial point to keep in mind is that Nominative objects have a case relationship with T, even though Nominative objects do not necessarily have an agreement relationship with T.

2.2.4. Revisions to Agree

Another way to account for the division between case and agreement is to redefine the operation Agree. As discussed in Section 2.1.3, Bhatt (2005) argues that in Hindi-Urdu, an object in an embedded infinitival can receive its case in the lower clause and trigger agreement in the higher clause. As repeated in (45), both the participle and the main verb in the root clause agree with the embedded object *tehnii* 'branch'.

(45) Hindi-Urdu
Shahrukh-ne [tehnii kaat -nii] chaah-ii thii
Shahrukh-Erg branch.Fem. cut-Inf.Fem. want-Pfv.Fem. be.Pst.Fem.Sg
'Shahrukh had wanted to cut the branch.' (Bhatt 2005)

In order to capture the dissociation of case and agreement, Bhatt (2005) proposes that a head can enter into an Agree relationship with a DP whose case it does not license. Therefore, in (45) 'branch' enters into two Agree relationships. The relationship with the embedded *v* values its Accusative case (which is not morphologically marked), while the relationship with the matrix T triggers agreement on the verb.

The standard assumption is that a potential goal needs to be active, meaning that it has not entered into prior Agree relationships. If the object in (45) receives case from the embedded *v*, it should, therefore, be inactive and unavailable to enter into an Agree relationship with the matrix T°. Bhatt (2005) proposes a new operation – AGREE, defined in (46) – in which a head can enter into a relationship with an inactive goal.

(46) AGREE is the process by which a head X° with unvalued uninterpretable features (the Probe) identifies the closest Y°/YP in its c-command domain with the relevant set of visible matching (i.e. nondistinct) interpretable features (the Goal), and uses the interpretable features of Y°/YP to value its uninterpretable features. (If the Probe is φ-complete and the Goal has unvalued uninterpretable features, the Probe values and deletes these features.) (Bhatt 2005)

While the crux of Bhatt's (2005) proposal is that goals need not be active in order to enter into an Agree (or AGREE) relationship, the other theoretical point made is that more than one head can probe the same goal. Bhatt's (2005) proposal is similar to Hiraiwa's (2001) proposed operation Multiple Agree in that the probe-goal relationship is not necessarily one-to-one. While Bhatt's (2005) AGREE operation allows for a single goal to be in a relationship with more than one probe, Hiraiwa's (2001) Multiple Agree operation allows for a single probe to be in a relationship with more than one goal, as defined in (47).

(47) MULTIPLE AGREE/MOVE
MULTIPLE AGREE (multiple feature checking) with a single probe is a single simultaneous syntactic operation; AGREE applies to all the matched goals at the same derivational point derivationally simultaneously. MULTIPLE MOVE (movement of multiple goals) is a simultaneous syntactic operation that applies to all the AGREEd goals.
(Hiraiwa 2001, EX 7)

Hiraiwa's (2001) proposal is designed to account for Japanese constructions in which there is more than one Nominative in a clause. In the sentences in (48), both the root and embedded clauses contain double Nominatives and the operation in (47) allows for T to assign Nominative to more than one DP.

(48) a. Mary-ga eigo-ga/*wo yoku dekiru.
Mary-Nom English-Nom/*Acc well do-can-Pres
'Mary can speak English well.'

b. John-ga [$_{CP}$ [$_{TP}$ Mary-ga eigo-ga yoku dekiru] to] omoikondei-ta.
John-Nom Mary.Nom English.Nom well do-can-Pres Comp falsely-believe-past
'John falsely believed that Mary can speak English well.'
(Hiraiwa 2001, EX 16)

In an analysis of control in Icelandic, Ussery (2008) also proposes a version of Agree which allows for a probe to have more than one goal. As discussed in Section 2.1.5, in control constructions in Icelandic, the lower clause adjective necessarily bears the phi features of the controller, but optionally bears the case of the controller, as repeated below in (49).

(49) Icelandic
hana$_i$ langar til að PRO$_i$ vera vinsael/vinsaela
she.Acc.fem.sg. longs towards to Nom/Acc to-be popular.Nom.fem.sg./Acc.fem.sg.
'She longs to be popular.' (Andrews 1982:26)

The crux of the analysis is that phi features are always transmitted from the controller to PRO via an Agree relationship. However, the functional head that assigns case to the controller optionally assigns case to PRO. Since (49) contains a non-Nominative matrix subject, case is assigned by a non-structural case-marking head, which may probe PRO in addition to probing *hana*. Ussery's (2008) definition of Agree is in (50).

(50) **Agree:** A higher head X° or phrase XP values the features of the closest Y°/YP that has unvalued features. X°/XP optionally values the features of a farther away Z°/ZP that bears the same index as Y°/YP iff Z°/ZP is visible for feature valuation. Agree between X°/XP and Z°/ZP is licensed only if there is no intervening head or phrase that bears an index distinct from Z°/ZP.

(Ussery 2008)

The point made by Bhatt's (2005) and Ussery's (2008) analyses in particular is that they both illustrate that the standard conceptualization of Agree does not adequately handle the division between case and agreement.

2.3. Case and agreement as post-syntactic operations

Recent work has challenged the long-held assumption that case and agreement features are assigned in the syntax. Two prominent proposals along this line are McFadden (2004, 2006) and Bobaljik (2008). Building on Marantz (1991), McFadden argues that case is post-syntactic. Bobaljik (2008) goes a step further in arguing that both case and agreement are post-syntactic. What both of these researchers mean by post-syntactic is that case and agreement do not drive syntactic operations and do not feed LF. In essence, on these accounts, neither case nor agreement motivates movement or contributes to the meaning of the relevant proposition. Since Agree is a syntactic operation, the implicit assumption on this type of account is that neither case nor agreement is determined via Agree. On both of these proposals, even though case and agreement are not determined in the syntax, the syntactic structure is still visible to the operations that apply at PF.

2.3.1. McFadden (2004, 2006)

McFadden (2004, 2006) proposes that morphological case features are determined via a post-syntactic algorithm. In particular, McFadden (2004, 2006) argues that Nominative is necessarily a default case and is realized only when another case value could not be realized. In Nominative-Accusative case systems, McFadden proposes that Accusative is realized on a DP only if it is c-commanded by a DP that is merged in Spec,*v*P.

One of McFadden's (2004, 2006) goals is to explain case dependencies – the fact that Accusative and Ergative generally appear in the presence of Nominative and Absolutive, respectively. However, on McFadden's (2004, 2006) system, it is not necessary that Nominative or Absolutive be expressed. The crucial point is the structural relationship between two DPs. As we see in (51), there is not an overtly marked Nominative DP, yet the object *Fußballgott* 'football god' is Accusative.

(51) German
Es gibt einen Fuβballgott
it gives a football-god:Acc
'There is a god of football.' (McFadden 2004)

The interesting thing about (51) is that McFadden (2004) argues that the expletive is merged in Spec,*v*P. Expletives are usually argued to be merged in Spec,CP in German to satisfy the German V2 requirement. Generally, expletives disappear in non-V2 environments, such as inverted questions, as in (52)b.

(52) German
a. Es wird heute getanzt
it becomes today danced
'There will be dancing today!'

b. Wird (*es) heute getantzt?
becomes (*it) today (*it) danced
'Will there be dancing today?' (McFadden 2004)

However, in *es gibt* constructions, the *es* cannot disappear in inverted questions, just as it cannot disappear in weather constructions, as in (53).

(53) German
a. Gibt *(es) einen Fuβballgott?
gives *(it) a football-god.Acc
'Is there a god of football?'

b. Hat *(es) geregnet?
has *(it) rained
'Did it rain?' (McFadden 2004)

McFadden (2004) takes this difference between the standard expletive and the *es gibt* expletive as evidence of a structural difference, namely that the *es gibt* expletive is merged in Spec,*v*P. Since *es* is merged in Spec,vP in (51), it c-commands the object, which means that Accusative is realized on the object.

McFadden's (2004) proposal can also explain the appearance of Accusative in (54). Here, PRO is merged in Spec,*v*P.

(54) German
PRO so einen Lärm zu machen ist extrem unhöflich.
PRO such a noise:Acc to make is extremely impolite
'It is extremely impolite to make so much noise.' (McFadden 2004)

McFadden's larger point is that exactly which DP is merged in Spec,*v*P is irrelevant. The fact that any DP is merged there is sufficient to force the object to be spelled out as Accusative. It should be noted that McFadden's proposal is distinct from Burzio's Generalization (2000), which states that Accusative is assigned to a DP only when there is another DP which is the external argument of the verb. For McFadden (2004,2006), the licensing of Accusative is independent of the thematic properties of the subject. Expletives are not external arguments. Yet, as we saw in (51), the fact that the expletive is merged in Spec,*v*P is what licenses Accusative on the object.

The sentences in (53)a and (54) can be contrasted with the one in (55), in which the object is Nominative.

(55) German
In diesem Zimmer bleibt nur noch ein Linguist.
in this room remains only still one linguist.Nom
‘In this room there’s only one linguist left.’ (McFadden 2004)

In (55), the PP topic is arguably merged in Spec,CP. Since no DP is merged in Spec,*v*P, Accusative cannot appear.

Likewise, in constructions with Dative subjects, such as (56), McFadden (2004) argues that Nominative appears on the object because no DP is merged in Spec,*v*P.

(56) Icelandic
Henni leiðist Haraldur/*Harald.
her.Dat bored Harald.Nom/*Acc
‘She was bored by Harald.’ (McFadden 2004)

For McFadden (2004), non-structural cases do not participate in the case algorithm. For sentences such as (56), McFadden (2004) proposes that the Dative is merged in Spec, $v\mathrm{P}_{\mathrm{applic}}$.[11] DPs merged in this position are irrelevant for case determinations. The crucial point is that Accusative appears on an object only when a DP is merged in Spec,*v*P of the same clause.

Even though case is determined post-syntactically, McFadden (2004) adopts the standard locality conditions on case assignment. In his system, decisions about case are determined within phases and at their edges. On this approach, the morphology “looks” at the positions of DPs, and their copies, that are within a phase. For instance in (57)a, the subject *er* ‘he’ has raised, but because *er* was merged in Spec,*v*P in the lower clause,

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[11] Many analyses of case assume that there are many varieties of *v* and that DPs which receive non-structural case are merged in the specifier of a specialized *v*P. $v\mathrm{P}_{\mathrm{applic}}$ differs from *v*P in that v_{applic} does not assign structural accusative. Other flavors of *v* include $v_{\mathrm{unaccusative}}$ and v_{Dative}.

the embedded object is realized as Accusative. In (57)b the embedded subject is at the edge of the lower clause, so it is in the same domain as the higher subject, and is, therefore, realized as Accusative.

(57) German
a. Er scheint *ich/mich zu sehen.
he.Nom seems *I.Nom/me.Acc to see
'He seems to see me.'

b. Ich sah *er/ihn ankommen.
I.Nom saw him.*Nom/Acc arrive
'I saw him arrive.' (McFadden 2004)

One of the key components of McFadden's (2004/2006) proposal is that Accusative is licensed within a particular structural configuration, but Nominative is not. Nominative is never actually licensed; a DP is spelled out with Nominative only if another case value could not be spelled-out. This system has the benefit of potentially explaining the fact that Nominative often appears as a default case cross-linguistically. In each of the sentences in (58), a fronted DP displays Nominative.

(58) a. Der/*Dem Hans, mit dem spreche ich nicht mehr. German
the.Nom/*Dat Hans with him.Dat speak I not more
'Hans, I don't speak with him anymore.'
b. Vanja/?Vanju, ego ja ne ljublju. Russian
John.Nom/?Acc him.Acc I don't like
'John, I don't like him.'
c. al-kitaab-u qara?t-u-hu. Arabic
the-book-Nom read-1sg-it
'The book, I read it.'
d. Strákarnir, við þá hafði aldrei verið talað. Icelandic
boys-the.Nom with them.Acc had never been spoken
'The boys, they had never been spoken with.'
(McFadden 2006)

There is presumably no source for Nominative case for these fronted DPs. In none of these examples does the resumptive pronoun display Nominative, so there cannot be some kind of case sharing relationship. Nor are the Nominatives in the right structural configuration with T (on the standard account). On McFadden's (2006) account, Nominative surfaces simply because another case could not be spelled out in these environments.

However, it does not necessarily follow that because languages tend to prefer Nominative as a default that Nominative is never assigned by T. Schütze (2001) also discusses situations in which it appears as if case has not been assigned in the syntax. However, on Schütze's (2001) proposal, these situations are exceptional. The normal state of affairs is that case is assigned in the syntax. When case cannot be assigned in the syntax, such as in the constructions in (58), default case surfaces. Which case is the default varies according to language, with Nominative as the predominant default specification. For McFadden (2004/2006), Nominative has fewer feature specifications than other cases, causing it to surface as the default because it is the least marked. This idea could be on the right track, but this does not necessarily mean that the only time Nominative appears is in the absence of another possible case. It could be that Nominative is assigned by T, but when this cannot happen, Nominative surfaces as a default, as proposed by Schütze (2001).

Additionally, there are examples which suggest that Nominative is not always the default specification. In English, the default appears to be Accusative. The pronoun in (59)a is Nominative, while the pronouns in (59)b/c are Accusative.

(59) a. I am vulgar.
b. Me, I like beans.
c. The real me is vulgar. (McFadden 2006)

McFadden (2006) is forced to say something special about pronouns in English in order to explain this contrast. McFadden (2006) proposes that Nominative in English is possible for pronouns that are maximally close to finite T. In (59)b, the pronoun is not sufficiently close to T° and in (59)c, the modifier blocks Nominative. On this approach, since the Nominative in English requires a special condition, it is not the default for pronouns. McFadden (2006) suggests that the pronouns in (59)b/c have an oblique case, not Accusative, since they are not in the appropriate configuration in which he proposes that Accusative is licensed. It seems that this additional stipulation could be avoided if we adopt a Schütze-like (2001) approach in which Accusative is simply the default case in English and appears on DPs which have not received a case value in the syntax. Additionally, it is not clear how McFadden's (2006) locality condition on pronouns is actually distinct from saying that T assigns Nominative.

2.3.2. Bobaljik (2008)

Bobaljik (2008) adopts McFadden's basic idea that morphological case assignment is not a part of core syntax. Drawing on the fact that Nominative objects in Icelandic agree, Bobaljik (2008) highlights the fact that agreement tracks case and not grammatical function. The crux of Bobaljik's (2008) argument is that since case is post-syntactic, and agreement tracks case, then agreement must also be post-syntactic.

Just as McFadden (2004/2006) proposes that post-syntactic case assignment obeys locality conditions determined by phases, Bobaljik (2008) proposes that agreement is also established within phases. Bobaljik's (2008) core agreement generalization is stated in (60).

(60) The finite verb agrees with the highest accessible NP in its domain.
(Bobaljik 2008)

For Bobaljik (2008), accessible NPs are the ones that are allowed to trigger agreement and accessibility is determined by morphological case. Therefore, Nominatives are accessible while Datives are not. For Bobaljik (2008), a domain is defined in (61).

(61) An agreement domain [is] the clause plus the next clause down.
(Bobaljik 2008)

On this account, agreement is established either when the verb and the NP are in the same clause, or when the NP is at the edge of an embedded clause. Therefore, agreement can be established across an intervening Dative in constructions such as (62) because the Dative is not accessible and the Nominative is at the edge of the lower clause.

(62) Icelandic
Það mundi/mundu alltaf einhverjum stúdent virðast [þessi próf óréttlát]
there would.3sg/3pl always some student.Dat seem [these exams.Nom.pl unfair]
‘It always seems to some student that these exams are unfair.’
(Sigurðsson and Holmberg 2008)

For constructions in which the Dative is in the lower clause, such as (63)a, Bobaljik (2008) argues against a defective intervention effect. Since defective intervention is argued to block syntactic operations, and since agreement is not the product of a syntactic operation, Bobaljik (2008) proposes that what looks like an intervention effect can be reduced to locality conditions that hold at PF. Bobaljik offers two proposals to explain the contrast in (63). As discussed in Section 2.2.2, in constructions such as (63)a, there cannot be agreement across an overt Dative that is in the lower clause. However, as discussed by both Schütze (1997) and Watanabe (1993), agreement can occur across the trace of a Dative that is in the lower clause, as shown in (63)b.

(63) Icelandic[12]

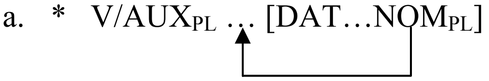
a. Mér $^{?}$*virðast/virðist [Jóni$_i$ vera taldir t$_i$ líka hestarnir.]
Me.Dat seemed.pl/seemed.sg J.Dat be believed.pl like horses
'I perceive Jon to be believed to like horses.'

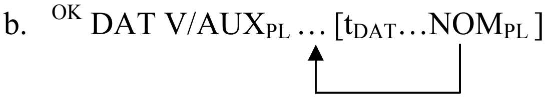
b. Jóni$_i$ virðast/ ?*virðist [t$_i$ vera taldir t$_i$ líka hestarnir.]
J.Dat seemed.pl/seemed.sg be believed.pl like horses.Nom
'Jon seems to be believed to like horses.'
(Bobaljik 2008, from Schütze 1997:108-109)

This contrast is known as the Schütze-Watanabe effect. According to the principle in (60), the Dative in (63)a should be invisible for the purposes of agreement. Since the Dative is not accessible for agreement, it should not be a blocker. Bobaljik's (2008) first proposal is that there is a domain boundary in (63)a that is not present in (63)b. The sentence in (63)b is a restructuring infinitive and, therefore, not a full clausal complement. The sentence in (63)a, on the other hand is a full clausal complement. This proposal is consistent with the general claim that restructuring allows long distance agreement (see Bhatt 2005, Bobaljik and Wurmbrand 2005, Wurmbrand 2001 for discussion).

The second proposal is that the Nominative in (63)b covertly moves into the higher clause, while in (63)a the lower Dative blocks the Nominative from covertly moving, as schematized in (64).

(64) Agreement in Icelandic


a. * V/AUX$_{PL}$ … [DAT…NOM$_{PL}$]


b. ^{OK} DAT V/AUX$_{PL}$ … [t$_{DAT}$…NOM$_{PL}$]

(Bobaljik 2008)

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[12] My consultations with native speakers reveal that the singular form is allowed in (63)b. This is consistent with the general pattern that the non-agreeing form of the verb is allowed when there is a post-verbal Nominative.

This covert movement proposal is based on facts about the availability of movement in *seem* constructions. *Seem* in Icelandic obligatorily forces raising when there is no matrix experiencer, as in (65)a. When there is a matrix experiencer, an embedded Nominative cannot move over it. In (65)b/c, the embedded Nominative cannot move over the matrix Dative. The Nominative has to remain in the lower clause, as in (65)d.

(65) Icelandic
a. Hafði Ólafur$_i$ virst [t$_i$ vera gáfaður]?
has Olaf.Nom seemed to.be intelligent
'Did Olaf seem intelligent?'

b. * Hafði Ólafur$_i$ þeim virst [t$_i$ vera gáfaður]?
had Olaf.Nom them.Dat seemed to.be intelligent
'Did it seem to them that Olaf was intelligent?'

c. * Hafði Ólafur$_i$ virst þeim [t$_i$ vera gáfaður]?
had Olaf.Nom seemed them.Dat to.be intelligent

d. Hafði þeim virst [Ólafur vera gáfaður]?
had them.Dat seemed Olaf.Nom to.be intelligent
(Bobaljik 2008)

Holmberg and Hróarsdóttir (2003) observe that when a matrix experiencer moves to Spec,CP – i.e., when it is a WH-Dative – an embedded Nominative can move over the WH trace into the higher clause, as shown in (66) .

(66) Icelandic
a. Hverjum hefur Ólafur$_i$ virst t$_{wh}$ [t$_i$ vera gáfaður]?
who.Dat has Olaf.Nom seemed to.be intelligent
'Who has found Olaf intelligent?'

b. Hverjum hafa strákarnir$_i$ virst t$_{wh}$ [t$_i$ vera gáfaðir]?
who.Dat have.pl boys-the.Nom seemed to.be intelligent
'Who has found the boys intelligent?'
(Bobaljik 2008, from Holmberg and Hróarsdóttir 2003)

Bobaljik's (2008) argument is that since a Nominative can overtly move over a trace in (66), then it is reasonable to assume that a Nominative can covertly move over a trace in (63)b. However, we do not have evidence that the Nominative moves into the higher clause. We would expect there to be scope facts which show that the Nominative in (63)b is interpreted higher than the embedded verb, but there is no evidence of this prediction being confirmed. The larger problem for this proposal is that it is not clear what would motivate the movement of the Nominative in (63)b. Bobaljik's (2008) key argument is that the agreement does not feed syntactic operations. However, on this proposal, it seems that the Nominative would be moving strictly for the purpose of being close enough to the verb to trigger agreement, but this type of movement is precisely what should not be motivated.

The restructuring account seems like a more plausible approach, and it might also explain dialectal variation in constructions such as (63)b, which Bobaljik (2008) does not discuss. Not all speakers allow agreement for constructions like (63)b, and it could be that these speakers do not allow restructuring. If this is the case, then Icelandic differs from German. Wurmbrand (2001) and Bobaljik and Wurmbrand (2005) argue that restructuring is obligatory with raising verbs. However, if the absence of agreement implicates the absence of restructuring, then speakers who do not allow agreement in (63)b do not allow restructuring with *seem*. While it may be that Icelandic and German differ with respect to obligatory restructuring with raising verbs, the restructuring analysis does not account for the cases in which agreement is not allowed in monoclausal constructions with Dative subjects and Nominative objects. Bobaljik (2008) reports that agreement is obligatory in these constructions. However, as we have seen from the data reported by Sigurðsson and Holmberg (2008), and as we will see in Chapter 4, agreement with Nominative objects is not obligatory. Since a restructuring account could only address agreement in bi-clausal constructions, there must be an alternative explanation which would cover both mono-clausal and bi-clausal constructions.

Irrespective of the details of Bobaljik's (2008) account of how agreement is established at PF, there remains a larger issue. Bobaljik's (2008) key insight is that agreement is dependent on case. However, his proposal does not capture this dependency. If both case and agreement features are determined post-syntactically, it is not clear why case is not dependent on agreement. There does seem to be an ordering of operations and if agreement is dependent on case, then case must be determined first. On the analysis proposed in Chapters 3 and 4, the case and agreement features on T probe independently. It is, therefore, possible for the agreement feature to probe before the Nominative feature. However, derivations with this ordering of operations necessarily crashes because the agreement head can only establish an Agree relation with a DP that is a Nominative case value.[13]

2.4. Theoretical Assumptions: Case and Agreement Features are Established in the Syntax

The analysis presented in this dissertation assume that case and agreement features are established in the syntax via Agree. The arguments against case being in the syntax come from evidence which challenges traditional assumptions about the role of case. As discussed in Section 2.3.1, there is evidence that case does not necessarily drive movement. As we have seen from the Icelandic data, case and grammatical functions do not necessarily coalesce, as evidenced by constructions with Dative subjects and Nominative objects. Additionally, work on control has challenged the long-held

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[13] In Chapter 5, I return to the issue of ordering case and agreement operations and I suggest that it is possible for agreement to be established before case, with the outcome being the same.

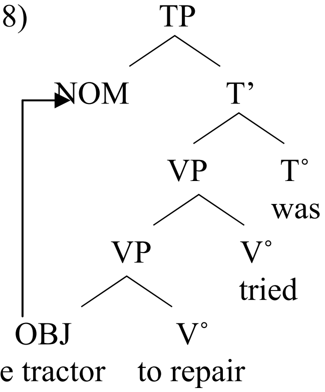
assumption that PRO either cannot bear case or bears only a specialized case. Evidence from concord with predicate adjectives (as discussed in Section 2.1.5) and from floated quantifiers in control constructions (see Sigurðsson 1991) suggests that PRO bears whatever cases overt lexical subjects bear. The argument against case being established in the syntax is something to the following effect: We used to think that case was responsible for certain things such as driving movement, correlating with grammatical function, and explaining the distribution of null versus overt DPs. Since we now have evidence that case does not do these things, then we have reason to question whether case is established in the syntax.

One piece of evidence that case is indeed a part of core syntax comes from lexical restructuring. According to Wurmbrand (2001), there are two types of restructuring. Lexical restructuring is always optional and involves control infinitives while functional restructuring is required and involves modals and raising infinitives. The sentences in (67) provide two variants of a long passive construction in German. In the restructuring example in (67)a, the embedded object *der Traktor* 'the tractor' bears Nominative, while in the non-restructuring example in (67)b, the embedded object *den Traktor* bears Accusative.

(67) German
a. dass der Traktor zu repairen versucht wurde   Restructuring
that the tractor-**Nom** to repair tried was
'that they tried to repair the tractor'
b. dass den Traktor zu repairen versucht wurde   Non-restructuring
that the tractor-**Acc** to repair tried was
'that they tried to repair the tractor'
(Wurmbrand 2001)

In Wurmbrand's (2001) account of restructuring, the crucial difference between (67)a and (67)b is that in (67)a the matrix verb 'try' selects for a bare VP complement, while in (67)b ‘try’ selects for a full clausal complement, either a CP or a TP. Wurmbrand argues in detail that restructuring infinitives lack functional structure. Because the embedded clause in (67)a lacks a *v*P in particular, there is no source for Accusative case for the object. The object, therefore, receives Nominative from the matrix T, as shown in (68).

(68)



(Wurmbrand 2001)

In the non-restructuring example in (67)b, since there is a full clausal complement, there is a *v*P in the embedded clause and the object receives Accusative from *v*. Interestingly, even though we have evidence that case can be assigned under c-command, as discussed in Section 2.2.1, Bobaljik and Wurmbrand (2005) argue that in structures such as (68), the object moves to Spec,TP of the higher clause in order to receive Nominative case. They provide evidence from scope facts which suggest that the object necessarily resides in the higher clause at LF. For instance, in (69) the embedded object *alle Fenster* ‘all windows’ cannot take scope over the matrix verb *vergessen* ‘forget’.

(69) German
weil alle Fenster zu schlieβen vergessen wurden
since all windows.Nom to close forgotten were
‘since they forgot to close all the windows’
literally: since all windows were forgotten to close ∀ > forget / *forget > ∀
(Bobaljik and Wurmbrand 2005)

The sentence in (69) has to mean that "for all windows, each of those windows was forgotten to be closed". In essence, all of the windows remain open. The sentence cannot mean that some of the windows were closed and some were still open.

The crux of Bobaljik and Wurmbrand's (2005) argument is that if the embedded object remained in the lower clause and received its case via an Agree relationship established under c-command, then the interpretation in which the object scopes under the matrix verb should be available. That this reading is absent suggests that the object has moved into the higher clause. Bobaljik and Wurmbrand (2005) propose that the complements to lexical restructuring predicates are necessarily separate agreement domains and that an Agree relationship cannot be established across this domain boundary. Crucially, for Bobaljik and Wurmbrand (2005), Agree does not motivate Move. Move is induced by the inability to establish an Agree relation. Irrespective of the relationship between Agree and Move, the empirical observation remains. In lexical restructuring contexts, the scope facts suggest that the embedded object moves to receive case. This is unexpected according to post-syntactic case assignment accounts. On a post-syntactic account of case, case never feeds syntactic operations.

Additionally, there are larger theoretical reasons to maintain the idea that case is syntactic. Legate (2008) discusses some of these reasons and argues, in particular, against Marantz's (1991) proposal that case is post-syntactic. Legate's (2008) key observation is that post-syntactic accounts of case fail to capture the close relationship between syntactic licensing and morphological case. For the most part, DPs licensed by T (or I) bear Nominative; DPs licensed by verbs bear Accusative; and DPs licensed by nouns bear Genitive or Dative. Additionally, sometimes the case of a DP is selected for by a particular lexical item (e.g., prepositions or post-positions selecting for DPs with particular cases). This is certainly the situation in Icelandic, in which particular verbs select for Dative subjects. Legate's (2008) point is that if case is reduced to a morphological algorithm, then the connection with the syntactic licenser is lost. Legate (2008) acknowledges that abstract case theory does not adequately account for control, but questions the utility of completely doing away with case theory.

Legate's (2008) arguments that agreement should remain a syntactic operation are not as strong, but worth mentioning. Legate's (2008) arguments against agreement at PF center around a discussion of Bobaljik's (2008) proposal. As discussed in Section 2.4.3, Bobaljik's (2008) key claims are that agreement tracks morphological case, not grammatical function, and that the highest "accessible" DP triggers agreement. Legate (2008) takes issue with both of these claims. In Warlpiri, verbs agree with Absolutive arguments. In the Warlpiri sentence in (70), both the subject and the object are Absolutive. The object has been moved to a position higher than the subject, yet the subject triggers gender and number agreement.

(70) Warlpiri
kitaaabẽ anil becegaa
book.fem.pl.Abs. Anil.masc.Abs. sell.future.masc.sg.
'Anil will sell books.' (Legate 2008:92)

Legate (2008) argues Bobaljik's (2008) account predicts that the object should agree, since it is higher in the clause and has the appropriate case value.

Legate (2008) also points out that in some constructions in Punjabi and Marathi, the highest accessible DP fails to trigger agreement. In both languages, verbs agree with Absolutive arguments. In the perfective aspect, first and second person pronouns in A positions are Absolutive (as opposed to the expected Ergative). However, these pronouns do not trigger agreement even when they are the highest Absolutive in the clause. In the Punjabi examples in (71), the verb agrees with the Absolutive object.

(71) Punjabi
a. tũ lakRi vaD-i
you.fem/masc.Abs. wood.fem.sg.Abs. cut.past.fem.sg.
'You(male or female) cut the wood.'

b. tũ kampuTar bech-ia
you.fem/masc.Abs. computer.masc.sg.Abs. sell.past.masc.sg.
'You(male or female) sold the computer.
(Legate 2008:95, from Butt 2005)

Legate's (2008) point is that both (70) and (71) not only undercut Bobaljik's (2008) statement that agreement decisions are based on a "highest accessible" condition, but also undercut the observation that agreement tracks morphological case as opposed to grammatical function. The example in (70) seemingly makes the case for the existence of subject agreement and the example in (71) seemingly makes the case for the existence of object agreement. While Bobaljik's (2008) proposal requires fine-tuning, there is strong evidence that agreement is sensitive to case, and not grammatical function. As we have seen, in Icelandic, objects can be Nominative and can trigger agreement.

Legate's (2008) larger point is that proposals which situate case and agreement at PF do not provide a deeper level of insight into the nature of the grammar than do proposals which situate both in the syntax and I agree with this claim. In fact, there is a level of insight which seems to be lost, particularly with respect to case, since the connection between the case licenser and a DP is mitigated. Additionally, in Chapter 5, I build on Legate's (2008) argument and show that situating agreement at PF requires a redundancy in operations that are, in essence, syntactic.

2.5. Conclusion

In the next two chapters, I draw on data from Icelandic to provide a detailed account of the interrelated, yet separate, nature of case and agreement. Though I argue that case and agreement features are determined in the syntax, post-syntactic morphological processes play a crucial role. I adopt the Distributed Morphology approach, in which the terminal nodes of syntactic derivations are comprised of feature bundles which reflect the information that a lexical item is merged with, as well as the information that is acquired throughout the course of the derivation. Terminal nodes are mapped to pronounceable vocabulary items in the post-syntactic morphological component of the grammar. As we will see, this mapping process draws on syntactic processes, as well as the absence of syntactic processes.

CHAPTER 3

THE SYNTAX-MORPHOLOGY INTERFACE: PERSON AND NUMBER AGREEMENT

3.0. Introduction

The analyses presented in this chapter and the next argue for a division of labor between the syntax and the morphology. Many analyses of agreement conflate syntactic licensing and morphological agreement. Utilizing agreement patterns in Icelandic, I argue that these are distinct, yet inter-related processes. A DP which has its features checked or valued in the syntax does not necessarily trigger agreement. I show that ungrammaticality can follow from violations of syntactic conditions, as well as from violations of morphological conditions.

This chapter addresses person and number agreement in Icelandic constructions with Dative subjects and Nominative objects. As is well-known, person and number behave differently in many languages, with person generally being more restricted. For instance, Baker (2008) notes that cross-linguistically adjectives tend to freely agree with DPs in number, but not person. The particular behavior of person is probably most notably codified in the Person Case Constraint (PCC), as proposed in Bonet (1991). In its most general sense, the PCC captures the fact that in many languages first and second person pronominals are restricted in the environments in which they may co-occur with other DPs.

Icelandic also displays an asymmetry between person and number. Icelandic generally does not allow first or second person Nominative objects, while there is no such restriction on the number feature of a Nominative object. As shown in (72), only a third person Nominative object is allowed, and this object can be either singular, as in (72)b or plural, as in (72)c.

(72) a. *Henni leiddist við/þið.
her.Dat bored.3sg we.Nom.pl/you.Nom.pl
'She found us/you boring.'

b. Henni leiddist hann.
her.Dat bored.3sg he.Nom.sg
'She found him boring.'

c. Henni leiddist/leiddust þeir.
her.Dat bored.3sg/3pl they.Nom.pl
'She found them boring.'

As discussed in Chapter 2, and as shown in (72)c, when the Nominative object is plural, the verb may or may not agree with it in number. Sigurðsson and Holmberg (2008) propose that the optionality in (72)c arises because there are various dialects with respect to number agreement. However, there is not dialectal variation with respect to the structural positions that first and second person DPs may occupy. Therefore, (72)a is simply ungrammatical.

Several analyses have attempted to account for the contrast between person and number in Icelandic by arguing that these features have different syntactic behaviors. For instance, Sigurðsson and Holmberg (2008) propose that person and number are separate functional heads. Along the same line, Alexiadou (2003) argues that person is associated with Tense, while number is associated with Aspect. Additionally, Taraldsen (1995) proposes that first and second person DPs have a structure that is distinct from third person DPs.

Whether Icelandic adheres to the PCC has been a matter of some debate. Sigurðsson (1996, 2006) proposes a Person Restriction which is particular to Icelandic and which describes both the contrast in (72) and the fact that first and second person embedded Nominative subjects are allowed, but they may not trigger agreement on the matrix verb, as shown in (73).

(73)	Honum	mundi/*mundum	virðast	við	(vera)	hæfir.
	him.Dat	would.3sg/*1pl	seem	we.Nom.pl	(be)	competent

‘We would seem competent to him.’

Anagnostopoulou (2005) argues for a unified analysis of the Person Restriction and the PCC based on whether or not there is a feature clash during Multiple Agree.

While I draw on some elements of both the Sigurðsson and Holmberg (2008) account and the Anagnostopoulou (2005) account, I show that neither analysis adequately accounts for the asymmetry between first and second person Nominative objects and first and second person embedded Nominative subjects. My analysis builds on what seems to be an underlying, though unarticulated, assumption present in Sigurðsson and Holmberg’s (2008) account, namely that the failure to check a person feature results in a DP not being licensed.

Additionally, I argue that Multiple Agree is an inherently optional operation, and that constructions such as (72)(10)a are ungrammatical when T probes only the Dative subject, leaving the object with an unchecked person feature. I argue that constructions such as (72)(10)a are also ungrammatical when T probes both the Dative subject and the Nominative object. On this derivation, I propose that when Multiple Agree applies, there is a clash in person features. While Anagnostopoulou (2005) argues that this feature clash is syntactic, I argue that the clash occurs at the point of morphological spell-out. Therefore, on my account, (72)a is ungrammatical because it violates both syntactic and morphological conditions.

By contrast, I argue that constructions such as (73) are grammatical because non-finite T checks the person feature of the Nominative subject, thereby licensing the DP. I show that the default agreement in (73) is the result of finite T probing only the matrix Dative subject. When finite T probes both the matrix subject and the embedded subject, there is a clash in person features and the derivation is ungrammatical. This analysis predicts that if Multiple Agree does not result in a feature clash, then both the mono-clausal and bi-clausal constructions should be grammatical when Multiple Agree applies. I show that this prediction is confirmed. When all features that have been valued via a Multiple Agree relation can be mapped to one morphological form, the derivation is grammatical. This analysis derives the "look-alike" effect that has been reported by Sigurðsson (1996) and Sigurðsson and Holmberg (2008).

Additionally, I show that a PCC-style analysis fails to account for the fact that number agreement with third person Nominative objects and third person embedded Nominative subjects is optional. My analysis derives this optionality from the optionality of Multiple Agree. I argue that when T probes only the Dative, there is default number agreement. However, when T probes both the Dative and the Nominative, there is number agreement with the Nominative. I argue that there is no clash in person features in constructions such as (72)(10)c because neither the Dative nor the Nominative values the person feature on T.

This chapter is organized as follows. Section 3.1 provides an overview of person agreement in Icelandic and outlines Sigurðsson's (1996, 2006) Sigurðsson and Holmberg's (2008) instantiation of the Person Restriction. Section 3.2 lays the theoretical groundwork for my analysis of person and number agreement. Section 3.3 provides an analysis of Dative-Nominative mono-clausal constructions. Section 3.4 provides an analysis of Dative-Nominative bi-clausal constructions. Section 3.5 concludes and sets the stage for Chapter 4, in which I provide a detailed analysis of optionality in number agreement with post-verbal third person Nominatives.

3.1. Overview of Person Agreement in Icelandic

Icelandic restricts the co-occurrence of DPs with person features (first and second) and other DPs. As discussed in Chapters 1 and 2, finite verbs in Icelandic agree in person and number with preverbal Nominative subjects. However, as shown above in(72), in mono-clausal constructions, Nominative objects can usually only be third person. The restriction against first and second person objects is specific to objects which have Nominative case. There is no person restriction for objects bearing other case values. As illustrated in (74), the object is a first person Dative. (Accusative objects can be first or second person as well.)

(74) Þið hafið hjálpað okkur
you.Nom.2pl have.2pl helped us.Dat.1pl
'You have helped us.' (based on Sigurðsson 2006, ex 53a)

Sigurðsson (1996) attributes the asymmetry between the person features allowed on Nominative subjects and those allowed on Nominative objects to a person restriction on Nominative objects, as stated in (75).

(75) *Person Restriction on (agreeing) Nominative Objects:* In the presence of a dative subject, the agreeing nominative object has to be 3rd person.
(Sigurðsson 1996)

This idea is slightly restated in Sigurðsson (2006), in which the Person Restriction is characterized in terms of the properties of Datives in Icelandic. Sigurðsson (2006) proposes that Icelandic has two types of Datives, a quirky Dative which blocks first and second person agreement, and a plain Dative, which does not block agreement, as formulated in (76).

(76) *Person Restriction:* Quirky dative blocks first and second person agreement (whereas plain dative has no such blocking effect).
(Sigurðsson 2006, example 59)

The distinction between quirky and plain Datives amounts to a distinction between Dative subjects and Dative objects. Since quirky (subject) Datives block first and second person agreement, first and second person Nominative objects are not allowed. Since plain (object) Datives do not block first and second person agreement, these features can be checked on a Nominative subject.

Sigurðsson's (2006) idea is further articulated in Sigurðsson and Holmberg (2008), which outlines a derivational timing account of agreement. Sigurðsson and Holmberg (2008) propose that Person and Number are separate heads, with both of these heads eventually raising to Tense. On this account, a Dative subject necessarily intervenes between the Person head and the Nominative object at the point in the derivation when Person probes the Nominative. Since the Person head cannot check the person features of a Nominative object, this feature remains unchecked and a Nominative object bearing person features [1] or [2] is not licensed, as shown in (77).

***

(77) *Person Dative Nominative $_{[1/2]}$ *1/2 DP not allowed*

Since third person DPs are not specified for a person value, the Person head does not probe third person Nominative objects, and whether or not a Dative intervenes is irrelevant.

Conversely, a Dative subject may or may not intervene between the Number head and the Nominative object at the point when Number probes the Nominative. The variation in number agreement arises from whether or not the Dative intervenes. In (78)a, the Dative intervenes and number agreement is blocked, whereas in (78)b, the Dative does not intervene and number agreement is allowed.

***

(78) a. Number Dative Nominative$_{[pl]}$ *default verbal form*

b. Dative Number ~~Dative~~ Nominative$_{[pl]}$ *agreeing verbal form*

Though not explicitly stated, the division between person and number on the Sigurðsson and Holmberg (2008) account extends beyond the idea that these features are checked by different functional heads. Though a relation with the respective functional heads is blocked in both (77) and (78)a, the consequence is different. While the failure to check a person feature results in a first or second person Nominative object not being licensed in (77), the failure to check a number feature results in non-agreement in (78)a. On this account it is not clear why the derivation in (77) simply does not result in default person agreement. In the next section I outline the key elements of my proposal and elaborate on what I believe to be a fundamental insight, namely that the failure to check a person feature results in a DP not being licensed.

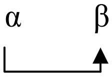
3.2. Theoretical Framework: Key Elements of Proposal

In this section, I make explicit the theoretical assumptions that underlie the analysis proposed in this chapter and the next. In particular, I make proposals related to the following areas: the difference between the features on probes and the features on goals, the difference between person and number features and the values I assume for each, the nature of Agree and Multiple Agree, and the morphological consequences of Agree and Multiple Agree relations.

3.2.1. Case and Agreement are Separate Probes

As discussed in Chapter 2, in the most general sense, Agree is the operation by which features – including case and agreement – are checked or assigned. Agree satisfies either the need of one item in the syntax to give features to another item or the need of one item in the syntax to get features from another item. Agree can be established in a Spec-head configuration or under c-command, as defined in (79).

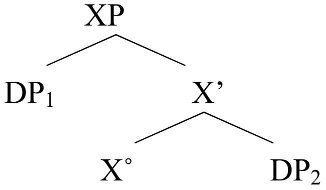
(79)



Agree (α, β), where α is a probe and β is a matching goal and β is in the specifier of α or α c-commands β. Uninterpretable features of α and β are checked/deleted.

I also assume that a probe necessarily enters into an Agree relation with the closest goal, where "closest" is defined in (80).

(80) DP$_1$ is closer to X than DP$_2$ is when DP$_1$ c-commands DP$_2$.



(Chomsky 2000)

As we will see, the statement in (80) accounts for the fact the first Agree relation between a probe and the closest goal is obligatory. I will argue, however, that additional Agree relations between a probe and other goals are optional.

The definition in (79) differs slightly from Chomsky's (2000) definition of Agree. In (81), Agree is established only under c-command.

(81)

$$\begin{tikzcd}\alpha \arrow[rr, bend right] & > & \beta\end{tikzcd}$$

Agree (α, β), where α is a probe and β is a matching goal, '>' is a c-command relation and uninterpretable features of α and β are checked/deleted.

(Chomsky 2000)

I adopt (79) instead of (81) in order to allow a head to probe its specifier. We will see some instances in this chapter and the next in which it is necessary for a head to probe its specifier. I return to the possible consequences of this proposal in Chapter 5.

In standard accounts of case and agreement, both types of features are assigned via an Agree relationship. In Nominative-Accusative systems, the standard assumption is that T has two types of features, a valued Nominative case feature and an unvalued agreement (phi) feature.[14] Unvalued features enter into Agree relations with their valued counterparts. The Nominative feature on T is valued because it enters the derivation already specified. DPs, however, are merged with an unvalued case feature, [*u*Case]. DPs have their case feature valued when they are in a particular structural relationship with a head which bears a valued case feature. The DP is either merged in the specifier of a case-assigning head or the DP is in the c-command domain of a case-assigning head. Because T has a valued case feature [case=Nom], it enters into an Agree relation with a DP that has an unvalued case feature. While DPs are merged with an unvalued case feature, DPs are merged with valued phi features. These features encode semantically interpretable information, such as person and number, about the DP. T, on the other hand is merged with unvalued phi features, [*u*Φ], and may have these features valued by a

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[14] T also has a valued tense feature, but this is not relevant for the discussion of case and agreement.

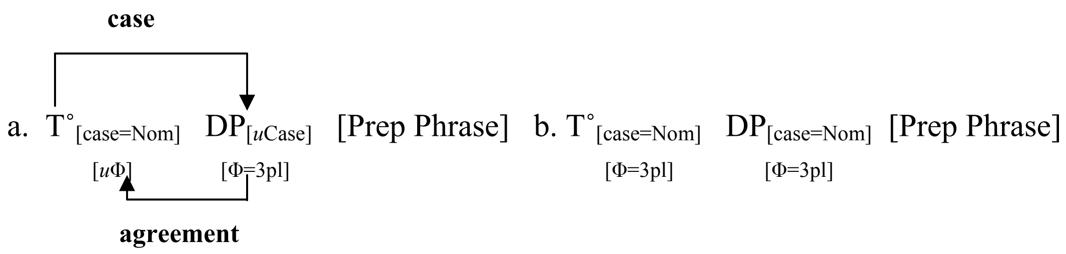
particular DP. Since case and agreement are established via the same Agree relation on the standard account, an Agree relation between T and the subject results in Nominative case being valued on the subject and results in T the subject valuing the phi features of T. A separate Agree relation between T and the verb results in the subject's phi features being transmitted to the verb. Languages, of course, vary in which of those features are morphologically realized.

In the simple case of agreement with preverbal Nominative subjects, we see that the standard analysis accurately accounts for the case and agreement pattern. In the sentence in (82), the verb necessarily agrees with the subject.

(82) Þeir **dönsuðu/*dansaði** í stofunni.
they.**Nom.pl** danced.**3pl/*3sg** in the living room
'They danced in the living room.'

In (83) T enters into an Agree relation with the subject DP. There are two consequences of this Agree relation. The subject's case feature is valued to Nominative and T's phi features are valued to those of the subject.

(83)

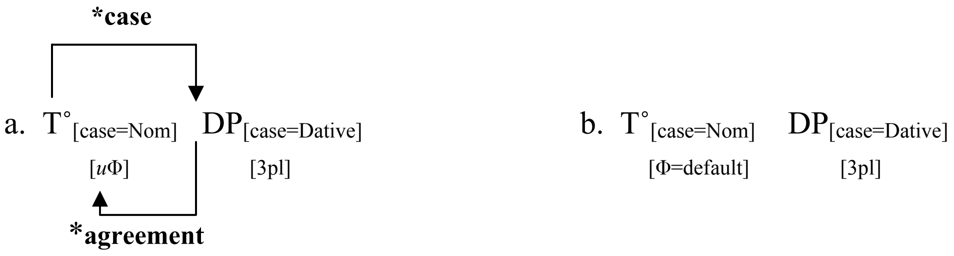

case
a. $T^{\circ}_{[case=Nom]}$ $DP_{[uCase]}$ [Prep Phrase]
[$u\Phi$] [Φ=3pl]
agreement
b. $T^{\circ}_{[case=Nom]}$ $DP_{[case=Nom]}$ [Prep Phrase]
[Φ=3pl] [Φ=3pl]

The standard analysis also accounts for the lack of agreement in sentences with Dative subjects, such as the one in (84).

(84) Stelpunum leiddist/*leiddust.
girls-the.**Dat.pl** bored.**3sg/*3pl**
'The girls felt bored.'

The derivation for sentences such as (84) is shown in (85). Here T does not enter into an Agree relationship with the subject. Since the subject bears Dative case, it does not have its case valued by T. Because there is no case relationship between T and the Dative, the Dative cannot value the phi features on T, and the verb appears in the default form.

(85)


*case
a. T°[case=Nom] DP[case=Dative]
[uΦ]
[3pl]
*agreement
b. T°[case=Nom] DP[case=Dative]
[Φ=default]
[3pl]

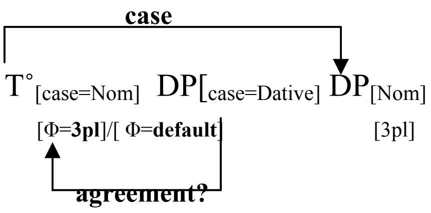
I assume that Dative subjects receive case from a *v* that is specified for that case value (Woolford 2006a). The important point in (85) is that the Dative subject cannot value the phi features on T.

The standard account becomes problematic when we consider the optionality that surfaces with post-verbal Nominatives, such as in (86).

(86) Einum málfræðingi **líkuðu/líkaði** þessar **hugmyndir**.
one linguist.**Dat** liked.**3pl/3sg** these ideas.**Nom.pl**
'One linguist liked these ideas.' (Sigurðsson and Holmberg 2008)

In (86), T values Nominative on the object, since the subject is Dative. This Agree relationship <u>should</u> also result in the Nominative valuing the phi features of T. However, this is not necessarily so. As shown in (86), and as schematized in (87), agreement is optional.

(87)



This contrast between Nominative subjects and Nominative objects is unexpected. If Nominative case assignment and agreement go hand in hand, then we expect case and agreement to pattern the same way in both constructions. Either agreement with both Nominative subjects and Nominative objects should be optional or agreement with both should be mandatory.

There is an abundance of evidence which suggests that Nominative case and agreement features are both connected with T. In languages in which verbs display morphological agreement, verbs agree with Nominative arguments (Woolford 2006b). In order to account for the fact that case and agreement do not *always* go hand-in-hand, I adopt a framework outlined by Pesetsky and Torrego (2004) in which features on functional heads are probes, as opposed to the head being a probe. I propose that case and agreement are separate probes on T. That is, T is merged with a valued Nominative feature [Nom] and an unvalued phi feature [*u*Φ]. Both [Nom] and [*u*Φ] function as independent probes. [Nom] probes for a DP with an unvalued case feature and [*u*Φ] probes for a DP with valued phi features. Crucially, only a DP with a valued Nominative feature can value [*u*Φ] on T. This relationship between [Nom] and [*u*Φ] is expressed in (88).

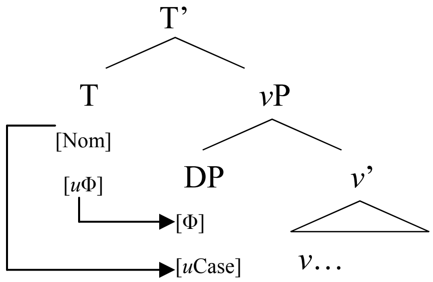
(88) Unless case=Nom, a DP cannot value [*u*Φ].

In most instances, the DP that is closest to T will satisfy the needs of both probes. In constructions such as (89), the verb necessarily agrees with the Nominative subject.

(89) Við tökum bókina
we.Nom.**1pl** take.**1pl** book-the.Acc.3sg
‘We take the book.’

The derivation for (89) is shown in (90). Here [Nom] and [*u*Φ] probe the subject, and the expected result is that Nominative is valued on the subject and the subject's phi features are valued on T and morphologically realized on the verb.

(90)

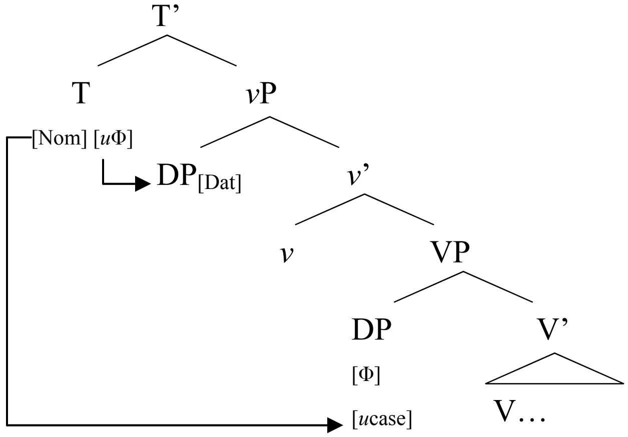


Because [Nom] and [*u*Φ] probe independently of each other, it is possible for these two probes to be in Agree relations with different DPs. In (91), Nominative is valued on the object, but the verb does not agree.

(91) Mér líkar þeir.
Me.Dat like.3sg they.Nom.pl
'I like them.'

In (92) [Nom] probes the object because it has an unvalued case feature. However, [*u*Φ] probes only the Dative. Because a Dative cannot value [*u*Φ], the verb in (91) appears in the default third singular form. I return to the relationship between T and Dative subjects in Section 3.2.5.

(92)



As will be discussed in Section 3.2.3 and Section 3.3 it is possible for [$u\Phi$] to probe the Nominative, which results in the agreeing third plural form of the verb, which is *líka* in (91).

In addition to the particular data points which illustrate that case and agreement can pattern differently, and there are also theoretical reasons to think that case and agreement features might be distinct. The most obvious difference is that case and agreement features are valued on different items. Case features are valued on DPs (and sometimes adjectives, secondary predicates, and other modifiers in concord with a DP), while agreement features are valued on verbs. Though not formally stated, there is an implicit assumption throughout syntactic theory that agreement is somehow less important than case. The issue of how case gets assigned has been given thorough treatment in the literature and the importance of case assignment has been formalized in the Case Filter. While we assume that DPs need case in order to be pronounced, we do not assume that verbal elements need agreement features in order to be pronounced.

A second difference has to do with the directionality of feature valuation. DPs receive case values from functional heads but DPs give agreement values to functional heads. Both case and agreement can be valued in a spec-head configuration, but absent a spec-head relationship, case generally travels down and agreement generally travels up. That is, some functional head assigns case to a DP that the functional head c-commands. Conversely, a DP values agreement features of a functional head that the DP is c-commanded by. In Chapter 5, Section 5.4, I return to the relationship between case and agreement, given these apparent differences.

3.2.2. [*u*Person] on T

To further elaborate on the proposal sketched above, I argue that the [*u*Φ] feature on T is specific to person. That is, T is merged with [Nom] and [*u*Person]. This proposal diverges from previous accounts in that the unvalued Φ bundle on T does not include an unvalued number feature.[15] This is not to say that T cannot obtain a number value. I propose that if [*u*Person] is in an Agree relation with a DP, and the DP has a number value, the number value of the DP is copied onto T.

Many accounts of Icelandic agreement make some distinction between person and number features. As has been discussed, Sigurðsson and Holmberg (2008) propose that person and number are separate heads, with each being distinct from T. Alexiadou (2003) proposes that Tense checks person, while Aspect checks number. Adger and Harbour (2007), Anagnostopoulou (2005), and Taraldsen (1995) propose that Datives value person on T, but do not value number on T. Additionally, Baker (2008) proposes a special locality condition that applies to person agreement, but not to number agreement.

Given the asymmetries between person and number features, it seems that some larger theoretical distinction must be made. I propose that the division between person and number lies with the features that are present on T. This proposal is based on the empirical fact that verbs uniquely display person agreement. Baker (2008) discusses the fact that cross-linguistically, verbs display person agreement, while adjectives do not. Likewise, in Icelandic, predicate adjectives agree with the nouns they modify in case, number, and gender, but not person. In (93) the adjective *hráan* 'raw' is Accusative,

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[15] See Béjar and Rezac (2009) for a proposal that the individual features on DPs enter into distinct feature checking relationships.

singular, masculine, and it agrees with *fiskinn* ‘fish’. There is, however, no third person specification for the adjective.

(93)	Ég	sendi	Hildi	fiskinn	hráan.
	I. Nom	sent.1sg	Hildur.Dat.sg.fem.	fish-the.Acc.sg.masc.	raw.Acc.sg.masc.

‘I sent Hildur the fish raw.’ (Thráinsson 2007: 217)

Since verbs display person values, I propose that T is merged with an unvalued person feature which probes for a Nominative DP with a valued person feature. Since there is no [*u*Number] feature on T, the number feature of a DP is copied onto T only if there is an Agree relation between [*u*Person] and the DP. The consequence of my proposal is that the number value of a DP may go uncopied if there is no Agree relation between [*u*Person] and a DP. As will be discussed in Section 3.3, this is precisely what occurs when there is no number agreement with a third person Nominative object.

3.2.3. Person Valuation and Person Checking

I adopt the standard assumption that a third person DP does not bear a person value.[16] First person DPs bear the value [1]; second person DPs bear the value [2], and third person DPs bear no value. When there is an Agree relation between [*u*Person] and a DP without a person value, [*u*Person] is spelled out as [default] (I elaborate on this in Section 3.2.5). Otherwise, [*u*Person] is valued to either [1] or [2], depending on the person value of the DP, and is spelled out with that value.

While [*u*Person] may be unvalued on T, I propose that [1] or [2] must be checked on a Nominative DP. That is, if a Nominative DP bears a person value, that value must be

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[16] For instance, see Benveniste 1971 and Silverstein 1976 [1986] for discussion. Also see Harley and Ritter (2002) for a detailed discussion of the allowable features for pronouns.

in an Agree relation with [*u*Person] in order for the derivation to be grammatical. This allows us to account for the asymmetry between Nominative objects bearing values [person=1] and [person=2] and Nominative objects bearing no person value. Icelandic sentences with Dative subjects and first or second person Nominative objects are generally ungrammatical[17], while sentences with Dative subjects and third person Nominative objects are grammatical. In (94)a, the derivation for (72)a, the person value on the object goes unchecked and the derivation is ungrammatical. In (94)b, the derivation for (72)b/c, there is no person value on the object. Just as in (94)a, there is not an Agree relation between [*u*Person] and the Nominative. However, the derivation in (94)b is grammatical because the Nominative does not have a person value which goes unchecked. (In Sections 3.2.5 and 3.2.6, I show that [*u*Person] necessarily probes the Dative.)

(94) a. *$\mathrm{T}_{[u\mathrm{Person}]}$ Dat $\mathrm{Nom}_{[1]/[2]}$ b. $\mathrm{T}_{[u\mathrm{Person}]}$ Dat Nom

The difference between the values on T and the values on DPs seems to amount to a fundamental difference between the derivational needs of probes and the needs of goals. The values on probes – irrespective of whether they are valued or unvalued – need not be in an Agree relation with a matching value on a DP. The Nominative case value on T need not be discharged, as evidenced by constructions with only a Dative subject, and [*u*Person] need not be valued, as evidence by default verbal forms. However, a valued person feature and an unvalued case feature on a DP must be in an Agree relation with

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[17] There are some cases in which a first or second person Nominative is allowed, and I discuss these constructions in Section 3.3.

the appropriate matching probe. Assuming that a DP must receive case in order to be licensed, [*u*Case] cannot remain unvalued. Nor can [1]/[2] remain unchecked.

3.2.4. Number Copying

I adopt the standard assumption that singular is the lack of a number value (as observed by Greenberg 1966). Therefore, the only number value is [pl]. When there is an Agree relation between [*u*Person] and a DP with the [pl] feature, [pl] is copied onto T. When there is an Agree relation between [*u*Person] and a DP without a number value or a DP whose number value is not visible to T, i.e., non-Nominatives, no number value is copied onto T. When no number value is copied onto T, the morphological consequence is that the verb appears in the default singular form, a point which I elaborate on in Section 3.2.7.

The asymmetry between person and number that is instantiated in the feature composition of T is also reflected in the requirements on the DP. While a [1] or [2] value needs to be in an Agree relation with [*u*Person], [pl] need not be in an Agree relation. Because there is no number probe on T, [pl] on a DP is not in an Agree relation with any probe. While person features on DPs cannot go unchecked, number features can go uncopied without leading to a crash.

On my proposal, the copying of a number feature onto T is epiphenomenal to the Agree relation between [*u*Person] and a DP. It is important to note that [pl] may be copied onto T even if the DP bearing [pl] does not bear a person feature. [*u*Person] may probe a third person Nominative, but since there is no person value, [*u*Person] is valued to default. Should the third person DP bear [pl], [pl] is copied onto T as a consequence of [*u*Person] probing the DP.

To summarize the difference between person and number values, T is merged with [*u*Person]. If [*u*Person] probes a Nominative with a [1] or [2] specification, [*u*Person] is valued to that specification. If the Nominative also bears [pl], then [pl] is copied onto T, as shown in (95).

(95) a. $\mathrm{T}_{[u\mathrm{Person}]}$ Dat $\mathrm{Nom}_{\substack{[1]/[2] \\ [\mathrm{pl}]}}$ b. $\mathrm{T}_{\substack{[\mathrm{Person}=1/2] \\ [\mathrm{pl}]}}$ Dat $\mathrm{Nom}_{\substack{[1]/[2] \\ [\mathrm{pl}]}}$

If [*u*Person] probes a Nominative that does not have a person value, i.e., a third person Nominative, [*u*Person] is realized as default. However, if that DP has a number value, then [pl] is copied onto T, as shown in (96).

(96) a. $\mathrm{T}_{[u\mathrm{Person}]}$ Dat $\mathrm{Nom}_{[\mathrm{pl}]}$ b. $\mathrm{T}_{\substack{[\mathrm{Person}=\mathrm{Default}] \\ [\mathrm{pl}]}}$ Dat $\mathrm{Nom}_{[\mathrm{pll}]}$

3.2.5. Datives Do Not Value Features on T

A common assumption is that the features of Dative subjects are not visible to T. In Icelandic, and the vast majority of languages with Dative arguments, verbs do not agree with Datives. Since the features of Datives are not accessible at the point of morphological spell-out, the standard assumption is that the features of Datives are not visible to T in the syntax. As discussed earlier, on many accounts (e.g., Alexiadou 2003, Anagnostopoulou 2005, Taraldsen 1995), while the particular feature specifications of the Dative are not visible, a Dative values the person feature on T to default. For instance, Béjar and Rezac (2009) propose that Datives are wrapped in an additional layer of structure which has a default person value. First and second person Datives are wrapped in a default value, just as third person Datives are. This approach is problematic because the value for [1] and [2] Datives that is sent to the morphophonological interface is default, while the value that is sent to the semantics interface is [1] or [2]. Therefore, on this approach, each interface receives different information for the same item. Additionally, the possibility of the syntax and the semantics being incongruent arises. Datives value [person] to default irrespective of the Dative's actual person specification. While a Dative bearing a [1] or [2] value is interpreted as such by the semantics, it is not represented as such in the syntax.

I argue that Datives simply do not value features on T. Therefore, when [*u*Person] probes the Dative subject, [*u*Person] remains unvalued and is morphologically realized as default. This proposal eliminates the potential conflict between the syntax and the semantics and removes the need for the additional syntactic apparatus necessary to deliver the [person=default] result. On my account, there is no need to "re-write" the features of the Dative. A first or second person Dative is simply a first or second person Dative. A Dative cannot value an unvalued feature on T.

3.2.6. Multiple Agree is an Optional Operation

In Chapter 2, I discuss the motivations for Multiple Agree, a operation in which a single probe has more than one goal. Assuming a principle of Relativized Minimality (Rizzi 1990, 2001), I propose that a probe necessarily enters into an Agree relation with the closest DP which potentially bears matching values. Therefore, [*u*Person] necessarily probes a Dative subject, as the Dative is the closest DP to T. Because Datives do not value features on T, [*u*Person] optionally continues on to probe the Nominative. In essence, a single application of Agree, as shown in (97)a is obligatory, while multiple iterations of Agree, as shown in (97)b, are optional.

(97) a. $\text{T}_{[u\text{Person}]}$ Dat Nom b. $\text{T}_{[u\text{Person}]}$ Dat Nom

This idea is similar to the one proposed in Ussery (2008), in which it is proposed that Multiple Agree optionally applies in Icelandic control constructions. This proposal accounts for the fact that the adjectival agreement pattern in such constructions suggests that PRO optionally bears the case of the controller.

It should be noted that this conceptualization of Multiple Agree varies from that proposed in Hiraiwa (2001). Hiraiwa (2001) proposes that a probe simultaneously checks the features of multiple goals. This proposal is designed to obviate a defective intervention effect. The idea is that once the features of the first goal are valued, then that goal should become a defective intervener and block an Agree relation between the probe and subsequent goals. Given my discussion in Chapter 2 that defective intervention is merely a description of facts that can be derived from other mechanisms, my implementation of Multiple Agree is not designed to avoid a defective intervention effect. I return to this discussion in Chapter 4, Section 4.4.2.

It should also be noted that since a probe establishes an Agree relation with the closest potential goal, [Nom] on T also probes Dative subjects. Therefore, in constructions such as (98)a in which there is a Dative subject and no Nominative object, [Nom] probes the Dative, as in (98)b.

(98) a. Stelpunum leiddist. b. $\text{T}_{[\mathit{Nom}]}$ Dat
girls-the.**Dat**.pl bored.3sg
'The girls felt bored.'

The idea that there is a relationship between T and Dative subjects is found in other proposals (e.g., Broekhuis 2007, Taraldsen 1995, Alexiadou 2003, Anagnostopoulou

2005), since it is assumed that subjects have an EPP relationship with T. I leave open the question of whether the relationship in (98)b is motivated by EPP reasons or if it is simply the consequence of the Dative being the closest DP. The crucial fact is that there is no morphological consequence of this relationship, a point which I elaborate on in the following section.

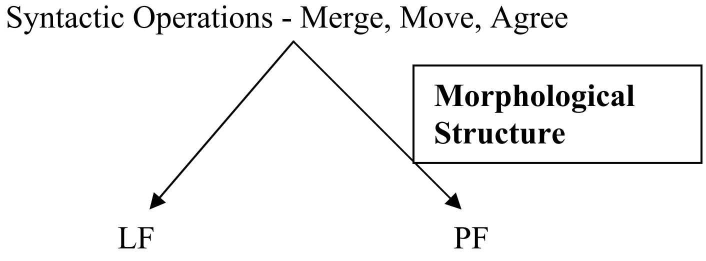
While Multiple Agree has been utilized in other accounts of agreement (e.g Anagnostopoulou 2005), it has not heretofore been argues that Multiple Agree in an inherently optional operation. We will see additional evidence in Chapter 4 that Agree is obligatory while Multiple Agree is optional. It should be noted that since Multiple Agree is optional, [*u*Person] could potentially probe past a Nominative DP. In a Nominative-Accusative construction, for instance, [*u*Person] could probe both the Nominative and the Accusative, but it could only be valued by the Nominative. I discuss the implications of this proposal in Chapter 5, Section 5.4.

3.2.7. Agree-Morphology Mapping

A central theme of this thesis is arguing for a division of labor between the syntax and the morphology. I propose that there are two consequences of the Agree relationships established in the syntax. The first consequence is that features on goals are checked and features on probes are valued. The second consequence is that terminal nodes become comprised of feature bundles that are interpreted by the morphological interface and mapped to morphological forms. In essence, morphological forms are the surface realization of Agree operations, or the lack thereof. That the morphology instantiates syntactic relationships may seem like an obvious point. In a sense, the morphology allows us to “see” syntactic relationships. For instance, Nominative case marking on a DP allows us to see the relationship between the DP and T. Less obvious, however, is the idea that the morphology can also reflect the absence of a syntactic relationship. It is commonly assumed that languages have default forms that surface in the absence of a syntactic relationship, and the analysis in this dissertation provides the technical apparatus that gives rise to such default forms.

My analysis draws on some assumptions of the Distributed Morphology (DM) framework (Halle and Marantz 1993; Embick and Noyer 2001, 2007). DM assumes the standard branching model of the grammar in which the syntactic derivation branches to LF where the structure is interpreted and to PF where the phonological forms of morphemes are determined. DM, however, offers a more articulated conception of the PF branch. Morphological operations are distributed between the syntax and the Morphological Structure component of the grammar, which is housed in the PF branch. The morphological component is comprised of ordered operations which impact the morphology and apply prior to the final phonological form being realized. The DM model is schematized in (99).

(99) Distributed Morphology Model


Syntactic Operations - Merge, Move, Agree
Morphological Structure
LF
PF

As shown in (99), the standard operations of Merge, Move, and Agree apply in the syntax. On the DM model, these operations apply to bundles of features, as actual lexical items are inserted post-syntactically. Crucially, post-syntactic operations apply only to the output of syntactic structure. That is, post-syntactic operations take the syntactic structure as their input, but do not feed operations that occur in overt syntax.

What this model means for the analysis proposed in this dissertation is that the output of syntactic Agree relations is a set of directives to the Morphological Structure. I propose that for the purposes of case and agreement, every instance of an Agree relation between an unvalued feature and a matching valued feature results in an instruction that the unvalued feature be spelled out with the inherited value. This principle of Agree relations mapping to morphological instructions is stated in (100).

(100) **The Agree-Morphology Mapping Principle**

a. For every Agree relation between an unvalued feature [*u*α] and a valued feature [*v*α], let [*u*α] be valued to [*v*α].
b. Let [*v*α] be spelled out as [*v*α].
c. If an Agree relation between [*u*α] and [*v*α] fails, let [*u*α] be spelled out as default.

The statement in (100)a accounts for the simple fact that unvalued features are valued by matching valued features and the statement in (100)b captures the fact that features which have been valued are expressed morphologically. I adopt the Distributed Morphology assumption that “not all morphemes relevant to pronunciation are present in the syntax prior to Spell-Out and Morphology” (Embick and Noyer 2001:558). On my analysis, (100)c formalizes the fact that when a feature remains unvalued, i.e. when a morpheme is not present, the morphological consequence is the default form.

The principle in (100) applies to both case and agreement. In (101), when [Nom] probes a DP with an unvalued case feature, [*u*Case] is valued to [Nom] by (100)a and is spelled out as such by (100)b.

(101) a. $$\begin{tikzcd} \mathrm{T}_{[\text{case=Nom}]} \arrow[r, bend left] & \mathrm{DP}_{[\text{uCase}]} \end{tikzcd}$$ b. $\mathrm{T}_{[\text{case=Nom}]}$ $\mathrm{DP}_{[\text{case=Nom}]}$

By contrast, when [Nom] probes a DP that already has a valued case feature, (100)a does not apply since there is not an Agree relation between an unvalued feature and a valued feature. There is, therefore, no morphological consequence of the Agree relation in (102).

(102) $\text{T}_{\text{[case=Nom]}}$ $\text{DP}_{\text{[case=Dat]}}$

In (103)a, [*u*Person] is valued to [1], since [*u*Person] probes a DP that bears Nominative case. By (100)b, [Person] is spelled out as [1] in (103)b.

(103) a. $\text{T}_{\text{[uPerson]}}$ $\text{DP}_{\text{[case=Nom] [Person=1]}}$ b. $\text{T}_{\text{[Person=1]}}$ $\text{DP}_{\text{[case=Nom]}}$

Conversely, in (104)a, [*u*Person] probes a DP that bears Dative case. Unlike in (103)a, in (104)a [*u*Person] is unable to establish an Agree relation with the person value of the DP. Since Datives cannot value features on T, (100)c applies, as opposed to (100)b. Consequently, [Person] is spelled out as default in (104)b.

(104) a. $\text{T}_{\text{[uPerson]}}$ $\text{DP}_{\text{[case=Dat] [Person=1]}}$ b. $\text{T}_{\text{[Person=default]}}$ $\text{DP}_{\text{[case=Dat]}}$

When Multiple Agree obtains, the potential for (100)b and (100)c to be in conflict arises. In (105), the Agree relation between [*u*Person] and the Dative results in [*u*Person] being spelled out as default, by (100)c. However, the Agree relation between [*u*Person] and the Nominative results in [*u*Person] being valued to [1] and by (100)b, [*u*Person] will be spelled out as [1].

(105) $\text{T}_{[\textit{u}\text{Person}]}$ Dat $\text{Nom}_{[1]}$

In the next section, I show that when the output of (100)b and the output of (100)c are conflicting morphological forms, the derivation in which Multiple Agree applies is ungrammatical.

3.3. Dative-Nominative Mono-clausal Constructions

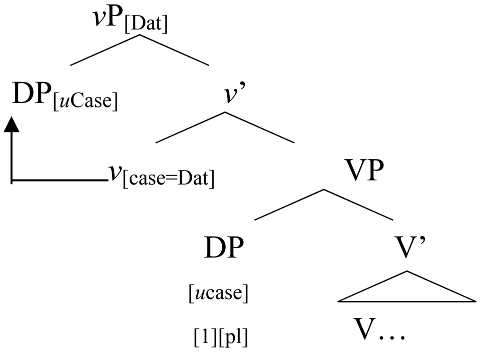
Now that the theoretical groundwork is laid, we can turn to the specifics of DP licensing and agreement in Dative-Nominative constructions. Let us return to the contrast between (72)a and (72)c, repeated below in (106).

(106) a. *Henni leiddist við/þið.
her.Dat bored.3sg we.Nom.pl/you.Nom.pl
'She found us/you boring.'

b. Henni leiddist/leiddust þeir.
her.Dat bored.3sg/3pl them.Nom.pl
'She found them boring.'

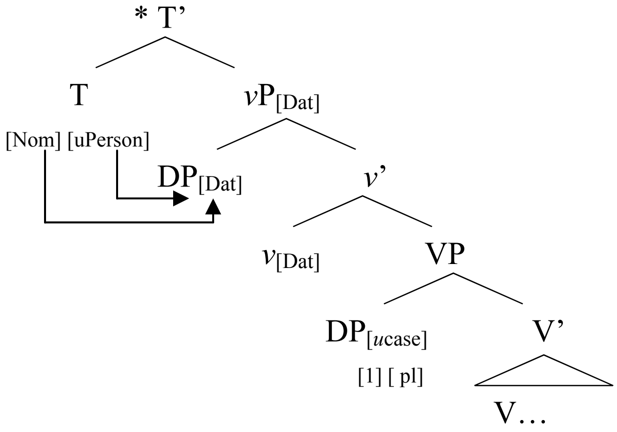
I assume that Dative subjects are merged in the specifier of *v*P$_{\text{Dat}}$ (see Woolford 2006a for discussion). As shown in (107), the derivation for (106)a, *v*$_{\text{Dat}}$ enters into an Agree relation with the subject and assigns Dative case.

(107)



Since this relation is between a valued feature on the *v* head and an unvalued feature on the DP, by (100)a and (100)b, Dative is assigned to the subject and the subject is morphologically realized as Dative. T is then merged with [Nom] and [*u*Person], each of which probes the closest DP, the Dative. Since Multiple Agree is optional, neither [Nom] nor [*u*Person] necessarily probes past the Dative. If [Nom] probes only the Dative, the derivation crashes because the object is left with an unvalued case feature. Likewise, if [*u*Person] probes only the Dative, the derivation crashes because the object has an unchecked person value. While the derivation in (108) illustrates both [Nom] and [*u*Person] probing only the Dative, the derivation is also ungrammatical if either [Nom] or [*u*Person] probes only the Dative. As discussed in Section 2.2.3, the case feature of a DP cannot go unvalued, nor can the person value go unchecked.

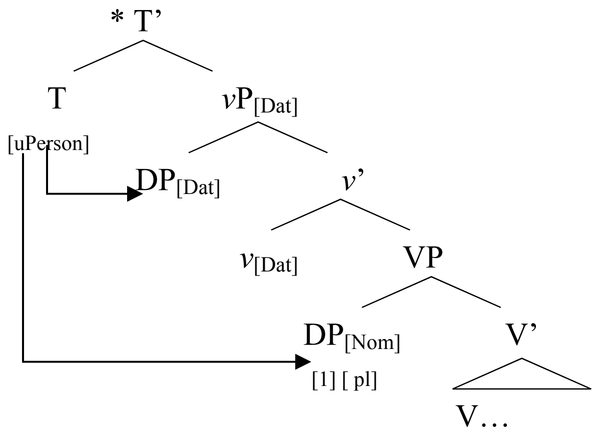
(108)



When [Nom] probes the Dative, (100) does not apply because the relationship is between two valued features, as the Dative has already received case from v_{Dat}. When [Nom] continues probing, the case feature on the object is valued. Because the Agree relation is between a valued feature and an unvalued feature, (100) applies and by (100)b, Nominative is to be morphologically realized on the DP.

When [*u*Person] continues probing it checks the [1] value of the Nominative. [*u*Person] is valued to [1] and by (100)b, [1] is to be morphologically realized on T. Since the Nominative bears the [pl] value, [pl] is copied onto T. Because there is also an Agree relation with the Dative, and because the consequence of this relationship is that [*u*Person] is realized as default, (100)b and (100)c conflict. As shown in (109), the morphological consequence of these two Agree relations is different.

(109) a.



b. **Agree-Morphology Mapping for (109)a**
Step 1: [*u*Person] probes Dative, [*u*Person] to be realized as default.
Step 2: [*u*Person] probes Nominative, [*u*Person] valued to [1], [pl] copied, [1] to be realized as [1], [pl] to be realized as [pl].

Because the number value of the Nominative is copied onto T, in order to adhere to the morphological directives in (109)b, there would have to be a verbal form that realizes [default], [1], and [pl]. Since there is not a form which realizes the two different specifications for person, the derivation crashes. Therefore, constructions with a Nominative object bearing a person value are ungrammatical irrespective of whether Multiple Agree applies. If T probes both the Dative and the Nominative, there is a morphological clash. If T probes only the Dative, the object is left with an unchecked person value.

This account predicts that if there is not a morphological clash, then first and second person Nominative objects should be allowed, and this is precisely what happens. Sigurðsson (1996) reports that in a survey of nine Icelandic speakers, constructions with first and second person objects are judged to be grammatical when the agreeing form of the verb is syncretic with the non-agreeing form. Sigurðsson (1996) reports that the sentences in (110) had significantly higher acceptability ratings than the sentences in (111).

(110) a. Henni líkaði ég.
her.Dat liked.3sg I.Nom.1sg
'She liked me.'

b. Henni leiddist ég.
her.Dat bored.3sg I.Nom.1sg
'She found me boring.'

b. Henni leiddist þú.
her.Dat bored.3sg you.Nom.2sg
'She found you boring.' (Sigurðsson 1996:33)

(111) a. *Henni líkaðir þú.
her.Dat liked.2sg you.Nom.2sg
'She liked you.'

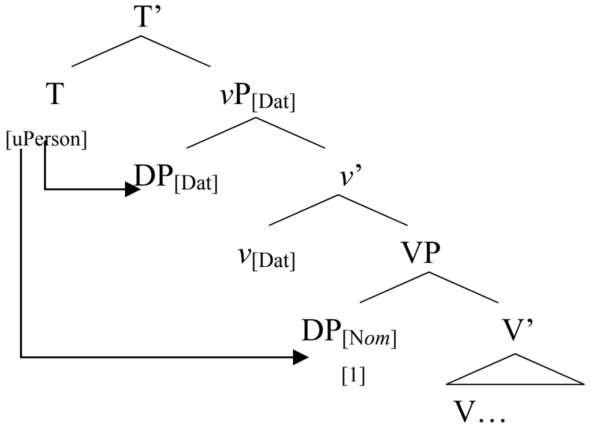
b. *Henni líkuðum við.
her.Dat liked.1pl we.Nom.1pl
'She liked us.'

c. *Henni leiddumst við.
her.Dat bored.1pl we.Nom.1pl
'She found us boring.' (Sigurðsson 1996:33)

For the sentences in (110), the default third singular form is syncretic with the agreeing form. In (110)a, both the third singular form and the first singular form of 'liked' is *líkaði*. In (110)b, both the third singular form and the first singular form of 'bored' is *leiddist*. In (110)c, both the third singular form and the second singular form of 'bored' is *leiddist*. Conversely, in (111)a and (111)b, the second singular and first plural forms of 'liked' are *líkaðir* and *líkuðum*. These forms are not homophonous with the default form *líkaði*. Likewise, in (111)c the first plural form of 'bored' *leiddumst* is not homophonous with the default form *leiddist.*

The contrast between (110) and (111) follows from the analysis proposed above. The sentences in (111) are ungrammatical because the morphological consequences of [*u*Person] probing both the Dative and the Nominative conflict. The default person value and the [1] or [2] person value cannot simultaneously be realized. However, there is no conflict for the sentences in (110). The derivation for (110)a is shown in (112) and the morphological directives are outlined in (113).

(112)



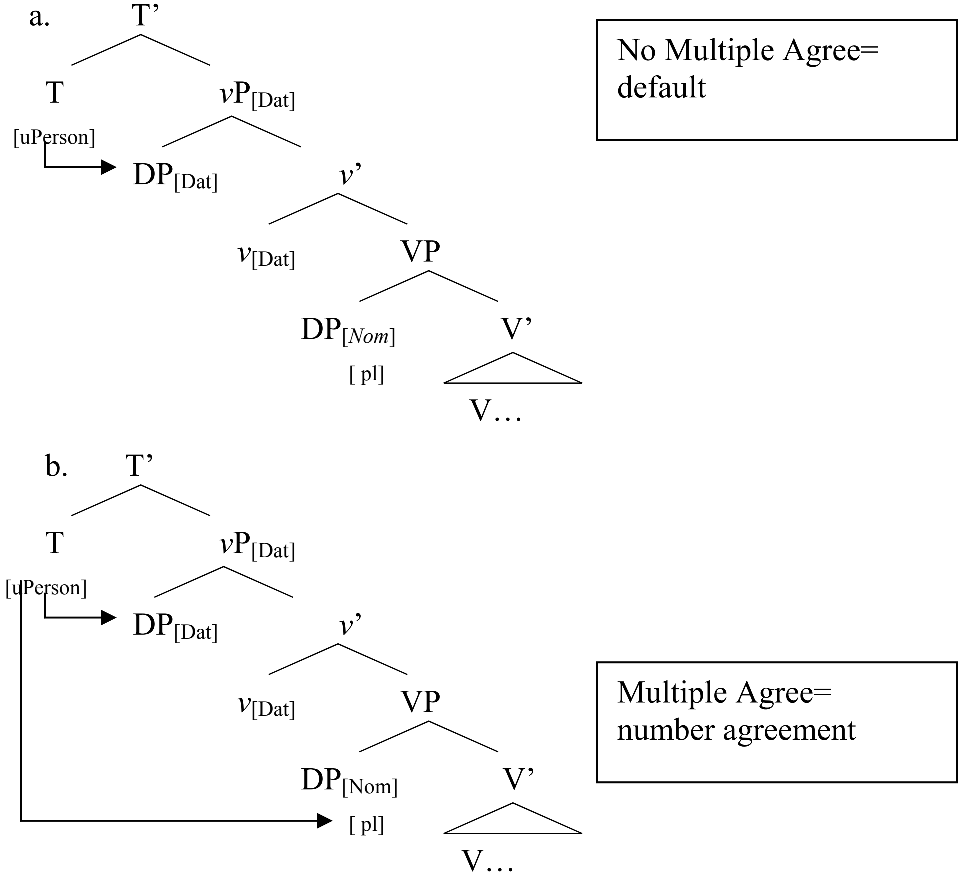
(113) **Agree-Morphology Mapping for (110)a/(112)**
Step 1: [*u*Person] probes Dative, [*u*Person] to be realized as default.
Step 2: [*u*Person] probes Nominative, [*u*Person] valued to [1], [1] to be realized as [1].

Since the Nominative in (110)a does not bear [pl], no number value is copied onto T. In order for the construction to be grammatical, there must be a form which realizes [person=default] and [person=1], which *líkaði* does. The derivations for (110)b/c proceed in the same way.

Constructions with third person Nominative objects are always grammatical (provided [Nom] probes the object in order to assign case) because there is no person feature on the object which needs to be checked and because the output of (100)b and

(100)c never conflict. In (114)a [*u*Person] probes only the Dative and remains unvalued. Since no number value can be copied from a Dative, the default third singular form of the verb is realized. In (114)b, [*u*Person] is spelled out as [default] as a consequence of the relationship with the Dative and the relationship with the Nominative. Neither DP can value [*u*Person]. Datives do not value features on T and the third person Nominative does not have a person value. The [pl] value of the Nominative is copied onto T, and the morphological output is the form of the verb which realizes [default] person and [pl].

(114)



The optionality in agreement with third person Nominatives, therefore, follows from the optionality of Multiple Agree.

The proposal that a clash in values would lead to an ungrammatical derivation, such as in (109)a, is similar in spirit to Anagnostopoulou (2005), who proposes a unified analysis of the Person Case Constraint (PCC) and the Icelandic Person Restriction. As proposed by Bonet (1991), the PCC captures the fact that in many languages, first and second person phonologically weak direct objects, i.e. clitics, cannot co-occur with phonologically weak indirect objects of any person. As stated in (115), if there is a phonologically weak indirect object, the direct object must be third person.

(115) Person Case Constraint[18]
  a. In a combination of a direct object and an indirect object (clitic, agreement marker, or weak pronoun), the direct object has to be third person.
  c. Both the direct object and the indirect object are phonologically weak.
  (Bonet 1991:177)

As shown in the Greek sentences in (116)a and (116)b, the indirect object clitics are first and second person, respectively, and the direct object clitic is third person. Conversely, in the sentences in (116)c and (116)d, the direct object clitics are first and second person, respectively, and these cannot co-occur with an indirect object clitic. Combinations with both the second person clitic in (116)c and with the third person clitic in (116)d are illicit.

(116) a. Tha mu to stilune
  fut cl.Gen.sg.**1** cl.Acc.sg.**3**.neut send.3.pl
  'They will send it to me.'

  b. Tha su to stilune
  fut cl.Gen.sg.**2** cl.Acc.sg.**3**.masc send.3pl
  'They will send him to you.'

  c. *Tha su me sistisune
  fut cl.Gen..sg.**2** cl.Acc.sg.**1** introduce.3.pl
  'They will introduce me to you.'

---

[18] The statement in (115) reflects the Strong Version of the PCC. Bonet (1991) also proposed a Weak Version of the PCC, stated in (i).

(i) PCC (Weak Version): In a combination of a weak direct object and an indirect object (clitic, agreement marker, or weak pronoun), if there is a third person it has to be the direct object. (Bonet 1991:182)

Because languages and speakers vary widely with respect to the Weak Version, Bonet (1991) adopts only the Strong Version.

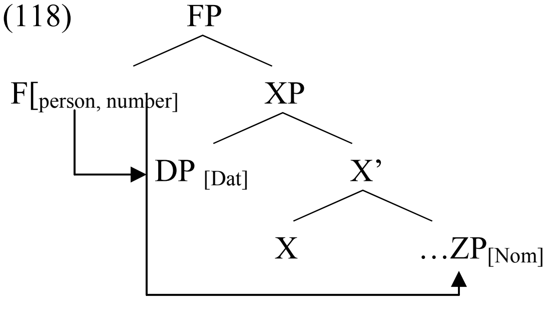
d. *Tha tu se stilune
fut cl.Gen.masc.sg.**3** cl.Acc.sg.**2** send.3.pl
'They will send you to him.' (Bonet 1991:182)

Icelandic does not display a person restriction in the canonical ditransitive PCC environments. In Icelandic double object constructions, the subject is always Nominative, with the indirect and direct object appearing in various combinations of Dative, Accusative, and Genitive. There is no restriction on the person values of either the direct or the indirect object. In (117), the Dative indirect object is 1st person and the Accusative direct object is 2nd person.

(117) Þau sýndu mér þig
they.Nom.3pl showed.3pl me.Dat.**1**sg you.Acc.**2**sg
'They showed me you.'

Even though there is no person restriction in Icelandic ditransitives, Anagnostopoulou (2005) argues for a unified account since there is a person restriction in some environments. The crux of Anagnostopoulou's (2005) proposal is that when the same functional head checks person and number against different goals, both the PCC and the Person Restriction arise. The structure in (118) is Anagnostopoulou's (2005) analysis of Icelandic, though PCC contexts have the same general structure.[19] In (118) F checks person against the Dative, while F checks number against the Nominative.

(118)



(based on Anagnostopoulou (2005:212)

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[19] In Anagnostopoulou's (2005) analysis of PCC contexts, *v* checks person against the indirect object and number against the direct object.

The Dative checks person because of its EPP relation with T. Since the number values of DPs bearing non-structural case are not accessible to T, in order for T to check number, it must probe the Nominative.

The crucial assumption on Anagnostopoulou's (2005) account is that structural case is assigned only when there is complete checking of phi features. The argument goes as follows: Case assignment and phi feature checking are inextricably linked. If all of a DPs features cannot be checked, it cannot receive structural case and, therefore, cannot be licensed. T cannot check the person features of a Nominative object because the person feature on T is valued by the Dative. Because the Dative does not bear structural case (and therefore cannot trigger agreement), the person feature on T is necessarily valued to default. Because the number features on T cannot be valued by the Dative (see Section 3.2.5 for discussion), T probes the Nominative. However, if the Nominative bears a person value, it cannot be checked by T. Since person on T has been valued to default by the Dative, a [1] or [2] specification on the Nominative necessarily conflicts. A Nominative bearing a person value could, therefore, only have its number value checked. Since all of a DP's features must be checked, only a DP that does not have a person value can receive Nominative case, and therefore, be licensed.

The argument that structural case is assigned only when there is complete phi checking is motivated, in part, by the idea that "[number] agreement with Nominative objects is by and large obligatory" (Anagnostopoulou 2005:209). Consistent with Sigurðsson (1996) and Schütze (1997), Anagnostopoulou (2005) reports that optional agreement is exceptional and that in constructions such as (119), the agreeing form is preferred.

(119) Henni líkuðu/líkaði ekki þessar athugasemdir
she.Dat liked.3pl/3sg not these comments.Nom
'She did not like these comments.' (Anagnostopoulou 2005:209)

Given the results of a survey of sixty-one native Icelandic speakers (which are reported in detail in Chapter 4), optional agreement is far from exceptional, with non-agreement consistently being preferred to agreement in Dative-Nominative constructions. Constructions such as (119) have the highest rate of number agreement, and in these constructions, agreement is preferred less than half of the time. Therefore, it cannot be that case assignment is dependent on complete phi-checking. I leave open the question of whether there can be a unified account of the PCC and the Icelandic facts, especially given the optionality in Icelandic. However, my analysis improves on Anagnostopoulou's (2005) account in that it derives the optionality in number agreement while also accounting for the licensing of third person objects.

To summarize, constructions with first and second person objects are ungrammatical irrespective of whether Agree or Multiple Agree applies. If T probes only the Dative, the person value on the object is not checked, and this leads to a crash. If T probes both the Dative and the Nominative, conflicting person values lead to a morphological crash, unless there is a form which realizes both default person and the person value of the Nominative. In constructions with third person Nominative objects, there is no person value to be checked. If T probes only the Dative, T is mapped to the default verbal form. If T probes both the Dative and the Nominative, T is mapped to the verbal form which displays number agreement.

3.4. Dative-Nominative Bi-clausal Constructions

On Anagnostopoulou's (2005) account, it is also not clear how to derive the asymmetry between Nominative objects and embedded Nominative subjects. Even though most Icelandic speakers do not allow first and second person Nominative objects, first and second person embedded Nominative subjects are allowed for most speakers. As shown in (120), these subjects do not agree in person or number with the matrix verb; 'would' is necessarily in the default form.

(120) a. Honum mundi/*mundum/*mundu virðast við (vera) hæfir.
him.Dat would.3sg/*1pl/*3pl seem we.Nom.pl (be) competent
'We would seem competent to him.'

b. Honum mundi/*munduð/*mundu virðast þið (vera) hæfir.
him.Dat would.3sg/*2pl/*3pl seem you.Nom.pl (be) competent
'You would seem competent to him.'
(Sigurðsson and Holmberg 2008)

If one assumes that the matrix T assigns Nominative to the embedded subjects in (120) (a point which I elaborate on in Chapter 5, Section 5.5), then on an Anagnostopoulou (2005) style proposal, it is not clear why Multiple Agree would not have the same consequence. The matrix T should check person against the Dative subject and then be forced to check number against the embedded subject. This should result in the embedded subject having an unchecked person value and, therefore, not receiving case, just as first and second person objects cannot receive case.

For Sigurðsson and Holmberg (2008) the Person Restriction bans both Nominative subjects and embedded Nominative objects with person features from controlling agreement. However, the Person Restriction does not explain why most speakers do not allow Nominative objects with person features, while most speakers do allow embedded Nominative subjects with person features. If the issue is simply agreement, then we do not expect this asymmetry. Nominative objects with person features should pattern like embedded Nominative subjects with person features. Both should be accepted, provided that they do not trigger agreement.

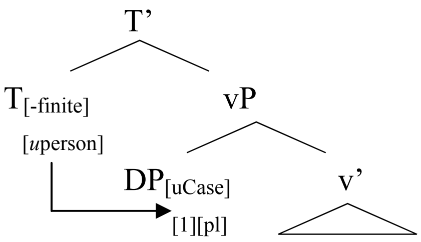
Particularly intriguing is the fact that the third plural form is not allowed in constructions exemplified by (120). As discussed in detail in Chapter 4, the third plural form is allowed with third person embedded Nominative subjects, as shown in (121).

(121) Honum mundi/mundu virðast þeir (vera) hæfir.
him.Dat would.3sg/3pl seem they.Nom.pl (be) competent
'They would seem competent to him.'
(Sigurðsson and Holmberg 2008)

Given the contrast between (120) and (121) the descriptive generalization seems to be as follows. A matrix verb can agree in number with a third person embedded Nominative subject, but a matrix verb cannot agree in number or person with a first or second person embedded Nominative subject. I show that these facts follow from the analysis proposed above.

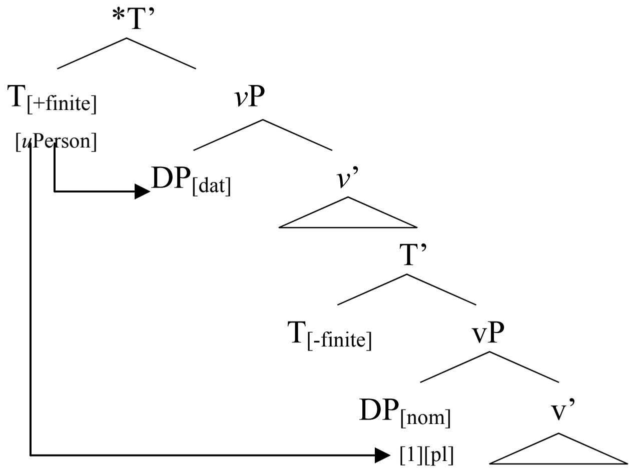
I propose that non-finite T checks the person value of an embedded Nominative subject, thereby licensing the DP. Given that Icelandic has an enriched non-finite T, as it can assign Nominative in some environments (see Chapter 5, Section 5.5 for discussion), it is reasonable to assume that non-finite T can also check person values. In (122), the derivation for (120)a, non-finite T checks the person value of the subject.

(122)



There is, of course, no morphological consequence in terms of agreement. Non-finite verbs in Icelandic do not agree, so (100)b does not apply. Because person and number values cannot be displayed on the non-finite verb, [*u*Person] on finite T may enter into a Multiple Agree relation with the embedded subject. (I assume that [Nom] on finite T values the case of the embedded subject in (123)). This proposal is akin to Bhatt's (2005) analysis of long distance agreement in Hind-Urdu, in which he argues that a DP in an embedded clause can enter into an Agree relation with a probe in the embedded clause and another Agree relation with a probe in the matrix clause (see Chapter 2, Section 2.2.4 for discussion). In (123), finite T probes both the Dative and the Nominative.

(123)



By (100)b, [person] should be realized as [default] and by (100)c, [person] should be realized as [1]. Because [pl] is copied from the Nominative, in order for the derivation to be grammatical, there must be a form of the verb which realizes [default], [1] and [pl]. As we see in (120)a, the first plural form is *mundum* and the third plural form is *mundu*. Since these forms are not syncretic, the derivation crashes. The only grammatical derivation, therefore, is one in which [*u*Person] on finite T does not probe the embedded

Nominative. Unlike in mono-clausal constructions, such a derivation is grammatical because [*u*Person] on non-finite T checks the person value of the embedded Nominative.

Just as in mono-clausal constructions, if a verbal form can realize both default person and the person value of the Nominative, the Multiple Agree derivation is grammatical. Sigurðsson and Holmberg (2008) report a "look-alike" effect for bi-clausal constructions. In (12)a, the second and third person plural forms of 'seemed' are homophonous and this form, *virtust*, is allowed. By contrast, the sentence in (12)b, patterns like the sentences in (120). Here the Nominative is first person and the first person plural form of 'seemed' is not homophonous with the third person plural form. The first plural form is not allowed and the third plural form is extremely degraded.

(124) a. Henni virt**i**st/ virt**u**st þið eitthvað einkennilegir.
her.DAT seemed.3sg/2-3.pl you.Nom.pl somewhat strange
'You seemed somewhat strange to her.'

b. Henni virt**i**st/ ?*virt**u**st/*virt**um**st við eitthvað einkennilegir.
her.DAT seemed.3sg/2-3pl/ 1pl we.Nom somewhat strange
'We seemed somewhat strange to her.'
(Sigurðsson and Holmberg 2008)

As in (120), the default form in both (124)a and (124)b arises when [*u*Person] probes only the Dative. In (124)(12)a the agreeing form arises when [*u*Person] probes both the Dative and the Nominative. Since there is a form which realizes [default], [2], and [pl], the Multiple Agree derivation is grammatical.

To summarize, first and second person embedded Nominative subjects are licensed because their person value is checked by [*u*Person] on non-finite T. When [*u*Person] on the matrix T probes only the Dative, the result is default agreement. When [*u*Person] on the matrix T probes both the Dative and the Nominative, the derivation crashes if there is a morphological conflict. If there is no conflict, the derivation succeeds and the “look-alike” effect surfaces.

3.5. Conclusion

In this chapter, I have provided an analysis of person and number agreement in Icelandic. This proposal improves on previous accounts in that it accounts not only for the asymmetry between first and second person Nominative objects and first and second person embedded Nominative subjects, but also accounts for optionality in agreement with third person post-verbal Nominatives. Additionally, I derive the “look-alike” effect that surfaces with some post-verbal Nominatives which bear person values. A crucial aspect of this proposal is the availability and optionality of Multiple Agree. In the next chapter, we see that the optionality of Multiple Agree accounts for the agreement patterns across various types of constructions with post-verbal Nominatives.

CHAPTER 4

OPTIONALITY AND VARIABILITY IN NUMBER AGREEMENT: A MULTIPLE AGREE ACCOUNT

4.0 Introduction

The central argument of this thesis is that morphological forms come about via a division of labor between the syntax and the morphology. In Chapter 3, I proposed a system by which the output of an Agree relation between a valued feature and an unvalued feature is an instruction that is interpreted by the morphological component of the grammar. In this chapter, I illustrate how this system accounts for the optionality in number agreement with third person post-verbal Nominatives in Icelandic. In particular, I show that this optionality can be derived from the optionality of Multiple Agree.

I report the findings of a survey of native Icelandic speakers that I conducted In September 2008 at the University of Iceland. This survey follows up on observations reported by Sigurðsson and Holmberg (2008), who propose three number agreement dialects for Icelandic. The survey results reported in this chapter build on Sigurðsson and Holmberg's (2008) observations and contribute to the Icelandic agreement literature in two important ways. First, I compare the rate of agreement across various types of constructions. I show that while agreement with Nominative objects and embedded Nominative subjects is optional, the rate of agreement varies systematically across constructions. I show that the rate of agreement decreases as the number of items intervening between T and the Nominative increases. Crucially, we are going to see in this chapter that when agreement is optional, judgments vary and I will derive this variability from the optionality of Multiple Agree. I argue that the more Agree relations [*u*Person] must establish in order to probe the Nominative, the less likely it is that [*u*Person] will establish an Agree relation with the Nominative. Second, I argue that the optionality of Multiple Agree accounts not only for the variability in agreement across the population, but also accounts for the optionality in agreement for individual speakers. While a small number of speakers seem to have a fixed grammar in terms of not allowing Multiple Agree for the purposes of agreement, for speakers who allow agreement with post-verbal Nominatives, the agreement is optional.

Accounting for optionality in a generative system has become a matter of great theoretical interest. One place where optionality surfaces cross-linguistically is in long distance agreement (LDA). As discussed in Chapter 2, LDA involves an item in one clause displaying agreement features of an item in a different clause. Analyses of LDA usually relate the optionality to different structures. For instance, Polinsky and Potsdam (2001) argue that LDA in Tsez only occurs when an embedded argument has moved to topic position. Other analyses relate LDA to restructuring (see Bhatt 2005 for a discussion of Hindi-Urdu and Wurmbrand (2001) and Bobaljik and Wurmbrand (2005) for a discussion of German with extensions to other languages). While optionality in cross-clausal agreement may be explained by invoking alternate structures, this type of analysis does not extend to optionality in mono-clausal constructions. The survey results reported in this chapter suggest that agreement optionality is robust in both monoclausal and biclausal constructions. The analysis argued for in this chapter provides a unified account of optionality in both mono-clausal and bi-clausal constructions, and eliminates the need for two distinct accounts of agreement in Icelandic – i.e., a restructuring account for LDA and a separate account for clause-internal agreement. Optionality in both mono-clausal and bi-clausal constructions arises from the optionality of Multiple Agree. While there have been previous accounts of Icelandic agreement in general and optionality in Icelandic agreement in particular, to my knowledge none has taken such a wide range of constructions into account.

This research program is in line with other work which models and predicts optionality. In particular, Adger (2006) provides an account of variation in the use of the past tense copula in a dialect of Scottish English spoken in Buckie, Scotland. Adger's (2006) analysis is cast in a Distributed Morphology (Halle and Marantz, 1993; Embick and Noyer 2001, 2007) model and the crux of his proposal is that optionality arises because some lexical items are underspecified. It is, therefore, possible for more than one feature bundle to be mapped to a lexical item in the morphological component of the grammar. The analysis proposed in this chapter also adopts some core assumptions of Distributed Morphology, namely that the terminal nodes of syntactic structures are comprised of feature bundles and that these feature bundles need not be fully specified before being mapped to the relevant vocabulary items.

This chapter is organized as follows. Section 4.1 outlines case assignment in the six types of constructions discussed in this chapter. In Section 4.2 I present the findings of my survey. The crucial implication of these findings is that while case is obligatory, agreement is optional in various types of constructions involving post-verbal Nominatives. In Section 4.3, I elaborate on the relationship between case and agreement and argue that a case relationship is not a prerequisite for an agreement relationship. Section 4.4 discusses alternative proposals, in particular, Bobaljik's (2008) analysis of Icelandic agreement and an analysis which might be framed in terms of defective intervention. Section 4.5 discusses the possibility that Datives can value features on T. Section 4.6 concludes and sets the stage for Chapter 5, in which I summarize the various elements of the proposal and discuss their implications.

4.1. Case Assignment

In Chapter 2, I highlight the fact that case and agreement do not necessarily pattern together. In this section, I outline my assumptions about case assignment in the constructions on which I focus in the subsequent sections. There are six types of Icelandic constructions that are relevant in this chapter; these constructions are exemplified in (125). In each example the Nominative argument is plural, as will be reflected in the derivations below. The sentence in (125)a is a standard transitive sentence, with a Nominative subject and Accusative object. The sentence in (125)b is a transitive sentence containing Dative subject and Nominative object. The sentence in (125)c is also a Dative-Nominative transitive sentence. However, (125)c differs from (125)b in that there is an expletive and the Dative subject is post-verbal. The sentence in (125)d is like those in (125)b/c in that the Nominative is post-verbal. However, (125)d is intransitive, and the sole argument is a Nominative subject. The sentences in (125)e and (125)f are bi-clausal constructions in which there is a Dative subject in the higher clause and a Nominative subject in the lower clause. (125)f is the expletive counterpart to (125)e.

(125) a. *Nominative subject – verb*$_{finite}$ *– Accusative object*
Nokkrir stúdentar sáu þessa mynd.
some students.Nom.pl saw.3pl this film.Acc.sg
‘Some students saw this film.’

b. *Dative subject – verb*$_{finite}$ *– Nominative object*
Sumum gömlum mönnum líkar/líka pípuhattar.

some.Dat.pl old.Dat.pl men.Dat.pl like.3sg/3pl top hats.Nom.pl
‘Some old men like top hats.’

c. *Expletive – verb*$_{finite}$ *– Dative subject – Nominative object*
Það líkar/líka sumum gömlum mönnum pípuhattar.
expl like.3sg/3pl some old men.Dat.pl top hats.Nom.pl
‘There like some old men top hats.’

d. *Expletive – verb*$_{finite}$ *– Nominative subject*
Það slógust/*slóst fjórir nemendur á ballinu
there fought.3pl/*3sg four students.Nom at dance-the
‘There fought four students at the dance.’

e. *Dative subject – verb*$_{finite}$ *– embedded Nominative subject – verb*$_{nonfinite}$
Einum dómara sýndist/sýndust þessar athugasemdir vera óréttlátar.
one judge.Dat.sg understood.3sg/3pl these comments.Nom.pl to be unfair
‘One judge understood these comments to be unfair.’

f. *Expletive –verb*$_{finite}$ *–Dative subject – embedded Nominative subject verb*$_{nonfinite}$
Það sýndist/sýndust einum dómara þessar athugasemdir vera óréttlátar.
expl understood.3sg/3pl one judge.Dat.sg these comments.Nom.pl be unfair
‘There understood one judge these comments to be unfair.’
(examples based on those appearing throughout Thráinsson 2007)

In the remainder of this section I discuss how case is assigned in each of these constructions. This section is very detailed and readers familiar with the standard assumptions about case assignment (eg, Chomsky 2000) may wish to skip this section.

4.1.1. Nominative subject verb$_{[+finite]}$ Accusative object

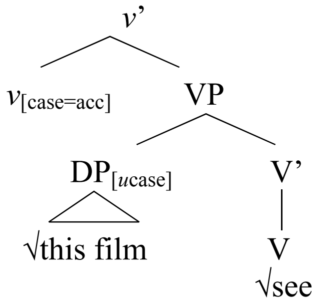
Since I am concerned only with number agreement in this chapter, all of the examples feature third person Nominatives. As such, these DPs do not have a person value. Additionally, I follow the Distributed Morphology notation in which roots (the abstract representations of lexemes) are inserted into terminal nodes. Throughout the course of a derivation, roots are combined with feature bundles that are either checked or valued via Agree relations. Each root and its feature bundle is then mapped to a corresponding lexical item in the Morphological Component of the grammar.

Icelandic adheres to Burzio's Generalization (2000), and as such, the licensing of an external argument is associated with Accusative case assignment. Following Chomsky (2000), I assume that the *v* head in Icelandic has the dual role of projecting a specifier in which the external subject is merged and of assigning Accusative case to the object in constructions such as (125)a, repeated below as (126).

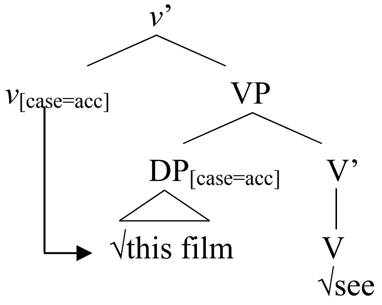
(126) *Nominative subject – verb*$_{finite}$ *– Accusative object*
Nokkrir stúdentar sáu þessa mynd.
some students.Nom.pl saw.3pl this film.Acc.sg
'Some students saw this film.'

In (127)a, the object DP is merged with an unvalued case feature and valued phi features and *v* is merged with a valued Accusative case feature. In (127)b, *v* probes the object and values the case feature to Accusative.

(127) a.[20]



b.



In (128)a, the subject is merged in the specifier of *v*P; the subject is merged with a valued number feature and an unvalued case feature. In (128)b, T is merged. Like *v*, T is merged

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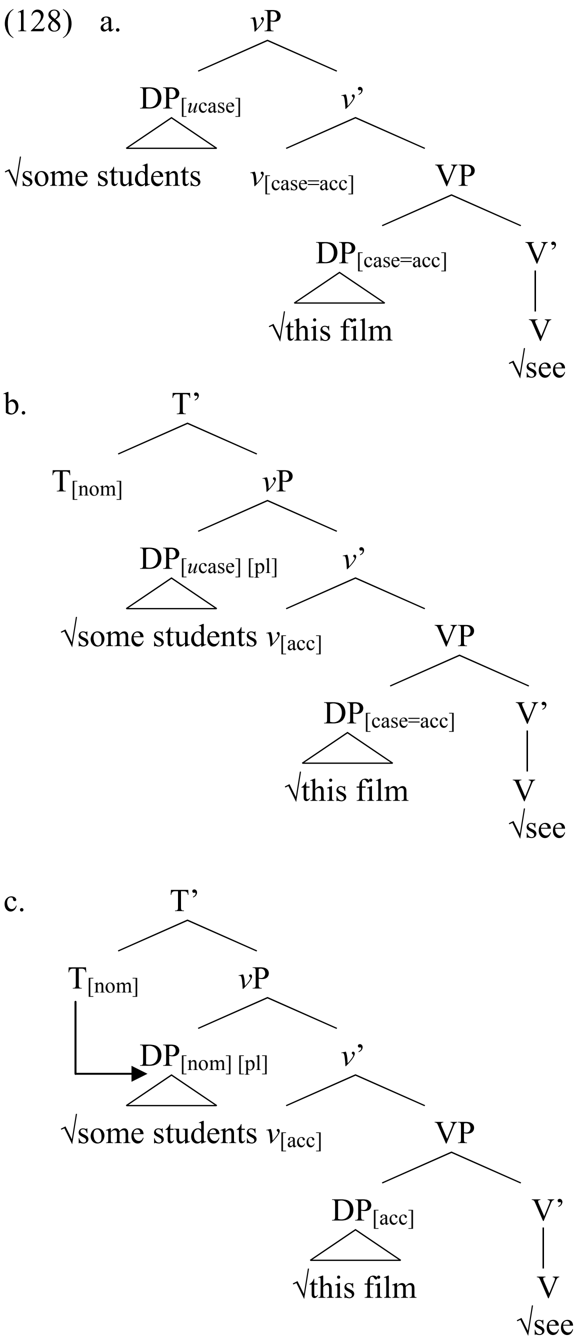
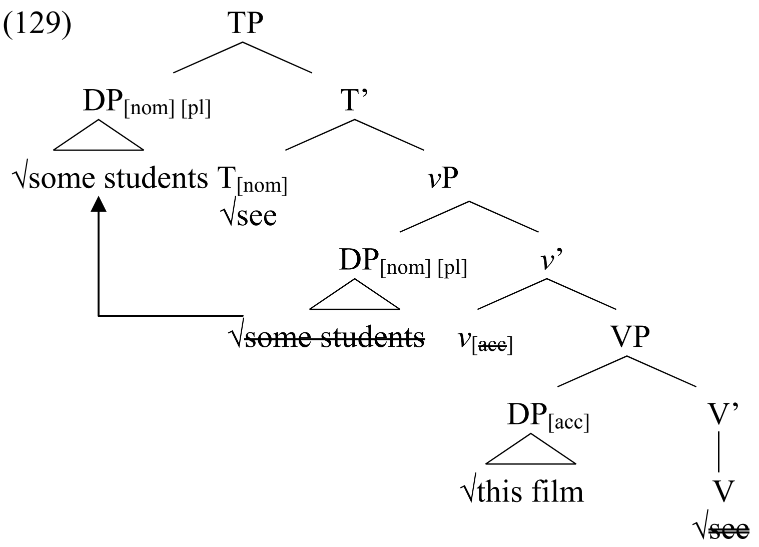
[20] I have collapsed the root nodes of the DP internal items.

with a valued case feature. Based on the proposal outlined in Chapter 3, T is merged with a [Nom] feature that probes for a DP with an unvalued case feature. Therefore, in (128)c, T probes for a DP with an unvalued case feature and values Nominative on the subject.



As shown in (129), the subject moves to Spec,TP to satisfy EPP.

(129)



It should be noted that the sentence in (129) is a TP, and not a CP. The standard account of V2 languages is that the finite verb moves to C and that the item which precedes the verb occupies Spec,CP. Unlike Germanic languages in which only main clauses are V2, in Icelandic, both main clauses and embedded finite clauses are V2. As shown in the embedded clauses in (130) both main verbs and auxiliaries occupy the second position.

(130) a. Ég veit að Jón **las** ekki þessa bók.
I know that John **read** not this book
'I know that John did not read this book.

b. Ég veit að Jón **hefur** ekki lesið þessa bók.
I know that John **has** not read this book
'I know that John has not read this book.'

c. *Ég veit að Jón ekki **las** þessa bók.
I know that John not read this book

d. *Ég veit að Jón ekki **hefur** lesið þessa bók.
I know that John not has read this book (Jóhnsson 1996:10)

It has, therefore, been argued that Icelandic V2 is characterized by the verb moving to T, since movement to C would be blocked by the presence of a complementizer in an embedded clause. On some accounts, subject initial main clauses are TPs while topic-initial and WH main clauses are CPs (see Ottósson 1989 and Sigurðsson 1990 for discussion). On other accounts, all main clauses are TPs (see Rögnvaldsson and Thráinsson 1990 for discussion). Since there is no topic, the representation in (129) is consistent with both types of accounts.

4.1.2. Dative subject verb$_{[+\text{finite}]}$ Nominative object

As in constructions with Nominative subjects and Accusative objects, in constructions with Dative subjects and Nominative objects, both DPs are merged with valued phi features and an unvalued case feature. However, in these constructions, the subject is merged in the specifier of $v\text{P}_{\text{Dat}}$ (see McFadden 2004, Woolford 2006a for discussion). In constructions with structural case on both the subject and the object, *v* assigns Accusative. However, in constructions with a non-structurally case marked subject, *v* does not assign Accusative. Dative subjects in Icelandic are experiencers and *v* does not assign Accusative because there is no external argument. The sentence in (125)b is repeated in (131) and the derivation is shown in (132) - (134).

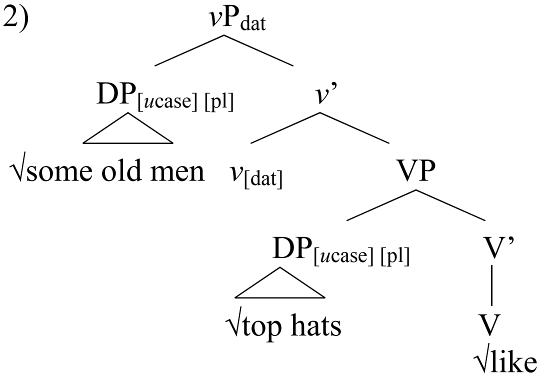
(131) *Dative subject – verb$_{finite}$ – Nominative object*

Sumum	gömlum	mönnum	líkar/líka	pípuhattar.
some.Dat.pl	old.Dat.pl	men.Dat.pl	like.3sg/3pl	top hats.Nom.pl

‘Some old men like top hats.’

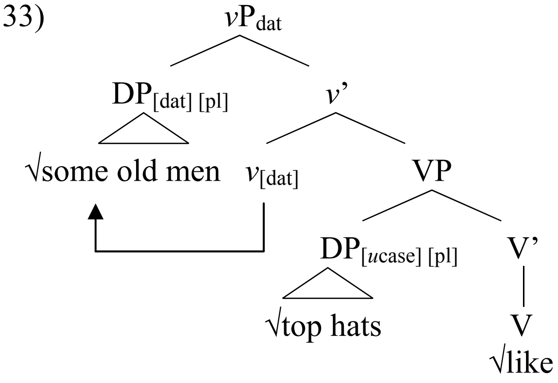
In (132), v_{dat} is merged as the sister to VP and the subject is merged in the specifier.

(132)



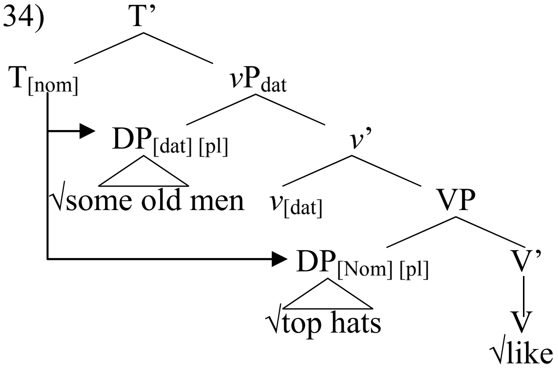
Non-structural case differs from structural case in that non-structural case is licensed in connection with theta marking (Chomsky 1981, Woolford 2006a). Items merged in the specifier of a non-structural case-assigning head are necessarily assigned the relevant case. Therefore, in (133), v_{dat} values Dative on the subject.

(133)



As in (128)b, T is merged with a valued Nominative feature. However, unlike in (128)b, in (133) the case feature on the subject has been valued, while the case feature on the object is unvalued. Therefore, the [Nom] feature on T probes the object and values Nominative, as shown in (134).

(134)

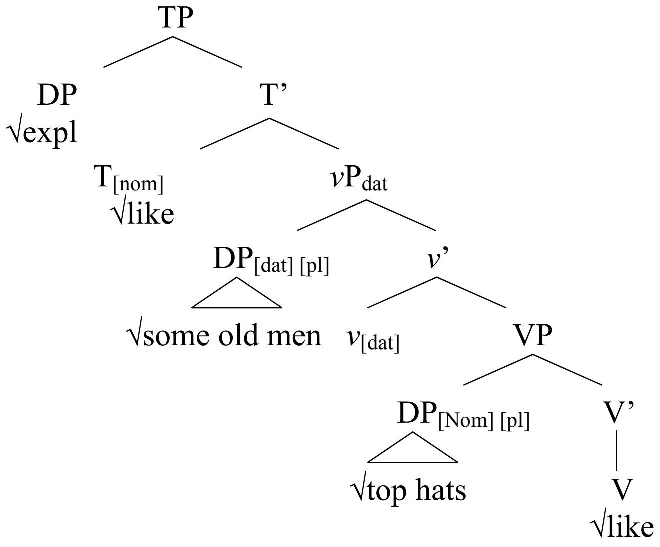


In Chapter 3 I proposed a system in which a probe necessarily establishes an Agree relation with the closest goal. Therefore in (134) [Nom] probes the Dative prior to probing the Nominative. As discussed in Chapter 3, there is no morphological consequence of an Agree relation between two valued features. Crucially, the derivation crashes if [Nom] does not probe past the Dative, as the object is left with an unvalued case feature. In subsequent derivations, I omit the Agree relation between [Nom] and the Dative subject. The final stage of the derivation in (134) is that the subject moves to Spec,TP to satisfy EPP.

4.1.3. Expletive verb$_{[+finite]}$ Dative Nominative

I assume that in constructions with expletives, case is assigned in the same manner as in constructions without expletives. In (135), the subject is assigned Dative by the v_{dat} head and [Nom] on T values [Nom] on the object. However, in (135), there is no EPP relationship between T and the subject. The subject remains in its *v*P internal position and an expletive is merged in Spec, TP.

(135)



As mentioned above, on some accounts topic-initial main clauses have a CP structure. Jónsson (1996) convincingly argues that expletives occupy Spec,TP, as opposed to topics, which occupy Spec,CP. The first argument is that *það* appears freely in embedded clauses, while embedded topicalization is quite restricted. Jónsson (1996) reports that there is a contrast for most speakers between the sentence in (136)a, in which *það* appears in the embedded clause and the sentence in (136)b, in which the adverb in the embedded clause has been topicalized.

(136) a. Þetta er maðurinn sem **það** var talað við í sjónvarpinu í gær.
this is the man that **there** was talked to on the TV yesterday
(Jónnson 1996, from Rögnvaldsson and Thráinsson 1990:31)

b. *Þetta er maðurinn sem **í gær** var talað við í sjónvarpinu.
this is the man that **yesterday** was talked to on the TV
(Jónnson 1996:48)

Additionally, *það* and theta-marked subjects appear to the right of the main clause complementizer *ætli*, as in (137)a/b. Topicalized items cannot appear in this position, as in (137)c.

(137) a. Ætli það verði talað við Jón á morgum?
wonder there will-be talked to John tomorrow
'Will John be interviewed tomorrow?' (Jónnson 1996:49)

b. Ætli Jón verði talaður víð á morgum?
wonder John will-be talked to tomorrow
'Will John be interviewed tomorrow?

c. *Ætli á morgum verði talað við Jón?
wonder tomorrow will-be talked to John
'Will John be interviewed tomorrow?' (Jónnson 1996:49)

Third, items can be extracted out of clauses containing *það*, but not out of clauses in which topicalization has occurred. WH-movement out of the embedded clause in (138)a is allowed, while this movement is blocked in (138)b.

(138) a. Hvenær$_i$ heldur þú [að það verði talað við Jón t$_i$]?
when think you that there will-be talked to John
'When do you think that John will be interviewed?' (Jónnson 1996:49)

b. *Hvenær$_i$ heldur þú [að við Jón verði talað t$_i$]?
when think you that to John will-be talked
'When do you think that John will be interviewed?' (Jónnson 1996:49)

Given these differences, Jónsson (1996) concludes that expletives occupy Spec,IP and theta-marked subjects occupy Spec-TP. Since we now have evidence that case assignment does not require a Spec-head relationship, we do not need to posit distinct IP and TP levels for constructions containing both an expletive and a theta-marked subject. The subject in these types of sentences can remain in a *v*P internal position and be assigned case under c-command. Therefore, I assume a structure in which there is simply a TP projection and in which both subjects and expletives occupy the specifier position.[21] That the expletive is merged in Spec,TP is relevant to my account of optionality in agreement. In Section 4.2, I argue that [uPerson] probes its specifier – Spec,TP – and enters into an Agree relation with the expletive.

I assume that an expletive is merged devoid of any valued features and acquires the features necessary for semantic interpretation via feature sharing with its associate. I formalize this relationship in (139).

(139) An item which bears no features probes the closest indefinite DP. All features of that DP are copied onto the expletive.

The statement in (139) expresses the fact that expletives are, in essence, “empty” lexical items which only come to have an interpretation via a relationship with a DP. I assume that both the case and phi features of an expletive’s associate are copied onto the expletive. Crucially, in Icelandic Dative-Nominative constructions, the Dative is the associate of the expletive, not the Nominative. As shown in (140), the Nominative is definite, while the Dative is indefinite.

(140) Það mistókst/ mistókust mörgum stúdentum allar tilraunirnar
expl failed.3sg/3pl many students.Dat all attempts-the.Nom
‘There failed many students all the attempts.’
(based on Sigurðsson 1996:ex51/52b)

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[21] Also see Jonas and Bobaljik (1996) for a detailed discussion of transitive expletive constructions in Icelandic.

That the expletive bears the features of the Dative subject is crucial to the discussion of agreement. The expletive is unable to value [*u*Person] in constructions such as (140) because, in essence, the expletive is a Dative DP. As we will see, in expletive constructions in which there is only one argument and that argument is Nominative, the expletive shares the features of the Nominative, and these constructions pattern like those with preverbal Nominative subjects in that agreement is obligatory.

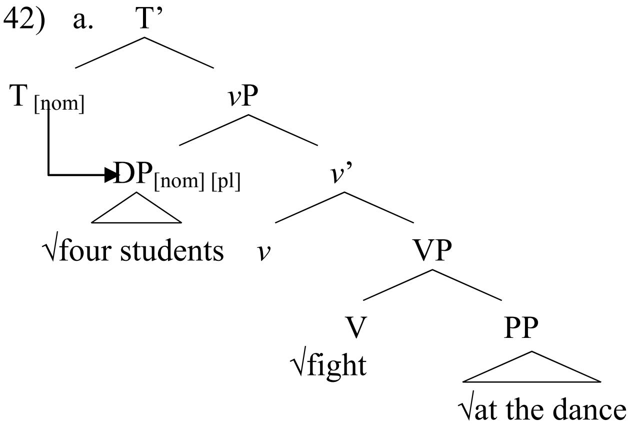
4.1.4. Expletive verb$_{[+finite]}$ Nominative

Up until this point we have looked only at transitive sentences. Icelandic also allows for indefinite subjects to appear post-verbally in intransitives. Of course, subjects of intransitives can also be preverbal, but here I focus on intransitives with post-verbal Nominatives. The unergative sentence in (125)d is repeated below in (141).

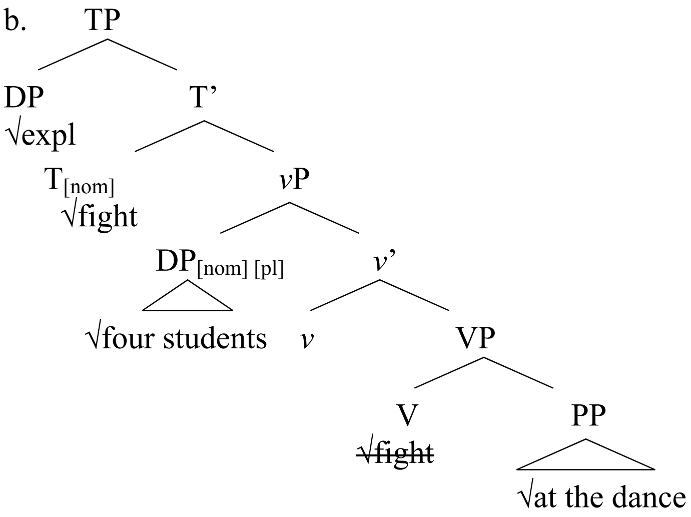
(141) *Expletive – verb$_{finite}$ – Nominative subject*
Það slógust fjórir nemendur á ballinu
there fought.3pl four students.Nom at dance-the
'There fought four students at the dance.'

In the derivation in (142)a, the subject is merged in Spec,*v*P and Nominative is assigned to the subject. In (142)b an expletive is merged in Spec,TP.

(142)



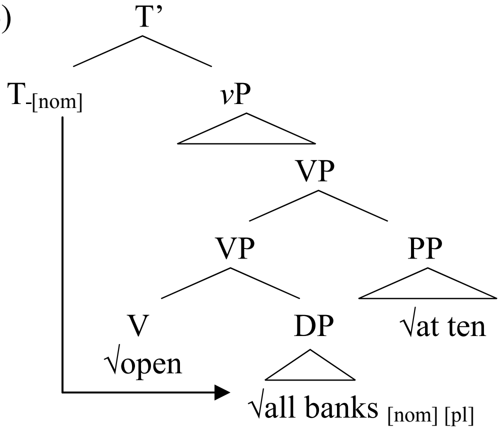
b.



In unaccusative sentences such as (143), [Nom] also values the case of the sole argument. In unaccusative constructions, *v* is merged without an accusative feature. Therefore, even though the subject is merged in object position in (144), it cannot receive Accusative case from *v*.

(143) Það opnuðu allir bankar klukkan tíu
expl open.3pl all.Nom banks.Nom.pl clock ten
'All banks open at 10.'

(144)



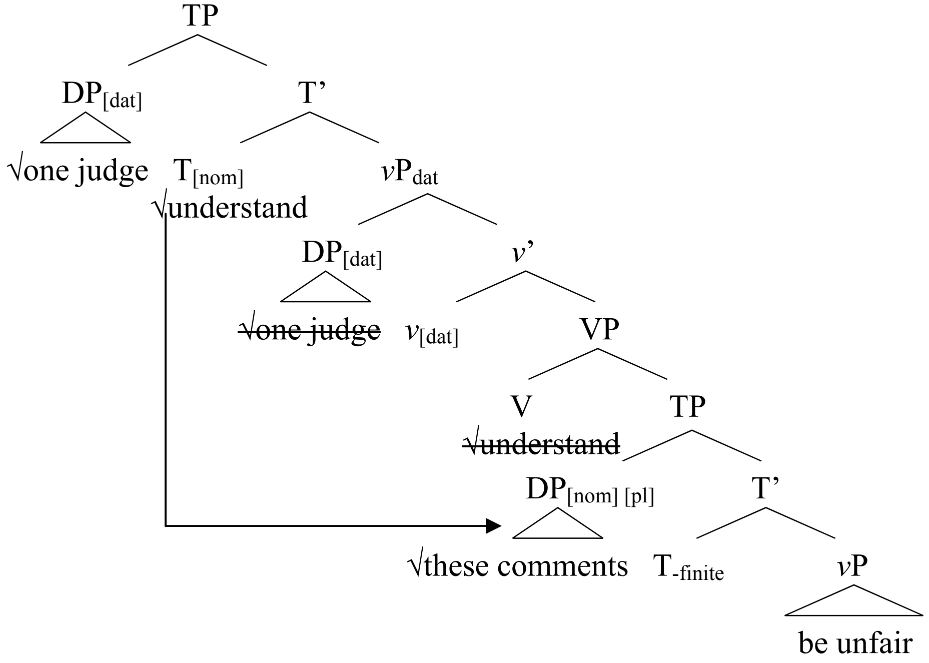
As in (142)b an expletive is merged in Spec,TP.

Even though unaccusatives pattern like Dative-Nominative constructions in that [Nom] values the case of a DP that is not merged in Spec,TP, we will see that these two types of constructions differ with respect to their agreement patterns.

4.1.5. Dative verb [$_{\text{TP}}$ Nominative verb $_{\text{[-finite]}}$…]

At this point, we turn to case assignment in bi-clausal constructions in which the matrix verb takes a Dative subject and the complement clause is non-finite and contains a Nominative subject. Even though there is evidence that non-finite T in Icelandic assigns Nominative (see Chapter 5, Section 5.5 for discussion), in the bi-clausal constructions examined in this dissertation, [Nom] on finite T values the case feature of the embedded subject, as shown in (145).

(145)

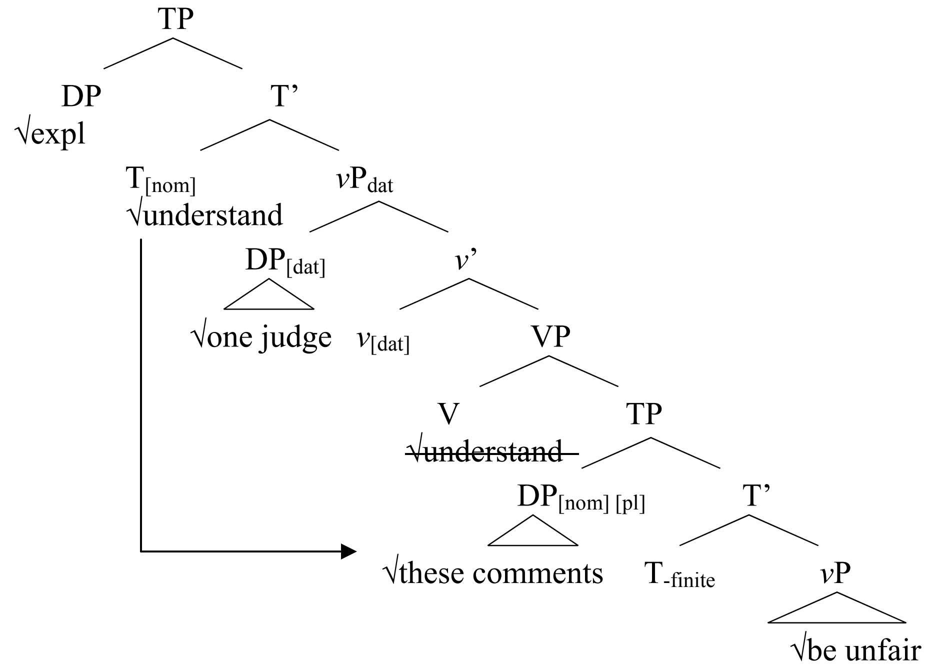


Because the embedded subject is at the edge of the lower clause, it is sufficiently local to the matrix T, and [Nom] can probe it. A probe enters into an Agree relation with a goal that is either in the same clause or at the edge of the embedded clause. As we will see in Section 4.4.2, [*u*Person] also obeys the same locality conditions as [Nom].

4.1.6. Expletive Dative verb [$_{\text{TP}}$ Nominative verb $_{\text{[-finite]}}$…]

Like mono-clausal constructions, the matrix clause in bi-clausal constructions may contain an expletive. Case assignment proceeds in the same way as outlined in (145). However, instead of finite T probing the Dative subject to satisfy EPP, an expletive is merged in (146) and the expletive shares the features of its Dative associate.

(146)



At this point, we have a clear understanding of how case is assigned in the relevant constructions. As we turn to agreement, the crucial point to bear in mind is that while Nominative is assigned to the relevant DPs in the constructions discussed above, these DPs do not necessarily trigger agreement on the finite verb. Even though [Nom] on finite T is in an Agree relation with an object, [*u*Person] on finite T may or may not be in an Agree relation with that same DP.

4.2. Multiple Agree and Agreement

In this section, I propose an analysis of agreement in Icelandic which accounts for the observation that the likelihood of agreement depends on the type of construction. The proposal is based on the results of a survey of native Icelandic speakers and the results suggest that while agreement with post-verbal Nominatives is optional, the rate of agreement is systematic. I relate the systematic nature of the agreement patterns to the availability and optionality of Multiple Agree. I argue that the more items [*u*Person] must probe in order to probe the Nominative, the less likely it is that [*u*Person] will establish an Agree relation with the Nominative. In essence, the more interveners that [*u*Person] encounters en route to the Nominative, the less likely it is that [*u*Person] will actually reach the Nominative.

4.2.1. Variability and Optionality

In September 2008, I conducted a survey of sixty-one native speakers of Icelandic. All participants were students in an introductory linguistics class at the University of Iceland. Eleven of the participants were students in an introductory general linguistics course and completed the survey during class. The other fifty participants were students in an introductory syntax course and completed an electronic version of the survey. These students received the survey via e-mail and e-mailed back their completed form.

There were 24 survey items and 30 fillers.[22] The fillers were comprised of various items that were used in a large scale study on agreement conducted by a research group

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[22] The survey also included items which are not reported on here. These items included agreement in passives and agreement with conjoined Nominative objects.

investigating variation in Icelandic agreement. Some of the fillers involved agreement; some involved case; some involved decisions about forms for pronominals or reflexives. All items consisted of a sentence in which two forms of the target word were bolded. Participants were instructed to read each item and to circle (or underline for those who received the questionnaire via e-mail) the form of the bolded word that they are most likely to use in casual conversation. At the end of the survey, participants were asked to look back over their choices and indicate if they might also use the form of the word that they did not circle, and if so, if there would be any difference in meaning or emphasis.[23] There were two counter-balanced forms so that an individual did not see more than one form of the items that have two versions. For instance, a participant who judged a particular Dative-Nominative sentence did not also judge the expletive counterpart to that sentence.

The survey items included several examples of the post-verbal Nominative constructions discussed in the previous section. Examples of the relevant constructions are repeated in (147) and the rate of agreement in each construction is summarized in (148). All items contained a third person plural post-verbal Nominative. A comprehensive list of survey items is included in the appendix.

(147) a. Expletive – verb$_{\text{finite}}$ – Nominative subject
Það slógust/*slóst fjórir nemendur á ballinu
there fought.**3pl/*3sg** four students.**Nom** at dance-the
'Four students fought at the dance.'

b. Dative subject – verb$_{\text{finite}}$ – Nominative object
Sumum gömlum mönnum líkar/líka pípuhattar.
some.Dat.pl old.Dat.pl men.Dat.pl like.**3sg/3pl** top hats.**Nom.pl**
'Some old men like top hats.'

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[23] The vast majority of participants did not write any responses. However, a few participants indicated that there might be a slight difference in emphasis between the agreeing and non-agreeign form of a verb. I leave open the question of whether there could be a subtle semantic distinction between the agreeing and non-agreeing forms.

c. Expletive – verb$_{\text{finite}}$ – Dative subject – Nominative object
Það líkar/líka sumum gömlum mönnum pípuhattar.
expl like.**3sg/3pl** some old men.Dat.pl top hats.**Nom.pl**
'There like some old men top hats.'

d. Dative subject – verb$_{\text{finite}}$ – embedded Nominative subject – verb$_{\text{nonfinite}}$
Einum dómara sýndist/sýndust þessar athugasemdir vera óréttlátar.
one judge.Dat.sg understood.**3sg/3pl** these comments.**Nom.pl** to be unfair
'One judge understood these comments to be unfair.'

e. Expletive – verb$_{\text{finite}}$ – Dative subject – embedded Nominative subject – verb$_{\text{nonfinite}}$
Það sýndist/sýndust einum dómara þessar athugasemdir vera óréttlátar.
expl understood.**3sg/3pl** one judge.Dat.sg these comments.**Nom.pl** be unfair
'There understood one judge these comments to be unfair.'

(148)

Word Order	**Rate of Agreement**
A. Expl-verb-Nom	100%
B. Dat-verb-Nom	46.6%
C. Expl-verb-Dat-Nom	35.8%
D. Dat-verb-[$_{\text{TP}}$ Nom…]	36%
E. Expl-verb-Dat[$_{\text{TP}}$ Nom…]	17.5%

The percentages in (148) indicate the percentage of times that the plural form of the verb was selected. The differences between the transitive sentences and their transitive expletive counterparts is statistically significant. That is, $p < .05$ for the difference between (148)b and (148)c, as well as for the difference between (148)d and (148)e. These results reveal a pattern that has not heretofore been reported in the literature. While it has been reported that agreement with post-verbal Nominatives is optional in Icelandic, it has been not previously observed that the rate of agreement varies depending on the type of construction. The crux of my analysis is that the Agree relation between [*u*Person] and the closest goal is obligatory while subsequent Agree relations are optional.

Many of the proposals which account for optionality in either case or agreement adopt a restructuring analysis. This is because optionality often surfaces in cross-clausal environments. Some earlier examples illustrating this fact are repeated below. In the Hindi-Urdu sentences in (149) the matrix verb agrees with the matrix verb 'want' agrees either with the embedded object 'branch' or displays default agreement. In the embedded German clauses in (150), the object is either Nominative or Accusative.

(149) a. Hindi-Urdu, LDA
Shahrukh-ne [tehnii kaat -nii] chaah-ii thii
Shahrukh-Erg branch.Fem. cut-Inf.Fem. want-Pfv.Fem. be.Pst.Fem.Sg
'Shahrukh had wanted to cut the branch.'

b. Hindi-Urdu, no LDA
Shahrukh-ne [tehnii kaat-naa] chaah-aa thaa
Shahrukh-Erg branch.Fem cut-Inf.Masc. want-Pfv.Masc.Sg. be.Pst.Masc.Sg.
'Shahrukh wanted to cut a/the branch.' (Bhatt 2005)

(150) a. German, Restructuring
…dass der Traktor zu repairen versucht wurde
that the tractor-Nom to repair tried was
'that they tried to repair the tractor'

b. German, Non-restructuring
…dass den Traktor zu repairen versucht wurde
that the tractor-Acc to repair tried was
'that they tried to repair the tractor' (Wurmbrand 2001)

On Bhatt's (2005) analysis of Hindi-Urdu, the complement clause in (149)a is a restructuring complement, meaning that the complement clause does not have a full clausal structure. In particular, there is not a Tense projection. The absence of an embedded T makes the complement clause permeable, such that items in the lower clause can enter into Agree relations with items in the higher clause. On this analysis, the matrix T probes the embedded object, resulting in the matrix verb displaying the phi features of the object. Restructuring is argued to be optional (Wurmbrand 2001) and, as such, the complement clause in (149)b is not restructuring. Here, the embedded clause does have a Tense projection, making the clause impermeable. Items in the matrix clause cannot enter into Agree relations with items in the lower clause. Therefore, the matrix verb displays default agreement (verbs in Hindi-Urdu do not agree with Ergative arguments, so 'want' cannot agree with the subject *Shahrukh*). Likewise, on Wurmbrand's (2001) analysis of German, the embedded clause in (150)a is restructuring. In addition to lacking a Tense projection, Wurmbrand (2001) argues that the embedded clause also lacks *v*P. As such, Accusative case cannot be valued on the object. Since the lower clause is permeable, Nominative is valued on the embedded object by the matrix T. Conversely, in (150)b, the embedded clause is a full clausal complement. It contains a *v*P and Accusative is valued on the object.

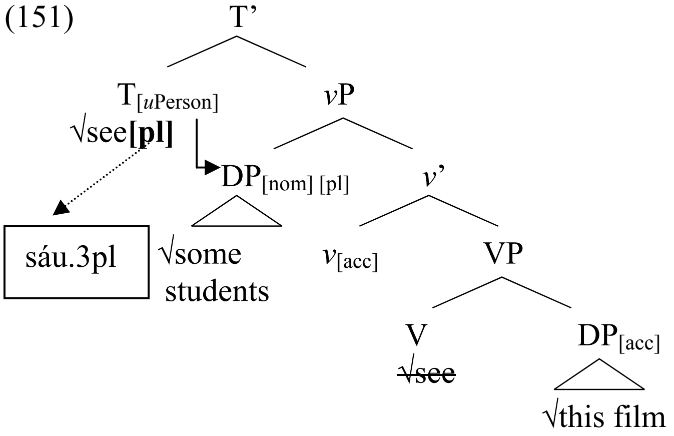
Crucially, the optionality exemplified in (149) and (150) is restricted to bi-clausal constructions. In Hindi-Urdu mono-clausal constructions with Ergative subjects, the verb necessarily agrees with the object. In German mono-clausal constructions, the case of the object is fixed and is Accusative if the subject is Nominative. Icelandic is, therefore, unique in allowing optionality in mono-clausal constructions. While a restructuring account might be able to explain the optionality in constructions such as (147)d and (147)e, such an account cannot explain the optionality in the mono-clausal constructions in (147)b and (147)c.

Returning to the agreement patterns in (148), the first fact that bears discussion is that constructions such as (147)a do not exhibit optionality in agreement. Unlike other constructions with post-verbal Nominatives which have been discussed in the literature, intransitives necessarily agree, and interestingly, unaccusatives and unergatives pattern the same way. Survey participants selected the agreeing form of the verb almost 100% of the time for both types of constructions. These constructions, therefore, pattern like those with pre-verbal Nominative subjects. This fact is relevant for two reasons. First, a question raised by the Dative-Nominative constructions in Icelandic is whether the optionality and variation arises because some speakers do not readily accept constructions that begin with an expletive (Jónsson, p.c.). If this were the case, then what appears to be a failure of agreement is actually a rejection of the entire construction. If speakers sometimes reject expletive constructions, then we expect variation and optionality in expletive constructions across the board, but this is not the case.

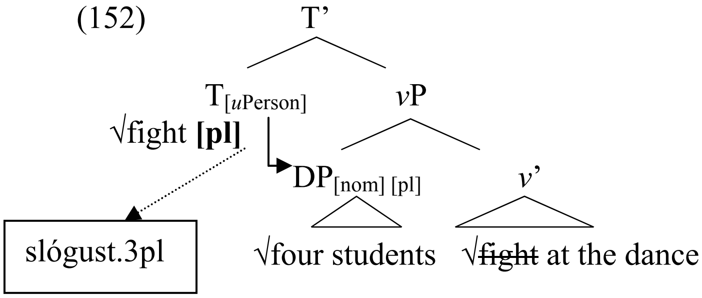
Second, these findings suggest that agreement in Icelandic patterns differently from agreement in languages such as Standard Arabic and Northern Italian dialects. As discussed in Chapter 2, in these languages, agreement is degraded simply because the Nominative is post-verbal. However, in Icelandic, it seems as if the presence of the Dative affects agreement. In constructions in which there is a single argument and that argument is Nominative, agreement is mandatory, irrespective of whether the Nominative is preverbal or post-verbal.

I propose that obligatory number agreement results when [*u*Person] probes the closest DP and that DP bears [pl]. In both constructions with pre-verbal Nominative subjects and constructions with a sole post-verbal Nominative argument, the closest DP bears the [pl] feature. In both (151) and (152), the closest DP is the Nominative.

(151)



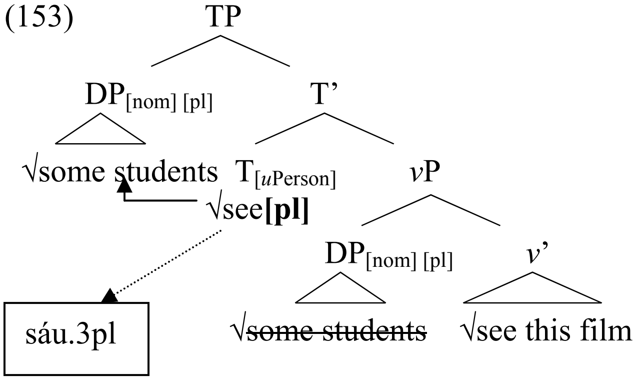
(152)



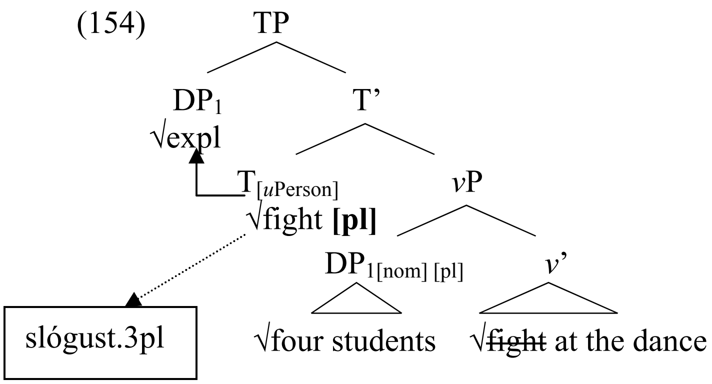
We can relate the obligatory agreement in constructions such as (151) and (152) to the obligatory Agree relation between [*u*Person] and the closest DP.

If we adopt an approach in which the timing of operations is constrained by phases, as opposed to an approach in which a head (or its concomitant features) probes as soon as it is merged, then it is conceivable that [*u*Person] could probe after the subject has moved to Spec, TP or after the expletive has been merged. Since EPP is independent of both [Nom] and [*u*Person] probing, [*u*Person] could probe after Spec,TP has been filled. We, nonetheless, get the same result. In the derivations in (153) and (154), [*u*Person] probes Spec, TP.

(153)

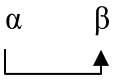


(154)



As Agree was defined in Chapter 3, Agree relations can hold in a Spec-head configuration or under c-command. Additionally, I proposed that a probe necessarily establishes an Agree relation with the closest goal. These conditions on Agree are repeated in (155) and (156).

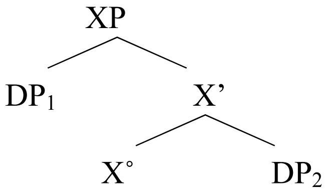
(155)



(cf Chomsky 2000)

Agree (α, β), where α is a probe and β is a matching goal and β is in the specifier of α or α c-commands β. Uninterpretable features of α and β are checked/deleted.

(156) DP_1 is closer to X than DP_2 is when DP_1 c-commands DP_2.



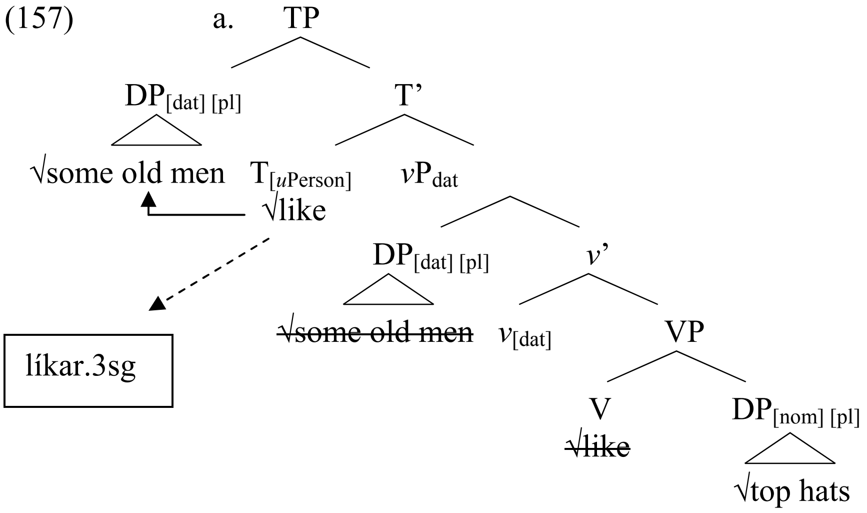
(Chomsky 2000)

Since the expletive in (154) shares the features of the Nominative an Agree relation with the expletive has the same consequence as an Agree relation with the Nominative. I return the discussion of the directionality of probing in Chapter 5, Section 5.6. As we will see, the difference in the rate of agreement between Dative-Nominative constructions and their transitive counterparts suggests that [*u*Person] probes after the expletive has been merged. For this reason, I will also assume that [uPerson] probes after the subject has moved to Spec,TP in non-expletive constructions. Therefore the trees throughout the rest of this chapter, reflect this ordering of operations.

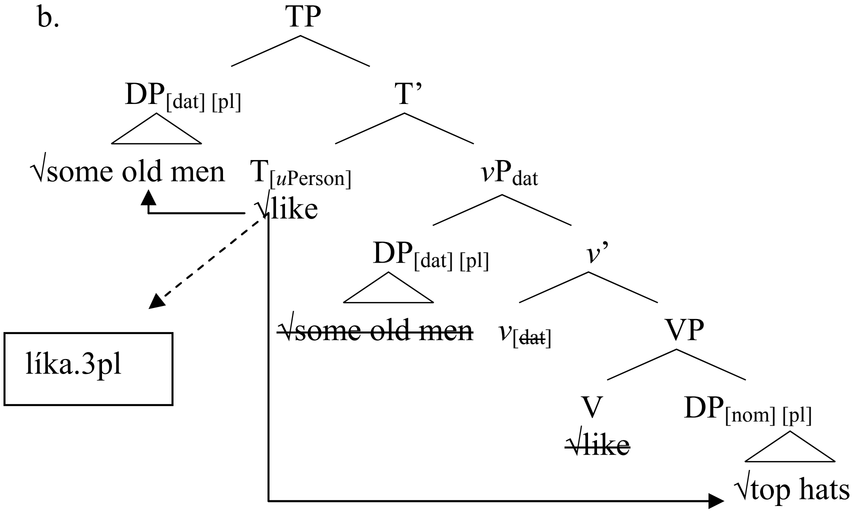
Just as in the unergative construction in (152) and (154), in unaccusatives, [*u*Person] also probes the expletive, and the number feature of the Nominative is copied onto T. Since arguments of unaccusatives have Nominative valued in their VP-internal position, it cannot be that agreement is obligatory only when Nominative is assigned in a particular structural position, such as Spec,*v*P. Nor is there evidence that the subject is pronounced in a higher position, so we cannot propose that agreement is obligatory only when the Nominative is pronounced in Spec,TP or Spec,*v*P. In constructions with Nominative subjects or constructions with a sole Nominative argument, the Agree relation between [*u*Person] and the closest DP results in the number feature of that DP being copied onto T.

Unlike in intransitive constructions, in other types of constructions with post-verbal Nominatives, agreement is optional. The structure for *Dative-Verb-Nominative* sentences is repeated below in (157). In (157)a [*u*Person] probes only the Dative. [*u*Person] remains unvalued and no number feature is copied onto T, since the number feature of a Dative cannot be copied. Therefore, the feature bundle for the verb is mapped to the default form. In (157)b, however, [*u*Person] probes both the Dative and the Nominative. Since the number feature of the Nominative is copied onto T, the feature bundle for the verb is mapped to the agreeing form.

(157) a.



b.



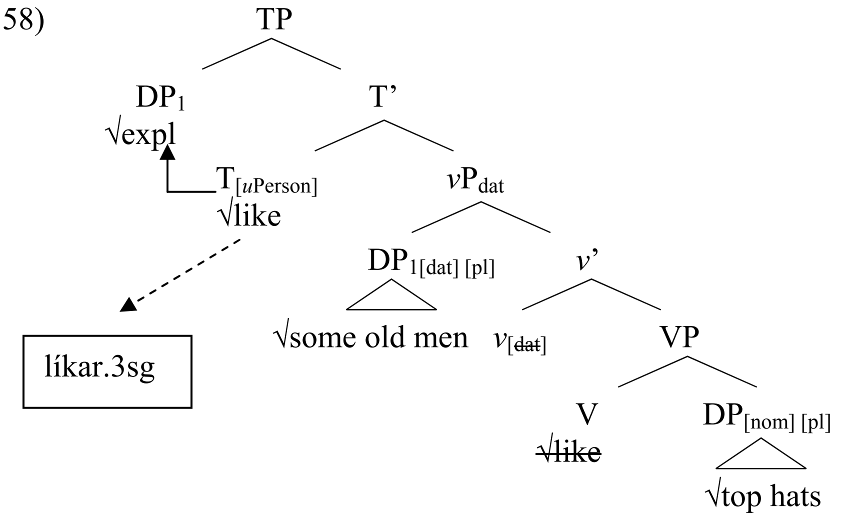
The type of morphological conflict discussed in Chapter 3 does not arise in constructions such as (157)b. When [*u*Person] probes a Dative it is spelled out as default. Likewise, when [*u*Person] probes a third person Nominative, it is also spelled out as default. Therefore, in constructions such as (157)b, the verb is mapped to the form that realizes a [default] person feature and a [pl]number feature.

The difference between the construction in (157)b and those in (153)and (154)is that in (164)b, an additional Agree relation is required in order for [*u*Person] to probe the Nominative. That agreement is obligatory in (153)and (154), but optional in (157) suggests that the first Agree operation – that is, the Agree operation between [*u*Person] and the closest goal – is obligatory, while additional Agree operations are optional. If Multiple Agree is optional, then at every point in a derivation in which Multiple Agree is possible, we expect that sometimes speakers will opt for [*u*Person] to probe the next goal, while other times, speakers will opt for [*u*Person] to stop probing. This is precisely what we find.

Given the survey results, the derivation in (157)b applies only around 47% of the time. If probing past the closest DP introduces the possibility that agreement will fail, then we expect agreement to fail at a higher rate if another Agree relation must be established in order for [*u*Person] to probe the Nominative, and this is precisely what happens.

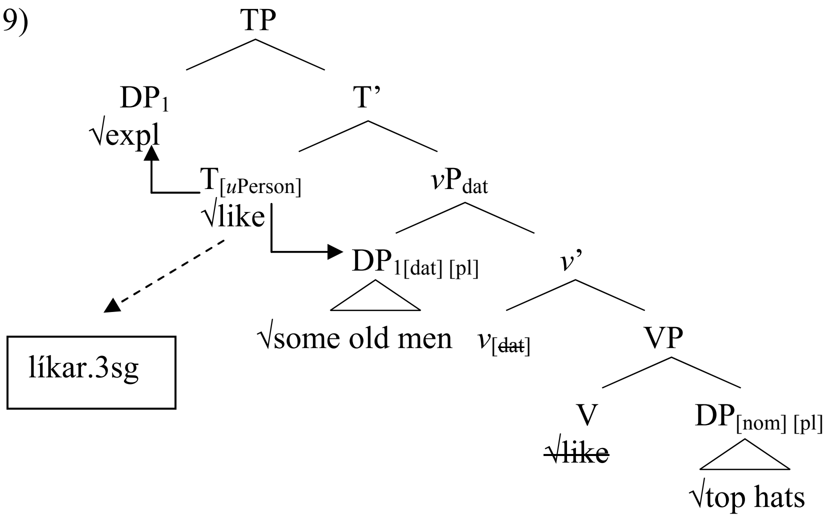
In *Expl-verb-Dative-Nominative* constructions, the rate of agreement is 35.8%. In (158) [*u*Person] probes only the expletive. Because the expletive bears the features of its Dative associate, [*u*Person] is spelled out as default and no number feature is copied onto T. The feature bundle for the verb is, therefore, mapped to the default form.

(158)



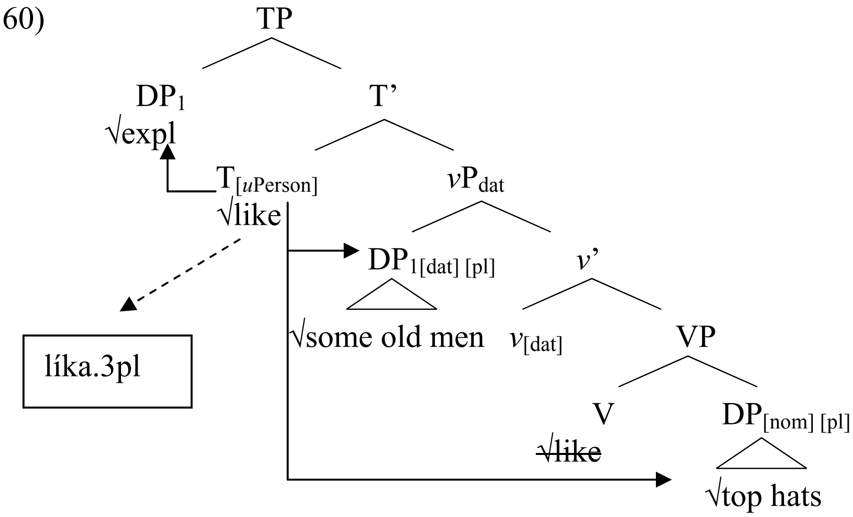
In (159) [*u*Person] probes both the expletive and the Dative, with the result being the same as in (158). The verb is mapped to the default form.

(159)



However, in (160), [*u*Person] probes the expletive, the Dative, and the Nominative. Here the verb is mapped to the third plural form because the number feature of the Nominative is copied.

(160)

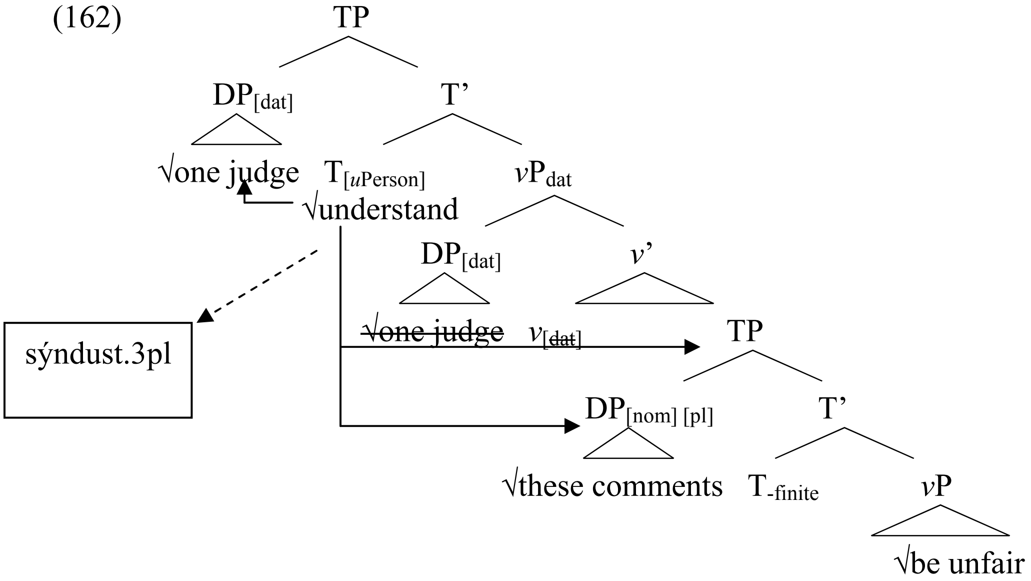


As noted above, the contrast between the rate of agreement in *Dat-verb-Nom* constructions and *Expl-verb-Dat-Nom* constructions suggests that [*u*Person] probes after the expletive has been merged. If [*u*Person] probes as soon as T is merged, then in both constructions, we have the string in (161), and we would not expect a difference in the rate of agreement.

(161) $T_{[u\text{Person}]}$ Dat Nom

Interestingly, the rate of agreement in constructions with a Dative matrix subject in Spec, TP and an embedded Nominative subject is almost identical to the rate of agreement in *Expl-verb-Dative-Nominative* constructions, 36% I propose that this is because the embedded clause is an argument of the matrix verb. Therefore, [*u*Person] probes the complement clause just as it probes a DP. Just as in (160), in (162) there are three Agree relations between [*u*Person] and a goal.

(162)



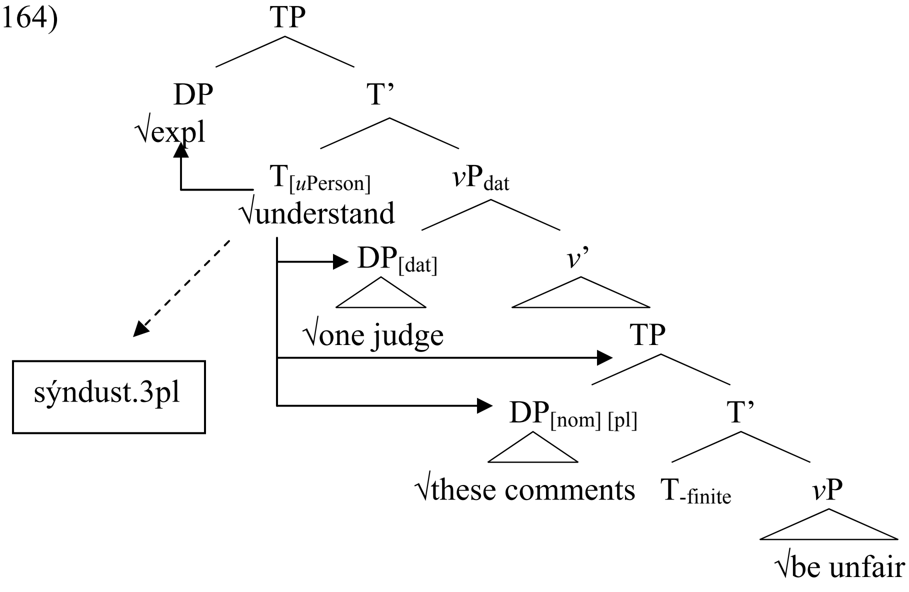
We see that an additional application of Agree results in agreement being further degraded, suggesting that performing three applications of Agree is less preferred than performing two applications of Agree. Of course, [*u*Person] may probe only the Dative or may probe the Dative and the clausal complement, both of which result in the default verbal form.

Evidence that there might be an Agree relation between finite T and a clausal complement comes from languages in which a finite verb can agree with an embedded clause, as illustrated in the Tsez sentence in (163). In (163) the clausal complement is category IV and the matrix verb ‘know’ is marked for category IV agreement.[24]

(163) enir [užā magalu bāc’ rułi] **r**-iyxo
mother [boy bread.III.Abs ate].**IV** **IV**-know
The mother knows [the boy ate the bread]
(Polinsky and Potsdam 2001:584)

As predicted agreement becomes even more marginal in bi-clausal constructions in which there is an expletive in Spec,TP of the matrix clause. This is because there is an additional probe-goal relationship. The derivation in (164) applies only 17.5% of the time.

(164)



The diagrams in (165) - (169) provide a synopsis of the degradation in agreement as a function of increased applications of Multiple Agree. As shown in (165), when the

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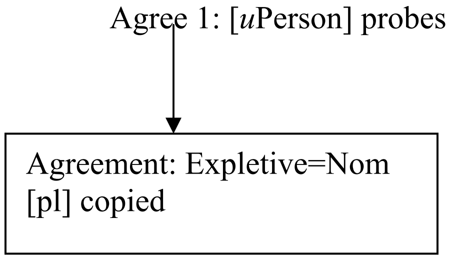
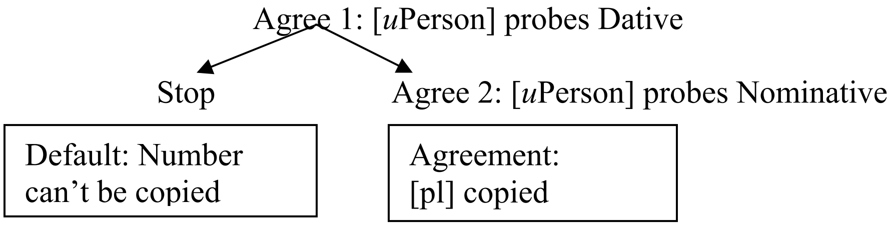
[24] Sigurðsson and Holmber (2008) also propose that the number head probes the infinitival in Icelandic and that this results in default number agreement.

closest DP is Nominative agreement is obligatory, and as shown in 0 - (169), with each potential successive application of Agree, there is the possibility of Agree not applying.

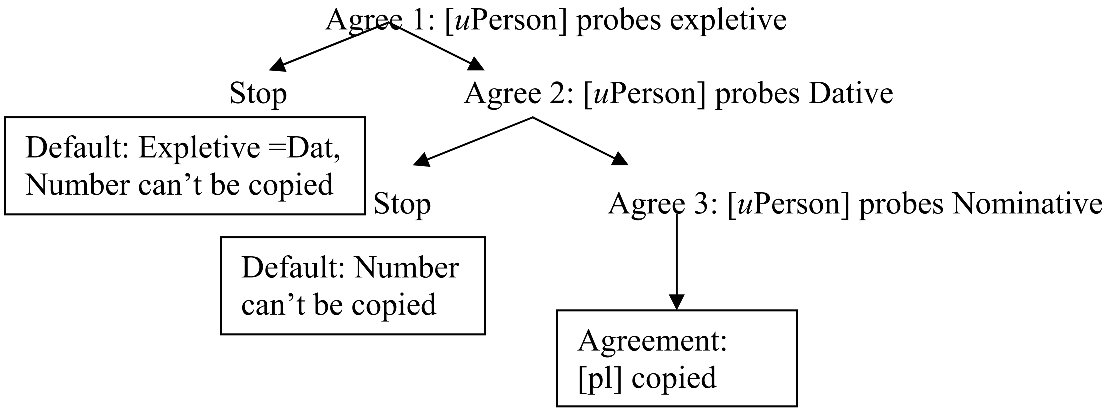
(165) *Expl-Verb-Nominative - 100% agreement*



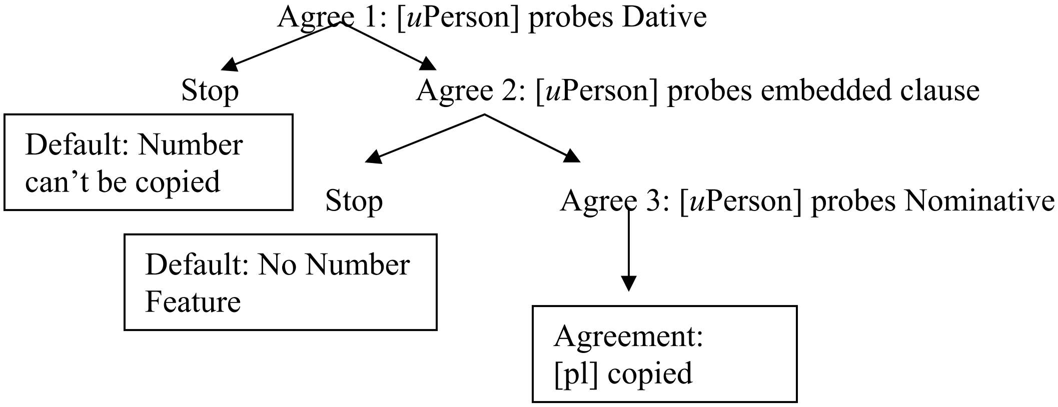
(166) *Dative-verb-Nominative* *46.6% agreement*


Agree 1: [*u*Person] probes Dative
Stop
Agree 2: [*u*Person] probes Nominative
Default: Number
can't be copied
Agreement:
[pl] copied

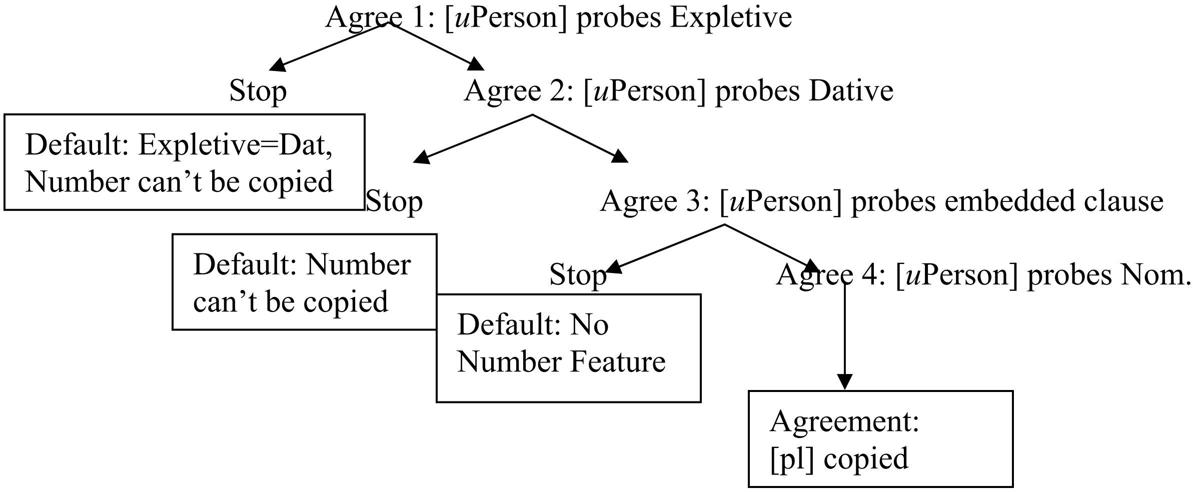
(167) *Expl-verb-Dative-Nominative* *35.8% agreement*


Agree 1: [*u*Person] probes expletive
Stop
Agree 2: [*u*Person] probes Dative
Default: Expletive =Dat,
Number can't be copied
Stop
Agree 3: [*u*Person] probes Nominative
Default: Number
can't be copied
Agreement:
[pl] copied

(168) *Dative-verb- [$_{TP}$ Nominative verb $_{[-finite]}$...] 36% agreement*


Agree 1: [*u*Person] probes Dative
Stop
Agree 2: [*u*Person] probes embedded clause
Default: Number can't be copied
Stop
Agree 3: [*u*Person] probes Nominative
Default: No Number Feature
Agreement: [pl] copied

(169) *Expl-verb-Dative-[$_{TP}$ Nominative verb $_{[-finite]}$...] 17.5% agreement*


Agree 1: [*u*Person] probes Expletive
Stop
Agree 2: [*u*Person] probes Dative
Default: Expletive=Dat, Number can't be copied
Stop
Agree 3: [*u*Person] probes embedded clause
Default: Number can't be copied
Stop
Agree 4: [*u*Person] probes Nom.
Default: No Number Feature
Agreement: [pl] copied

It should be noted that I do not have enough data to make predictions about absolute frequency distributions. My proposal does not predict that there should be 36% agreement in *Dative-verb-Nominative* constructions, for instance. My proposal makes predictions about relative preferences. The more applications of Multiple Agree that are required in order for T to probe the Nominative, the less likely it is that T will probe the Nominative. I discuss what factors might contribute to this degradation in agreement in Chapter 5, Section 5.3. The discussion above sketches the rate of agreement across a population. In the next section, I discuss the possible individual grammars that give rise to this variability.

4.2.2. Individual Grammars

As discussed in Chapter 2, Sigurðsson and Holmberg (2008) account for variability by proposing distinct number agreement dialects. Like the analysis proposed in this dissertation, on Sigurðsson and Holmberg's (2008) account, phi feature agreement is established independently of case. Person and Number heads probe independently of each other, with both heads raising to T. There is optionality in number agreement because the Number head may probe before or after the Dative has moved out of the probing domain of the Number head. The derivation in (170)a results in agreement because the Dative moves prior to Number probing, while the derivation in (170)b results in non-agreement because the Dative intervenes at the point of Number probing.

(170) a. Dat Number ~~Dat~~ Nom *agreement* b. Number Dat Nom *default*

Sigurðsson and Holmberg (2008) propose three agreement dialects. Dialect A speakers allow agreement with Nominative objects and embedded Nominative subjects, as illustrated in (171).

(171) Icelandic – Dialect A
a. *No intervening Dative*
Einum málfræðingi ?líkaði/líkuðu þessar hugmyndir.
one linguist.Dat liked.3sg/3pl these ideas.Nom.pl
b. *Intervening Dative*
Það líkaði/líkuðu einum málfræðingi þessar hugmyndir.
expl liked.3sg/3pl one linguist.Dat these ideas.Nom.pl
(Sigurðsson and Holmberg 2008)

In Dialect B, agreement is allowed only when the Dative subject does not intervenes, as shown in (172).

(172) Icelandic – Dialect B
a. *No intervening Dative*
Einum málfræðingi líkaði/líkuðu þessar hugmyndir.
one linguist.Dat liked.3sg/3pl these ideas.Nom.pl

b. *Intervening Dative*
Það líkaði/*líkuðu einum málfræðingi þessar hugmyndir.
expl liked.3sg/*3pl one linguist.Dat these ideas.Nom.pl
(Sigurðsson and Holmberg 2008)

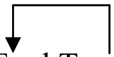
In Dialect C, agreement is questionable when the Dative does not intervene and is not allowed when the Dative does intervene, as shown in (173).

(173) Icelandic – Dialect C
a. *No intervening Dative*
Einum málfræðingi líkaði/??líkuðu þessar hugmyndir.
one linguist.Dat liked.3sg/??3pl these ideas.Nom.pl

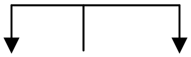
b. *Intervening Dative*
Það líkaði/*líkuðu einum málfræðingi þessar hugmyndir.
expl liked.3sg/*3pl one linguist.Dat these ideas.Nom.pl
(Sigurðsson and Holmberg 2008)

On this account, Dialect A speakers can access both derivations in (170), since agreement is always optional for these speakers. Dialect C speakers can access only the derivation in (170)b, since agreement is not allowed. Dialect B speakers, on the other hand, can access either derivation for constructions as (172)a, but can only access the derivation in (170)b for constructions such as (172)b. Since these speakers can access the derivation in (170)a, it is not immediately clear why these speakers necessarily fail to do so in (172)b. Additionally, Sigurðsson and Holmberg (2008) assume that expletives occupy Spec, CP, and that in expletive constructions, the subject moves to Spec,TP. However, given the evidence presented in section 4.1.3. that expletives occupy Spec,TP, subjects do not raise out of the *v*P. Since the Number probe is external to the *v*P, a Dative would necessarily intervene in these constructions when Number probing occurs. We, therefore, expect agreement in expletive constructions to not be allowed for any speakers, since intervening Datives block agreement. Finally, a timing analysis does not account for the degradation in agreement across types of constructions. It is not clear why a Dative would be more likely to intervene in bi-clausal constructions than in mono-clausal constructions.

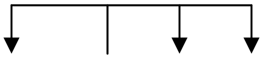
I propose that degradation in agreement across the population comes about from the restrictions on Multiple Agree that the grammars of individual speakers impose. As the number of Multiple Agree relations that are required for [*u*Person] to probe the Nominative increases, the number of speakers who allow the derivation decreases. The derivations and corresponding figures in (174) indicate the percentage and number of speakers who allow that particular derivation. I assume that speakers who selected the agreeing form of the verb at least once for a particular type of construction allow the derivation which would result in agreement. Crucially, it is not the case that speakers who allow a particular derivation which involves Multiple Agree necessarily access that derivation each time they encounter the relevant construction.



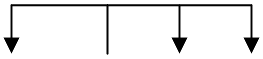
(174) a. [Expl $T_{[u\text{Person}]}$ Nom] 100% (61/61)



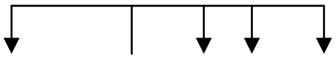
b. [Dat $T_{[u\text{Person}]}$ Nom] 92% (56/61)



c. [Expl $T_{[u\text{Person}]}$ Dat Nom] 56% (34/61)



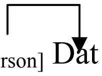
d. [Dat $T_{[u\text{Person}]}$ $[_{TP}$ Nom…]] 49% (30/61)

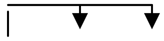


e. [Expl T$_{[\text{uPerson}]}$ Dat [$_{\text{TP}}$ Nom…]]   28% (17/61)

There are several important observations to note about (174). The first is that the derivation in (174)a is obligatory while the derivations in (174)b - (174)e are optional. As discussed earlier, there is no variation in constructions of this type. This derivation is obligatory because [*u*Person] necessarily agrees with the closest DP.

The second observation is that some speakers seem to pattern like those identified as Dialect C by Sigurðsson and Holmberg (2008). Approximately 8% (5 out of 61) of participants preferred non-agreement in all constructions. These speakers never selected the agreeing form of the verb. I take this to indicate that for these speakers [*u*Person] does not enter into Multiple Agree relations.[25] For these speakers, only the derivation in (175)a is allowed. Any derivation in which [*u*Person] probes past the Dative, such as in (175)b, is not allowed.





(175) a. T$_{[u\text{Person}]}$ Dat Nom b. *T$_{[u\text{Person}]}$ Dat Nom

These speakers exhibit the strongest division between case and agreement. Even though the [Nom] feature on T establishes an Agree relation to assign case, it appears that [*u*Person] cannot establish an Agree relation with the same DP.

The third observation is that some speakers seem to pattern like the Dialect A speakers identified by Sigurðsson and Holmberg (2008) in that they freely allow agreement. Approximately 28% (17 out of 61) of participants allow agreement in

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[25] In retrospect, it would have perhaps been more informative to ask speakers to rate the acceptability of constructions exhibiting agreement and those not exhibiting agreement. This would have allowed for clearer conclusions to be drawn about the which derivations speakers actually allow.

expletive constructions with an embedded Nominative subject. This suggests that for these speakers Multiple Agree is allowed to apply freely, though, as will be discussed below, [*u*Person] obeys the same locality conditions as any other probe. Crucially, while the derivation in (174)e is grammatical for 28% of the participants, the derivation is clearly optional. Only two speakers in this category consistently prefer agreement in Expl-Verb-Dat[$_{\mathrm{TP}}$ Nom…] construction.

Finally, just under 12% (7 out of 61) of the participants allowed agreement in *Dative-verb-Nominative* constructions only. I take this to indicate these speakers allow only one application of Multiple Agree. Therefore, the derivation in (176)a is grammatical while the derivation in (176)b is not. In (176)a, [*u*Person] probes the Dative and the Nominative, while in (176)b, [*u*Person] probes the Dative, the complement clause, and the Nominative.

(176) a. T $_{[u\mathrm{Person}]}$ Dat Nom b. *T $_{[u\mathrm{Person}]}$ Dat [$_{\mathrm{TP}}$ Nom…]

Comparing only (176)a and (176)b it appears as if Multiple Agree may apply only clause-internally for these speakers. However, these speakers also do not allow agreement in mono-clausal expletive constructions. Therefore, the derivation in (177) is also ungrammatical.

(177) *Expl T$_{[u\mathrm{Person}]}$ Dat Nom

If these speakers simply did not allow [*u*Person] to probe into the complement clause, we would expect the derivation in (177) to be allowed. This suggests that these speakers do not allow [*u*Person] to probe more than two goals, as opposed to [*u*Person] not being able to probe into the complement clause. The pattern in (176) also suggests that these speakers do not pattern like the speakers that Sigurðsson and Holmberg (2008) identify as Dialect B. Speakers of this dialect are reported to allow agreement in both mono-clausal and bi-clausal constructions, as long as the Dative does not intervene. Just as with speakers who freely allow Multiple Agree, speakers who restrict Multiple Agree to one application do so optionally. No speaker falling into this category consistently selected the agreeing form of the verb.

To summarize, the analysis proposed above accounts for the observation that preverbal Nominative subjects and sole Nominative arguments of the finite verb necessarily agree. [*u*Person] necessarily probes the closest DP and if that DP is Nominative (or has inherited Nominative from its associate), the number feature of that DP is copied onto T. If the closest DP is not Nominative, [*u*Person] optionally continues probing until it reaches a Nominative. However, [*u*Person] may cease probing at any point, with the result being the default morphological form. Crucially, the more Agree relations it takes for [*u*Person] to reach the Nominative, the less likely it is that [*u*Person] will probe the Nominative. In the next section, I elaborate on the relationship between case and agreement and the locality conditions on [*u*Person].

4.3. The Dependency of Agreement on Case

The above analysis predicts that agreement should be allowed in constructions with an embedded Nominative object. As we see in (178), this is the case.

(178) Jóni virðast/virðist [t vera taldir [t líka hestarnir]][26]
J.Dat seemed.pl/seemed.sg be believed.pl like horses.Nom
'Jon seemed to be believed to like horses.'
(Bobaljik 2008, from Schütze 1997:108-109)

The sentence in (178) contains three clauses. The Dative subject *Jóni* has raised from the complement of a passivized ECM construction, and the Nominative object is neither in the same clause as finite T, nor at the edge of the adjacent clause. This construction, therefore, challenges assumptions about locality conditions on agreement. Interestingly, agreement is not allowed sentences such as (179). Unlike in (178), in (179) there is an overt Dative subject in the embedded ECM clause.

(179) Mér $^{?}$*virðast/virðist [Jóni vera taldir [t líka hestarnir]]
Me.Dat seemed.pl/seemed.sg J.Dat be believed.pl like horses.Nom
'I perceive Jon to be believed to like horses.'
(Bobaljik 2008, from Schütze 1997:108-109)

The contrast between (178) and (179) is known as the Schütze-Watanabe effect and has received some attention in the literature. As discussed by both Schütze (1997) and Watanabe (1993), agreement can occur across a Dative trace that is in the lower clause, as in (178), but agreement cannot occur across an overt Dative that is in the lower clause, as in (179). The argument could be made that agreement is not allowed in (179) because case is not assigned by finite T. On a restructuring account, such as the one proposed by Bobaljik (2008) for sentences such as (178), finite T and the Nominative are in the same clause, and case assignment would be akin to that in standard monoclausal constructions with Nominative objects. The lack of functional structure in restructuring

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[26] It should be noted that while Schütze (1997) indicates that the non-agreeing form of the verb in (178) is marginal, consultation with native speakers confirms that the non-agreeing form is perfectly acceptable and perhaps preferred, though the sentence is quite odd.

complements would amount to the verb and the Nominative being in the same domain in (178), as there is no actual clause boundary separating them. This proposal is consistent with the general claim that restructuring allows long distance agreement (see Bhatt 2005, Bobaljik and Wurmbrand 2005, Wurmbrand 2001 for discussion).

In (179), on the other hand, finite T and the Nominative are not in the same clause. Unlike in (178), in (179) there is an overt subject, *Jóni*, in the lower clause. This suggests that the embedded clause contains the requisite functional structure which would host a subject. This functional structure means that the embedded clause is a full clausal complement, and not a restructuring complement. Therefore, case assignment by finite T is blocked.

If an agreement relationship is parasitic on a case relationship, then the fact that finite T does not assign case in (179) would preclude an agreement relationship. However, there is evidence from Hindi-Urdu which suggests that agreement is not strictly parasitic on a case relationship. As discussed in Chapter 2, in his analysis of long distance agreement in Hindi-Urdu, Bhatt (2005) argues for a division between case and agreement. In Hindi-Urdu, Nominative and Accusative are not morphologically marked and matrix verbs agree with the highest unmarked argument. In (180) the matrix verb agrees with the embedded object *tehnii* 'branch'.

(180) Hindi-Urdu: Long-Distance Agreement
Shahrukh-ne [tehnii kaat -nii] chaah-ii thii
Shahrukh-Erg branch.Acc.Fem. cut-Inf.Fem. want-Pfv.Fem. be.Pst.Fem.Sg
'Shahrukh had wanted to cut the branch.' (Bhatt 2005)

Bhatt (2005) argues that the embedded object receives Accusative case in the lower clause. Yet the object is able to agree with the matrix verb. The Hindi-Urdu facts, therefore, suggest that agreement is not strictly parasitic on a case relationship. Rather, agreement is parasitic on the <u>output</u> of a case relationship. In (180), the requisite condition for triggering agreement is the Accusative case value, not a relationship with finite T.[27]

Given that a restructuring analysis seems plausible to account for the Schütze-Watanabe effect, I propose that [*u*Person] obeys the same locality conditions as any other probe. [*u*Person] can probe within its clause or to the edge of the next clause. Because the sentence in (178) is restructuring, [*u*Person] and the Nominative are, in effect, within the same clause. Therefore, [*u*Person] can probe the Nominative. Because the sentence in (179) is not restructuring,[*u*Person] cannot probe the Nominative. [*u*Person] and the Nominative are not in the same clause and the Nominative is not at the edge of the lower clause. [*u*Person], therefore, obeys the same locality conditions that [Nom] does, as discussed in Section 4.1.5.

4.4. Alternative Accounts

4.4.1. Covert Movement – Bobaljik (2008)

In addition to the restructuring proposal that Bobaljik (2008) suggests to explain the contrast between (178) and (179), Bobaljik (2008) also suggests that the Nominative may covertly move in (178) to satisfy locality conditions on agreement. Movement in (179), on the other hand, is blocked by the Dative. As discussed in Chapter 2, Bobaljik (2008) argues that agreement is post-syntactic and proposes the agreement principle stated in (181).

(181) The finite verb agrees with the highest accessible NP in its domain.
(Bobaljik 2008)

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[27] Agreement with Accusative objects is only allowed in LDA.

The statement in (181) imposes post-syntactic locality conditions on agreement. For Bobaljik (2008), “accessibility” is determined by morphological case. Therefore, in Icelandic, Nominatives are accessible while Datives are not. A domain is a clause or phase and the edge of the next lower clause or phase. Bobaljik (2008) proposes that the Nominative in (178) covertly moves into the higher clause, while the lower Dative in (179) blocks the Nominative from covertly moving, as schematized in (182).

(182) Agreement in Icelandic
c. * V/AUX$_{PL}$ … [DAT…NOM$_{PL}$]

d. ^{OK} DAT V/AUX$_{PL}$ … [t$_{DAT}$…NOM$_{PL}$]
(Bobaljik 2008)

This covert movement proposal is based on facts about the availability of movement in *seem* constructions. *Seem* in Icelandic forces raising when there is no matrix experiencer, as in (183)a. When there is a matrix experiencer, an embedded Nominative cannot move over it. In (183)b/c, the embedded Nominative cannot move over the matrix Dative. The Nominative must remain in the lower clause, as in (183)d.

(183) a. Hafði Ólafur virst [t vera gáfaður]?
has Olaf.Nom seemed to.be intelligent
‘Did Olaf seem intelligent?’

b. * Hafði Ólafur þeim virst [t vera gáfaður]?
had Olaf.Nom them.Dat seemed to.be intelligent
‘Did it seem to them that Olaf was intelligent?’

c. * Hafði Ólafur virst þeim [t vera gáfaður]?
had Olaf.Nom seemed them.Dat to.be intelligent

d. Hafði þeim virst [Ólafur vera gáfaður]?
had them.Dat seemed Olaf.Nom to.be intelligent
(Bobaljik 2008)

Holmberg and Hróarsdóttir (2003) observe that when a matrix experiencer moves to Spec,CP – i.e., when it is a WH-Dative – an embedded Nominative can move over the WH trace into the higher clause, as shown in (184).

(184) a. Hverjum hefur Ólafur virst t_{wh} [t_{obj} vera gáfaður]?
who.Dat has Olaf.Nom seemed to.be intelligent
'Who has found Olaf intelligent?'

b. Hverjum hafa strákarnir virst t_{wh} [t_{obj} vera gáfaðir]?
who.Dat have.pl boys-the.Nom seemed to.be intelligent
'Who has found the boys intelligent?'
(Bobaljik 2008, from Holmberg and Hróarsdóttir 2003)

Bobaljik's (2008) argument is that since a Nominative can overtly move over a trace in (184), then it is reasonable to assume that a Nominative can covertly move over a trace in (178). However, we do not have evidence that the Nominative moves into the higher clause. We would expect there to be scope facts which show that the Nominative in (178) is interpreted higher than the embedded verb 'believe', but Bobaljik (2008) does not provide evidence of this prediction being confirmed.

The larger problem for this proposal is that it is not clear what would motivate the movement of the Nominative. The crux of Bobaljik's (2008) proposal is that agreement does not feed syntactic operations. It would have to be that the Nominative moves at PF, but the only motivation for the movement is to satisfy a locality condition on agreement, not to satisfy a phonological requirement, as the Nominative is pronounced in the lower clause. On a model which allows for post-syntactic movement operations, such as Distributed Morphology, PF movement is strictly local. For instance, in English, verbs do not move to T, but verbs display tense morphology. On the DM approach, the tense morpheme lowers to the verb. However, this lowering cannot apply if the *v*P has been fronted to a position higher than T. The sentence in (185)a is ungrammatical because the past tense affix has lowered to the verb *played*, but the entire *v*P has moved higher than T. This movement in overt syntax forces the sentence in (185)b, in which the tense is reflected via *do*-support.

(185) a. *Mary said she would quietly play her trumpet, and [$_{vP}$ quietly play-ed$_2$ her trumpet]$_1$ she t$_2$ t$_1$.
b. Mary said she would quietly play her trumpet, and [$_{vP}$ quietly play her trumpet]$_1$ she did t$_1$.
(Embick and Noyer 2001:567)

Operations of the type in (185)a are called lowering and apply before a feature bundle has been mapped to a vocabulary item. Operations that apply after Vocabulary Insertion are called local dislocation and affect linear adjacency. In particular, local dislocation is argued to operate on a variety of clitics in cases in which clitic placement does not appear to be the result of operations which apply overtly in syntax. For instance, there are phonological restrictions on the use of the English comparative and superlative morphemes, -*er* and *–est*, with both only attaching to mono-syllabic adjectives, as shown in (186).

(186) a. John is smart-er than Bill.
b. John is mo-re intelligent than Bill.
c. *John is intelligent-er than Bill.
d. ?* John is mo-re smart than Bill. (Embick and Noyer 2001:564)

Since the phonological shape of the comparative or superlative depends on the phonological shape of the adjective, the adjective must be inserted into the structure first. Consequently, whether the comparative or superlative is realized to the left or right of the adjective depends on the shape of the adjective. Assuming a structure in which the comparative or superlative feature dominates the adjective (Abney 1987), this means that the *–er/-est* form must lower to the adjective or the adjective must raise to the *–er/-est* form.

On Bobaljik's (2008) proposal, the Nominative would be moving at PF strictly for the purpose of being close enough to the verb to trigger agreement. Given that there is no phonological requirement for this movement, it seems that this movement would occur in the syntax, but this is precisely what Bobaljik (2008) argues against.

The restructuring account seems like a more plausible approach, and it might also explain variation in constructions such as (178), in which the verb optionally agrees with the embedded Nominative object. Bobaljik (2008) does not discuss variation, but it might be that speakers who do not allow agreement in (178) do not allow restructuring in this context, while speakers who do allow agreement in (178) allow restructuring in this context. If this is the case, then Icelandic differs from German. Wurmbrand (2001) and Bobaljik and Wurmbrand (2005) argue that restructuring is obligatory with raising verbs. While it may be that Icelandic and German differ with respect to obligatory restructuring with raising verbs, the restructuring analysis does not account for the optional agreement in monoclausal constructions with Nominative objects. The possibility of an optional domain boundary between the verb and the Nominative object does not arise in monoclauses.

My proposal improves upon Bobaljik's (2008) proposal in that my proposal accounts for optionality in both monoclausal and bi-clausal constructions and relates the agreement optionality to the optionality of Multiple Agree. Successive applications of Multiple Agree decrease the rate of agreement. There is no need to posit post-syntactic movement operations in order to satisfy locality conditions on agreement. The standard syntactic locality conditions on agreement apply. Agreement is simply less likely to occur with a Nominative that is not in the same clause as the finite verb, since [*u*Person] must probe other items in order to probe the Nominative.

4.4.2. Defective Intervention

Another way one might think about the agreement pattern in Dative-Nominative constructions is to consider the Dative a defective intervener, as argued by Holmberg and Hróarsdóttir (2003). As discussed in Chapter 2, Chomsky's (2000) definition of defective intervention, repeated in (187), is meant to account for instances in which a DP that is seemingly ineligible as a goal for a particular probe interferes with the probe's ability to enter into an Agree relation with an eligible DP.

(187) Defective Intervention Constraint

$$\begin{tikzcd}\alpha \arrow[rr, bend right] & > \beta > & \gamma\end{tikzcd}$$

(*AGREE (α,γ), α is a probe and β is a matching goal, and β is inactive due to a prior Agree with some other probe.)

(Chomsky 2000:123)

On accounts in which case and agreement are established prior to the subject moving from its *v*P-internal merge site, then we have the string represented in (187); α equals T, β equals the Dative subject, and γ equals the Nominative object. On a defective intervention account, the presence of the Dative subject is sufficient to block an Agree relation between T and the Nominative. The Dative DP is presumably inactive because it has entered into a prior Agree relation in which it received Dative case. While the Dative is not a proper goal for T, it manages to prevent T from probing the Nominative.

The concept of defective intervention has been challenged in the literature (see Bobaljik 2008 and Broekhuis 2007 for discussion), in large part because it is not clear what a defective intervener is. In particular, it is not clear how Nominative would be assigned to the object. If the intervening Dative is indeed a defective intervener, it should block the case relationship between T and the object. That case is not blocked suggests that the Dative is not a defective intervener for the purposes of case.[28] Even if defective intervention could explain how agreement is blocked, then this type of account actually suggests that case and agreement are established via different operations, since case is not blocked. Moreover, this type of analysis encounters particular problems in dealing with the Icelandic data. The first problem is that it is not clear how the optionality in agreement would be derived. It would have to be that the Dative is only sometimes a defective intervener and other times it is transparent for agreement.

As discussed in Chapter 2, Section 2.2.4, Hiraiwa's (2001) Multiple Agree proposal is formulated to avoid a defective intervention effect. On Hiraiwa's (2001) proposal, a head necessarily probes more than one goal simultaneously. If one assumes a principle of defective intervention, as soon as there an Agree relation between a probe and goal, the goal should block relations between the probe and subsequent goals. However, no defective intervention effect arises if a probe establishes a relation with both goals simultaneously.

Given that [*u*Person] can probe past an intervening Dative, I propose that Datives in Icelandic are not defective interveners. Datives do not actually block agreement. What appears to be defective intervention is the result of conditions on Multiple Agree. Since there is no need to avoid a defective intervention effect, the analysis proposed in this dissertation suggests that Multiple Agree applies iteratively, and not simultaneously.

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[28] In Faroese, there are constructions with Dative subjects and Accusative objects. This suggests that the Dative blocks a case relationship between T and the object.

4.5. Can Datives Value Features on T?

Before concluding this chapter, one more observation bears discussion. On the analysis proposed in this chapter and the previous one, Datives do not value the features on T. Since verbs do not agree with Datives, it is commonly assumed that the features of Datives are not visible T (see Chapter 3, Section 3.2.5 for discussion). However, Holmberg and Hróarsdóttir (2003) state that agreement is not allowed in bi-clausal expletive constructions with an embedded Nominative subject and suggest that the number feature of the matrix Dative subject matters. In (188)a and (188)b there is no expletive and agreement is allowed both when the Dative is singular, as in (188)a and when the Dative is plural, as in (188)b. By contrast, (188)c is an expletive construction with a singular Dative matrix subject, and agreement is not allowed. The sentence in (188)d is also an expletive construction. Here the matrix Dative subject is plural and agreement is marginal.

(188) a. No expletive single Dat – both OK
Manninum virðist/ virðast hestarnir vera seinir
man.the.Dat.sg seem.sg/seem.pl horses.the.Nom be slow.Nom
'The man finds the horses slow.'

b. No expletive – plural Dat –both OK
Einhverjum stúdentum finnst/finnast tölvurnar ljótar
some students.Dat.pl find.sg/find.pl computers.the.Nom.pl ugly.Nom
'Some student finds the computers ugly'

c. Expletive single Dat – no agreement
Það virðist/ *virðast einhverjum manni hestarnir vera seinir
it-expl seem.sg/*seem.pl some man.Dat.sg horses.the.Nom be slow.Nom
'A man finds the horses slow.'

d. Expletive – plural Dat – agreement marginal
Það finnst/?finnast mörgum stúdentum tölvurnar ljótar
it-expl find.sg/?find.pl many students.Dat.pl computers.the.Nom.pl ugly.Nom
'Many students find the computers ugly'
(Holmberg and Hróarsdóttir 2003)

Holmberg and Hróarsdóttir (2003) adopt a defective intervention analysis to explain the contrast between (188)a/b and (188)c/d, but the crucial observation is that there seems to be a contrast between (188)c and (188)d. Agreement with a Nominative seems to be improve if the Dative is plural. Since my survey did not contain items designed to test the effect of the number of the Dative on agreement, I cannot speculate about how robust this effect might be. However, it might be that the features of a Dative are not completely invisible. Perhaps when [*u*Person] probes the Dative, there is a record of sorts of the Dative's number feature and if this feature matches the number feature of the Nominative, then agreement is more likely. Under my account, the Dative participates in the Multiple Agree relation. It may, therefore, be plausible that the features of the Dative are relevant.

4.6. Conclusion

In this chapter, I have proposed an analysis which accounts for the rate of agreement in a variety of Icelandic constructions. Taken together with the facts discussed in Chapter 3, Icelandic provides a window into some fundamental issues regarding the nature of core syntactic operations. In particular, the case and agreement patterns in Icelandic provide substantial evidence that case and agreement are established via distinct operations. Nominative case is obligatory in constructions in which agreement is not. Additionally, a Nominative may be in a case relationship with one head and an agreement relationship with another head. That the rate of agreement across constructions varies systematically provides strong evidence that Multiple Agree is an optional operation.

In Chapter 5, I return to some of theoretical issues raised throughout this dissertation. I weigh in on the debate in the recent case and agreement literature about whether case and/or agreement take place in the narrow syntax or post-syntactically. Additionally, I motivate and discuss the implications of various aspects of the proposal made in Chapters 3 and 4.

CHAPTER 5

MOTIVATING THE ACCOUNT

5.0 Introduction

In this chapter, I return to many of the theoretical issues raised in this dissertation and motivate particular aspects of the analysis proposed in Chapters 3 and 4. In Section 5.1, I provide a comprehensive overview of the analysis presented in Chapters 3 and 4. In Section 5.2, I address whether case and agreement features are determined in the syntax or post-syntactically. I argue that situating case and/or agreement outside of syntax requires applying operations that are essentially syntactic post-syntactically. Section 5.3 addresses the issue of how the degradation in agreement reported in Chapter 4 is derived. I argue that these data suggest that speakers are not biased toward agreement in constructions with Nominative objects, and post-verbal Nominative subjects. This is in contrast to previous literature (e.g. Anagnostopoulou 2005, Schütze 1997, Sigurðsson 1996), which suggests that non-agreement in these constructions is marginal. Section 5.4 addresses the relationship between case and agreement. Here I outline the consequences of allowing [Nom] and [*u*Person] to probe independently. Along the same line, Section 5.5 addresses the issue of Nominative case assignment in non-finite constructions. I argue that case is assigned by finite T in the types of constructions explored in this dissertation, even though non-finite T assigns Nominative in other types of non-finite constructions in Icelandic. Section 5.6. addresses discusses the ramifications of allowing probing to occur under c-command and in a Spec-head configuration, as suggested in Chapters 3 and 4.

5.1. The System in its Entirety

There are six crucial components of the analysis proposed in Chapters 3 and 4. First, [Nom] and [*u*Person] are independent probes on T. Second, a Nominative DP bearing [1] or [2] must be in an Agree relation with [*u*Person]. Third, Agree relations send instructions to the morphology. Fourth, the first application of Agree is obligatory. Fifth, Multiple Agree is optional. Sixth, increased applications of Multiple Agree lead to a degradation in agreement.

The proposal that [Nom] and [*u*Person] are independent probes allows us to account for the fact that a DP can be a case relationship with T, but not be in an agreement relationship with T. As we have seen throughout this dissertation, not all Nominatives trigger agreement on the verb.

I assume that the values for person are [1] and [2] and I argue that a DP which is valued to Nominative and which bears a person value must be in an Agree relation with [*u*Person]. The requirements for a valued person feature on a DP are the same as the requirements for an unvalued case feature on a DP. Both must be in an Agree relation with the respective probes on T. An unchecked person value results in the derivation crashing, just as an unvalued case feature on a DP results in a crash. The constructions in (189) are, therefore, ungrammatical.

(189) a. $^{*}\overset{***}{\overbrace{\mathrm{T}_{[u\text{Person}]}\ \text{Dat}\ \text{Nom}}}_{[\text{person=1/2}]}$ b. $^{*}\overset{***}{\overbrace{\mathrm{T}_{[\text{case=Nom}]}\ \text{Dat}\ \text{Nom}}}_{[\text{uCase}]}$

If a DP which is valued to Nominative does not bear a person value, it is not required to be in an Agree relation with [*u*Person]. Therefore, the derivation in (190) is grammatical.

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(190) $\text{T}_{[u\text{Person}]}$ Dat Nom

The contrast between (189)a and (190) allows us to account for the fact that constructions with first and second person Nominative objects are generally ungrammatical, while constructions with third person Nominative objects are grammatical, irrespective of whether these DPs trigger agreement.

This proposal diverges from previous accounts in that the unvalued Φ bundle on T does not include an unvalued number feature. This is not to say that T cannot obtain a number value. I propose that if [*u*Person] is in an Agree relation with a DP, and the DP has a number value, the number value of the DP is copied onto T. I assume that the value for number is [pl] and that when [*u*Person] probes a DP with a Nominative case value, if the DP bears [pl], then [pl] is copied onto T. If that DP also bears a value for person, then [*u*Person] is valued, as shown in (191).

(191) a. $\text{T}_{[u\text{Person}]}$ Dat $\text{Nom}_{\substack{[1]/[2] \\ [\text{pl}]}}$ b. $\text{T}_{\substack{[\text{Person}=1/2] \\ [\text{pl}]}}$ Dat $\text{Nom}_{\substack{[1]/[2] \\ [\text{pl}]}}$

If [*u*Person] probes a Nominative that does not bear a person value, i.e., a third person Nominative, [*u*Person] is realized as default. However, if that DP has a number value, then [pl] is copied onto T, as shown in (192).

(192) a. $\text{T}_{[u\text{Person}]}$ Dat $\text{Nom}_{[\text{pl}]}$ b. $\text{T}_{\substack{[\text{Person=Default}] \\ [\text{pl}]}}$ Dat $\text{Nom}_{[\text{pll}]}$

I proposed that the special relationship between Nominative and agreement is captured by the statement in (193), which encodes the fact that verbs can agree only with Nominative DPs.

(193) Unless case=Nom, a DP cannot contribute values for person or number.

The difference between the grammatical derivation in (191) and the ungrammatical derivation in (189)a is that Multiple Agree applies in (191), while Multiple Agree does not apply in (189)a. I argued that Multiple Agree is an inherently optional operation, while Agree is an inherently obligatory operation. (189)a is ungrammatical because [*u*Person] probes only the closest DP, which is the Dative, leaving the object with an unchecked person value, as shown in (194)a. In (191), on the other hand, [*u*Person] probes both the Dative and the Nominative, as shown in (194)b.

(194) a. *T$_{[u\text{Person}]}$ Dat Nom$_{\substack{[\text{person}=1/2]\\ [\text{pl}]}}$ b. T$_{[u\text{Person}]}$ Dat Nom$_{\substack{[\text{person}=1/2]\\ [\text{pl}]}}$

Because Datives cannot value person or number features on T, when [*u*Person] probes a Dative, [*u*Person] is spelled out as default. However, because Nominatives do value features on T, when [*u*Person] probes both the Nominative and the Dative, [uPerson] is spelled out both as default and as the values contributed by the Nominative. I propose that Agree relations send instructions to the morphology, as expressed in (195).

(195) **The Agree-Morphology Mapping Principle**

a. For every Agree relation between an unvalued feature [*u*α] and a valued feature [*v*α], let [*u*α] be valued to [*v*α].
b. Let [*v*α] be spelled out as [*v*α].
c. If an Agree relation between [*u*α] and [*v*α] fails, let [*u*α] be spelled out as default.

When [*u*Person] probes the Dative, (195)c applies and when [*u*Person] probes the Nominative, (195)a/b apply. Unless there is a morphological form which realizes the default person value and the person (and number) values of the Nominative, the derivation is ungrammatical at the point of morphological spell-out.

Unlike constructions with [1]/[2] Nominative objects, constructions with [1]/[2] embedded Nominative subjects are always grammatical, even though these DPs usually do not trigger agreement on the finite verb. I propose that [*u*Person] on non-finite T checks the person value of the embedded subject, thereby licensing the DP. Because there is no Dative intervening between the embedded T and the subject, [*u*Person] on the embedded T will necessarily probe the Nominative, as shown in (196).

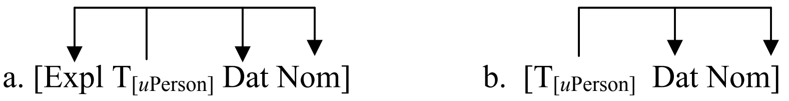
(196) $\mathrm{T}_{[\text{-finite}]\ [u\text{Person}]}$ $\mathrm{Nom}_{[1]/[2]}$

Because Multiple Agree is optional, [*u*Person] on finite T may also probe the embedded Nominative, as shown in (197).

(197) [$\mathrm{T}_{[u\text{Person}]}$ Dat [$\mathrm{T}_{[\text{-finite}]}$ $\mathrm{Nom}_{[1]/[2]}$]

As in mono-clausal constructions unless there is a morphological form which realizes the default value contributed by the matrix Dative and the values contributed by the Nominative, this derivation is ungrammatical at the point of morphological spell-out .

Given the proposal that Multiple Agree is optional, it follows that there should be optionality in agreement with third person Nominative subjects and third person embedded Nominative objects. As shown in (192), when [*u*Person] probes a Nominative that does not bear a person value, if that DP bears a number value, the number value is copied onto T. I derive the fact that the rate of agreement varies across constructions by arguing that increased applications of Multiple Agree result in decreased agreement. The more Agree relations that must be established in order for [*u*Person] to probe the Nominative, the less likely it is that [*u*Person] will actually probe the Nominative. Therefore, we can account for the fact that the rate of agreement in constructions such as (198)a is lower than the rate of agreement in constructions such as (198)b. (198)a involves three applications of Agree, while (198)b involves two applications of Agree.



(198) a. [Expl $T_{[u\text{Person}]}$ Dat Nom] b. [$T_{[u\text{Person}]}$ Dat Nom]

Now that we have a comprehensive picture of the proposal, I devote the rest of this chapter to motivating various aspects of the analysis.

5.2. Why are case and agreement in the syntax?

As discussed throughout this dissertation, post-syntactic operations are those which are argued to occur within the morphophonological component of the grammar. For present purposes, post-syntactic does not refer to operations which might occur within the interpretive component of the grammar, such as LF movement. Chapter 2 of this dissertation provides an overview of the recent debate in the literature regarding whether case and agreement are components of core syntax. In this chapter I weigh in on this debate. The motivations for situating case and agreement outside of syntax are well-founded. However, in order for such a proposal to account for Icelandic agreement, what amount to syntactic operations apply post-syntactically. This is not to say that post-syntactic operations do not play a significant role in determining the morphological form of lexical items. As proposed in this dissertation, the mapping of roots and feature bundles to vocabulary items occurs post-syntactically. The values for case and agreement features, are, nonetheless determined in the syntax. Crucially, the mapping of roots and feature bundles to vocabulary items does not require that operations which apply in the syntax also apply post-syntactically.

In the traditional GB literature, there is a distinction between abstract case and morphological case. Abstract case was argued to have several core functions in the syntax, and it may or may not have a morphological reflex. In particular, abstract case was argued to drive movement, determine the distribution of PRO, and correlate with grammatical function. An examination of the case facts in a variety of languages, including Icelandic, suggests that case does not necessarily play such a central role in syntax. As discussed in Chapter 2, case can be assigned under c-command; non-finite T can assign Nominative; and non-subjects can bear Nominative case. This has led some scholars (e.g. Marantz 1991, McFadden 2004,2006) to propose that abstract case is unnecessary and that there is only morphological case, with morphological case being determined post-syntactically.

The arguments for situating agreement in the post-syntactic component of the grammar follow, in part, from the arguments for placing case in the post-syntactic component. Agreement "tracks" case, in that verbs may agree only with DPs bearing certain case values (e.g., Nominative in Icelandic). As discussed in Chapter 2, Bobaljik's (2008) proposal that agreement is post-syntactic is based on this observation. Bobaljik's (2008) argument, then, is that if case is post-syntactic and agreement is dependent on case, then agreement must also be post-syntactic.

If case and agreement are determined in the morphophonological component of the grammar, then these features are not accessible to the semantics interface. Since case and agreement features are uninterpretable, situating them outside of syntax does not cause a crash at the semantics interface. Moreover, determining case and agreement post-syntactically could, arguably, result in a more efficient derivation. As proposed in Chomsky (2000), uninterpretable features are deleted at the semantics interface. The motivation for this is that each interface can only be sent information that it can interpret. Only information that can be mapped to meaning can be interpreted by the semantics interface, and only information that can be mapped to sound can be interpreted by the phonological interface.

Case is arguably uninterpretable because there is not a one-to-one correspondence between case and grammatical function. As we have seen, Nominatives in Icelandic are not necessarily agents. While phi features are interpretable on DPs, they are uninterpretable on verbs. A DP bearing a number feature [pl] has an interpretation distinct from a DP bearing no number feature, for instance. Conversely, phi features on verbs do not contribute to the semantic content of the verb. As noted by Sigurðsson (2008), a sentence such as *There were some professors seen dancing in the woods* has the same interpretation as *There was some professors seen dancing in the woods*.[29] The form *were* does not contribute to the semantic content of the proposition in a way that is distinct from the form *was*.

Since uninterpretable features must be deleted, the question arises as to why such features should be part of the syntactic computation. Sigurðsson's (2008) argument for

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[29] See Pesetsky and Torrego (2004) for a more thorough discussion of the difference between interpretable and uninterpretable features.

situating case and agreement at PF is based largely on a core assumption of the Minimalist Program (Chomsky 1995), namely that linguistic structures and operations are maximally minimal. The process of deleting features, therefore, seems incompatible with a "minimal" system. Sigurðsson (2008) proposes that only features which are interpreted by both the semantics interface and the phonological interface are present in the syntax and that features which are interpreted by only one interface are added post-syntactically via a process of feature copying. On Sigurðsson's (2008) proposal, neither case nor agreement features are determined in the syntax, with each being "copied" from one item onto another item at the PF interface.

Sigurðsson's (2008) argument is that removing case and agreement from the syntax removes the need for an operation which would delete these features. On Sigurðsson's (2008) approach, elements which receive an interpretation at both interfaces are present in the narrow syntax. On Sigurðsson's (2008) proposal, there is no need to delete uninterpretable features at the semantics interface, since these features are copied onto the relevant items at the phonetics interface. The inherent assumption here is that copying features is a more minimal process than is deleting features. However, it is not apparently evident that copying features is more computationally efficient.

The proposal that features can be copied post-syntactically is consistent with the Distributed Morphology approach. On the DM model, features can be copied or introduced at PF, as stated in (199).

(199) a. Feature copying. A feature that is present on a node X in the narrow syntax is copied into another node Y at PF
b. Feature introduction. A feature that is not present in the narrow syntax is added at PF.

(Embick and Noyer 2007, example 27)

Analyses which situate case and agreement outside of syntax, as well as analyses which situate case and agreement within syntax have in common the fact that the syntactic structure is accessible to whatever operations occur post-syntactically. As discussed in Chapter 2, McFadden's (2004, 2006) proposal that case is determined post-syntactically is cast in a DM approach. On this proposal, a DP that is merged in Spec,*v*P is spelled out as Nominative and a DP is spelled out as Accusative only if it is c-commanded by a DP that is merged in Spec,*v*P. Likewise, on Bobaljik's (2008) proposal, the post-syntactic process for determining agreement features references the syntactic structure. As discussed in Chapter 2, Bobaljik (2008) proposes the agreement statement in (200).

(200) The finite verb agrees with the highest accessible NP in its domain.
(Bobaljik 2008)

For Bobaljik (2008), "highest" refers to the structurally highest, "accessible" refers to bearing the appropriate case value, and "domain" refers to being in the same clause or at the edge of the adjacent clause.

Determining case and agreement post-syntactically requires not only that the syntactic structure is visible, but also that the operations for determining case and agreement strongly resemble syntactic operations, as noted by Sigurðsson's (2008) statement in (201).

(201) "…these abstract PF agreement processes operate in a 'syntactic manner'…applying feature matching, observing minimality, and showing intervention effects…These circumstances suggest that agreement morphology is able to 'see' syntax, even though it takes place after transfer and thus operates with elements that are out of sight for the semantic interface, such as formal gender, number, and case values." (Sigurðsson 2008:28)

Given the survey results reported in Chapter 4, it seems apparent that agreement in Icelandic is sensitive to minimality and may display intervention effects. There would, therefore, have to be operations at PF which have the same properties as Agree and Multiple Agree. The features of the Nominative would necessarily be copied when it was the closest DP, and the features of the Nominative would optionally be copied when it is not the closest DP. Moreover, we would need a mechanism to derive the degradation in agreement, so it would have to be the case that more feature-copying operations amounted to decreased agreement. While a post-syntactic account of agreement has the potential benefit of removing from the syntax items that do not contribute semantic content to the proposition, doing so simply shifts the operations that would occur in overt syntax to the syntax-PF interface. If agreement is, arguably, a syntactic operation, then case must be also. Since agreement is dependent on case, it could not be that case is determined post-syntactically, while agreement is determined syntactically.

Sigurðsson's (2008) proposal builds on the one outlined in Sigurðsson (2006) in which there is a distinction made between the syntactic operation Agree and morphological agreement. I also make this distinction. However, on my proposal, there is no need for a post-syntactic feature copying process. While actual morphophonological forms are not determined in the syntax, the process by which these forms are determined necessarily references the syntax.[30] As we have seen in Chapters 3 and 4 of this dissertation, on the DM model the terminal nodes of syntactic derivations contain roots which encode the core lexical semantic information of a lexeme and the features that the

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[30] This approach is in contrast to a Lexicalist approach (see Aronoff 1994 for discussion) in which word formation occurs in the lexicon and is divorced from syntactic structures and operations.

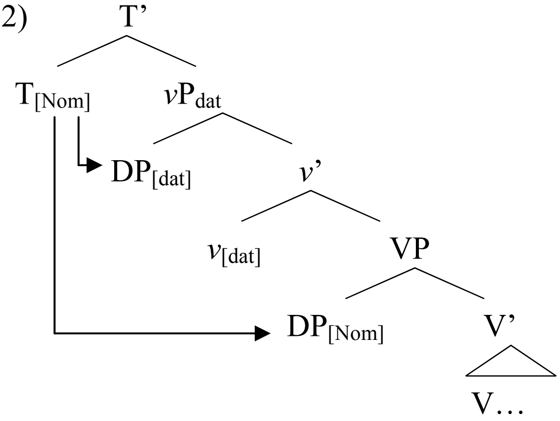
root is either merged with or acquires throughout the course of the derivation. Roots are merged into derivations in the syntax and the operations by which features are checked or valued also occur in the syntax. In the post-syntactic morphological component of the grammar, each root and its concomitant feature bundle is mapped to a lexical item which expresses as many of the relevant features as possible. Post-syntactic processes, therefore, utilize the information that was established in the syntax to determine morphological form. For instance, the morphological reflection of an Agree relation between [*u*Person] and DP is the verb displaying the phi features of that DP. On the other hand, the morphological reflection of the absence of an Agree relation between [*u*Person] and a DP is the verb appearing in the default form.

5.3. Why should there be degradation in agreement?

Related to the issue of where in the grammar agreement occurs is the issue of just what motivates the degradation in agreement reported in Chapter 4. Non-agreement with Nominative objects is (e.g. Anagnostopoulou 2005, Schütze 1997, Sigurðsson 1996) is often characterized as marginal. Readers familiar with the Icelandic agreement literature may, therefore, be surprised by the survey findings reported in Chapter 4. There are many reasons why this might be the case. For instance, it could be that younger speakers are not as prone to agreement as older speakers are. All of the speakers who participated in my survey are university students. There is presently a shift in the case values assigned to some non-Nominative subjects. Younger speakers tend to use Dative subjects with verbs which have historically required Accusative subjects. It is possible that there is also a shift in terms of agreement.

It may also be that there is a processing cost associated with establishing longer distance agreement dependencies. There is necessarily a relationship between T and a DP that could possibly trigger agreement, since that DP must be Nominative. It could be that agreement involves searching syntactic dependencies that have already been established in order to find an appropriate candidate. This would mean that [*u*Person] accesses all of the Agree relations between [Nom] and a goal in an effort to find the goal which actually bears a [Nom] value. Since a probe must establish a relation with all intervening goals in order to enter into a relation with the target goal, [Nom] necessarily probes items which do not have an unvalued case feature. Therefore, in (202), [Nom] is in a relation with the Dative, as well as the Nominative.

(202)

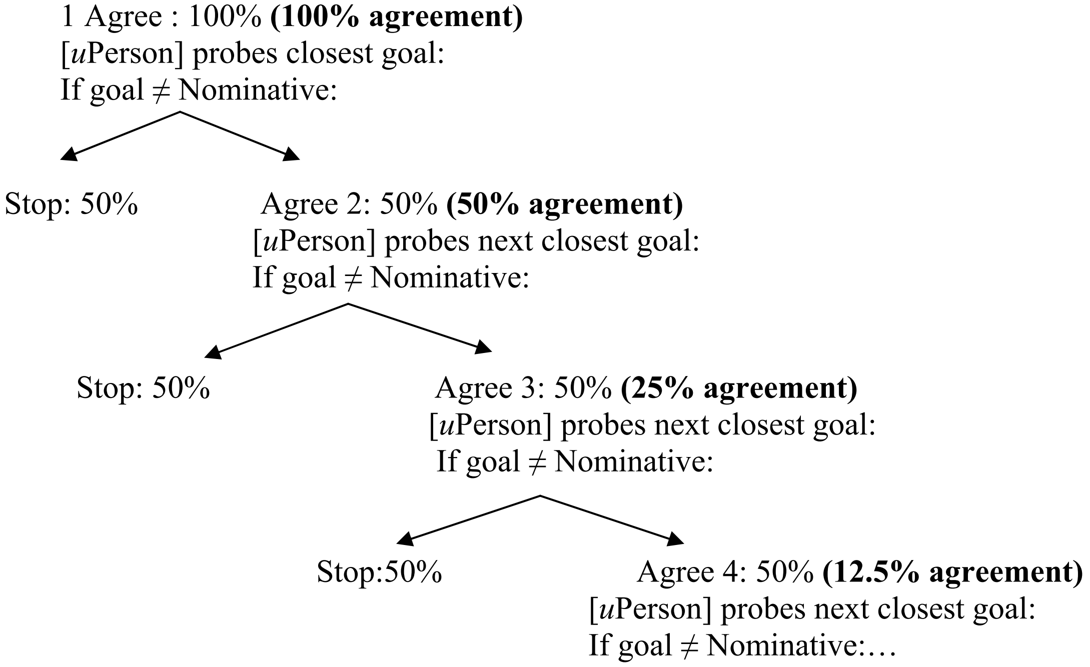


If [*u*Person] follows the relationships that [Nom] has established, it may be that the more dependencies that [*u*Person] must keep track of, the more likely it is that [*u*Person] will stop keeping track of those dependencies and agreement will fail. In essence, the more interveners there are, the less likely it is that a speaker will access the Nominative as the appropriate agreement trigger (see Wagers 2008 for a discussion of the role that short-term memory plays in agreement).

Given the present data, it seems that speakers have neither a bias toward additional applications of Agree, nor a bias against additional applications of Agree. If speakers were biased toward additional applications of Agree, then we would get results which are consistent with what has previously been reported. Agreement would simply be preferred across the board. We would not have constructions in which agreement is dispreferred. If speakers were biased against additional applications of Agree (perhaps due to a generational change), in constructions in which agreement was optional, we would expect that agreement would be dispreferred. While this is the case for most of the types of constructions examined in this dissertation, we would still need to find an explanation for the increase in degradation across constructions. The proposed system leaves open the possibility of languages or speakers having a bias either toward or against increased applications of Agree, in which case we would not find the kind of optionality that surfaces in Icelandic.

In Icelandic, however, it seems that speakers are not biased in either direction and simply make a decision each time [*u*Person] encounters a goal that is not Nominative. Either [*u*Person] will continue on to the next goal or not. Suppose we assume a decision tree model, in which there is a 50% chance that a speaker will stop after any Agree relation and a 50% chance that a speaker will go on to the next Agree relation. Such a model and the predicted rates of agreement are shown in (203). As illustrated, we predict that the rate of agreement for every Agree relation will be half the rate of agreement of the previous Agree relation.

(203) Agreement Decision Tree


1 Agree : 100% **(100% agreement)**
[*u*Person] probes closest goal:
If goal ≠ Nominative:
Stop: 50%
Agree 2: 50% **(50% agreement)**
[*u*Person] probes next closest goal:
If goal ≠ Nominative:
Stop: 50%
Agree 3: 50% **(25% agreement)**
[*u*Person] probes next closest goal:
If goal ≠ Nominative:
Stop:50%
Agree 4: 50% **(12.5% agreement)**
[*u*Person] probes next closest goal:
If goal ≠ Nominative:…

The relative preferences for agreement line up with the predictions in (203), as shown in (204).

(204)

Word Order	**# Agree to get to Nom**	**Predicted Frequency**	**Actual Frequency**
A. Expl-verb-Nom	1	100%	100%
B. Dat-verb-Nom	2	50%	46.6%
C. Expl-verb-Dat-Nom	3	25%	35.8%
D. Dat-verb-[$_{TP}$ Nom…]	3	25%	36%
E. Expl-verb-Dat[$_{TP}$ Nom…]	4	12.5%	17.5%

The rate of agreement in constructions which require two Agree relations is slightly under 50%, in line with the prediction. The rate of agreement in constructions which require three or four Agree relations is higher than predicted. This may be because there is a slight bias toward additional applications of Agree. The crucial point made by (204) is if we assume that speakers are not strongly biased either toward or against Multiple

Agree, then the prediction that the rate of agreement should decrease as the number of Agree relations increases is confirmed. I do not presently have enough data to make predictions about absolute frequency distributions related to agreement. Rather, my goal is to model and predict the frequency distribution of one type of construction in relation to another type of construction.

5.4. What is the relationship between case and agreement?

Though I have proposed that case and agreement are established via different operations, the simple fact is that case and agreement usually travel together. Verbs agree with Nominatives.[31] In Chapter 3, I proposed the statement in (205), and in this section I discuss the implications of (205).

(205) Unless case=Nom, a DP cannot contribute values for person or number.

What (205) means is that only a Nominative can value [*u*Person] and that the number feature of only a Nominative can be copied onto T. Even though I have proposed that the heads responsible for case and agreement probe independently, I am in no way attempting to diminish the relationship between case and agreement. On my analysis, T is born with both types of features because T assigns Nominative and verbs display the phi features of Nominatives.

There are several possible ways that the grammar could encode the relationship between case and agreement, while still maintaining separate probes. The first option is to allow for [*u*Person] to probe any DP, but only receive a value from a Nominative, as proposed in Chapter 3. This would mean that in Nominative-Accusative constructions

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[31] Woolford (2006b) proposes that it is possible for phi features to probe separately when Nominative is not valued on a DP.

with a 3rd person Nominative subject, [*u*Person] could probe the Accusative object. In constructions such as (206), [*u*Person] could probe both ‘some students’ and ‘this film’.

(206) Nokkrir stúdentar sáu þessa mynd.
some students.Nom.pl saw.3pl this film.Acc.sg
‘Some students saw this film.’

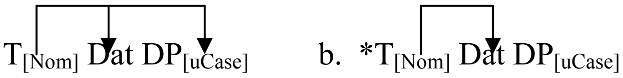
[*u*Person] would not receive a value from the Nominative because third person Nominatives do not have a person value. However, the [pl] number value would be copied. [*u*Person] would not receive a value from the Accusative because non-Nominative DPs cannot value [*u*Person]. The instruction sent to the morphology as a consequence of both sets of Agree relations would be that [*u*Person] is spelled out as default. We would, therefore, end up with a situation identical to that which arises when [*u*Person] probes a Dative subject and a 3rd person Nominative object, as discussed in Chapter 3. If the Nominative, however, bears a person value, then there would be a morphological clash. [*u*Person] would be spelled out as default, as a consequence of probing the Accusative. However, [*u*Person] would be spelled out with the person (and number) value of the Nominative. Unless there is syncretism, this derivation would be ungrammatical.

It does not seem computationally efficient to allow [*u*Person] to probe past a Nominative, when only a Nominative could value [*u*Person]. A second possibility is to restrict the probing domain of [*u*Person] so it does not extend beyond the probing domain of [Nom]. This would require a statement such as (207) in addition to (205).

(207) [uPerson] may not probe a DP that [Nom] has not also probed.

The reverse of (207) does not hold. As we know, [Nom] may probe a DP that [*u*Person] does not probe. The proposal that an agreement relationship is necessarily parasitic on a case relationship is in contrast to Bhatt's (2005) proposal in which a goal may be in an agreement relationship with one head and a case relationship with another head (see Chapter 4 for discussion.)

Since I have argued that Multiple Agree is optional, it is possible for [Nom] to probe a DP that already has a valued case feature. In fact, on the system proposed, [Nom] necessarily probes a Dative subject. Because probes necessarily enter into an Agree relation with the closest goal, in constructions such as (208)a, [Nom] necessarily probes the Dative. Derivations in which Multiple Agree does not apply – meaning that [Nom] probes only the Dative – necessarily crash because case is not valued on the object, as shown in (208)b.



(208) a. $T_{[Nom]}$ Dat $DP_{[uCase]}$ b. *$T_{[Nom]}$ Dat $DP_{[uCase]}$

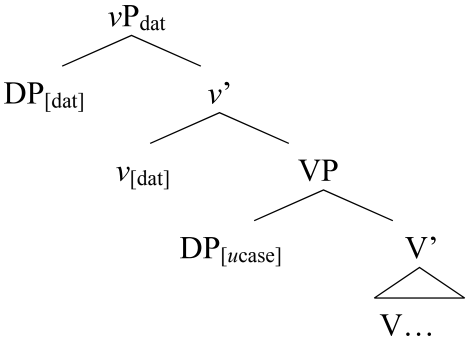
It could be that in constructions such as (208)b [*u*Person] would be prevented from probing the object DP because [Nom] has not probed the object DP. However, because this derivation is never grammatical, this proposal cannot be tested on Icelandic.

As the proposed system currently operates, there is an implicit assumption that [Nom] probes at the same time or before [*u*Person] because there is a requirement that only a Nominative can value [*u*Person] and the number feature of only a Nominative can be copied onto T. However, it is worth considering what would happen if [*u*Person] probes before [Nom]. The statement in (88)(205) could be rewritten as the statement in (209) and the consequence would be the same.

(209) Unless its case is unvalued, a DP cannot contribute values for person or number.

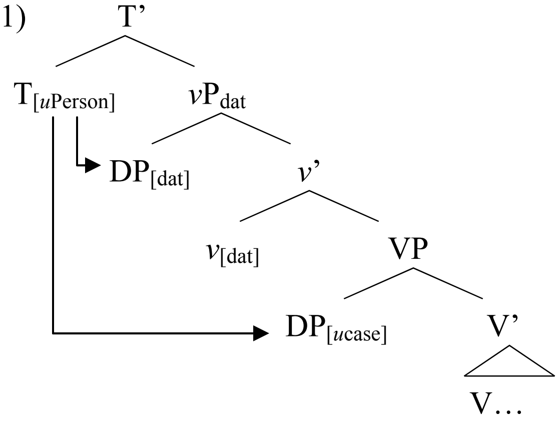
In Dative-Nominative constructions, the Dative subject has its case valued when it is merged in Spec,vP$_{\text{Dat}}$, as shown in (210).

(210)



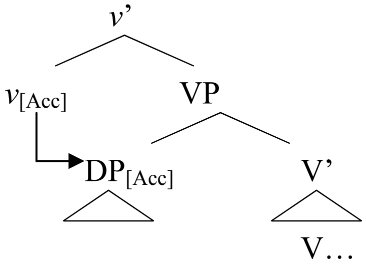
Therefore, when T is merged and [*u*Person] probes, only the object has an unvalued case feature, and only the object could value [*u*Person], as shown in (211).

(211)

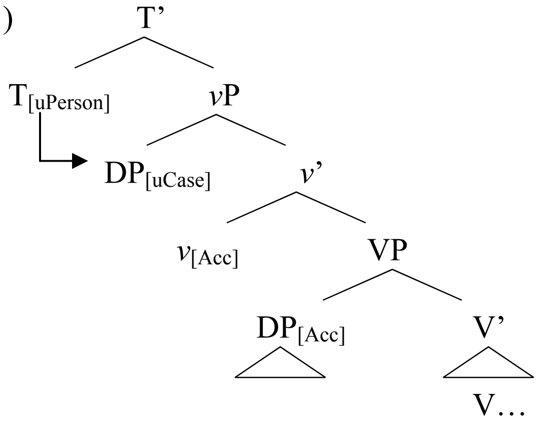

T'
$\text{T}_{[u\text{Person}]}$
$v\text{P}_{\text{dat}}$
$\text{DP}_{[\text{dat}]}$
v'
$v_{[\text{dat}]}$
VP
$\text{DP}_{[u\text{case}]}$
V'
V…

In Nominative-Accusative constructions, only the subject would have an unvalued case feature at the point at which [*u*Person] probes. As shown in (212), the object has Accusative case valued by *v*. As shown in (213), only the subject could value [*u*Person].

(212)



(213)



Crucially, it would never be the case that when [*u*Person] probes there is more than one DP with an unvalued case feature. The statement in (209), therefore, delivers the same result as the statement in (205). Even so, (209) fails to convey the relationship between Nominative and agreement, and for this reason, it may be the less appealing option.

5.5. Which T values Nominative?

Also relevant to the relationship between case and agreement is the question of which T values Nominative in bi-clausal constructions. In the standard GB literature, it was argued that only finite T assigns Nominative case. This allowed for an explanation for the distribution of PRO. Since PRO was argued to occupy a position in which it could not be governed – and therefore could not be assigned case – it was necessarily phonologically null.[32]

However, there is evidence that non-finite T° in Icelandic assigns Nominative case, as illustrated by the well-known floated quantifier data reported in Sigurðsson (1991). In (214), the embedded quantifier *allir* 'all' is Nominative.

(214) Strákarnir vonast til [að PRO komast allir í skóla].
the boys.Nom hope for to get all.Nom in school
'The boys all hope to get to school.' (Sigurðsson 1991)

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[32] On some accounts, PRO was argued to be assigned a special "null" case.

Unlike English, Icelandic control constructions contain an overt complementizer, *að*. The presence of a complementizer suggests that the embedded clause is a full clause, and not a restructuring infinitive (see Chapter 4, Section 4.4.1. for discussion). Since case assignment does not cross (full) clausal boundaries, Nominative cannot be assigned into the complement clause by finite T. Additionally, since the quantifier in (214) is not at the edge of the lower clause (and there is not evidence that the quantifier covertly moves to a topic position at the edge of the clause), the quantifier is not sufficiently local to finite T to enter into an Agree relation. Constructions such as (214), therefore, suggest that non-finite T in Icelandic assigns Nominative.

However, it does not seem to be the case that non-finite T in Icelandic always assigns Nominative. In sentences such as (215), the embedded subject is Nominative, with Nominative likely being assigned by the matrix T, not the infinitival T.

(215) Einum dómara sýndist/sýndust þessar athugasemdir vera óréttlátar.
one judge.Dat.sg understood.3sg/3pl these comments.Nom.pl to be unfair
'One judge understood these comments to be unfair.'

In English ECM constructions, *v* assigns Accusative to the embedded subject, as in *The judge found him to be unfair*. This is also the case in Icelandic ECM constructions in which the matrix subject receives structural case, as in (216).

(216) Þeir telja hana heita Maríu
they.Nom believe her.Acc be-called Mary.Acc
'They believe her to be called Mary.' (Thráinsson 2007:168)

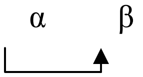
Since a head in the matrix clause assigns case to the embedded subject in (216), it is reasonable to assume that a head in the matrix clause assigns case to the embedded subject in (215).

That non-finite T assigns Nominative in (214), but fails to do so in (215) suggests that there are perhaps two types of non-finite T. The non-finite T that is merged in control constructions has a [Nom] value, while the non-finite T that is merged in ECM constructions does not have a [Nom] value. This proposal seems plausible, as Moulton (2009) argues that the inflectional heads in ECM have semantic properties which distinguish them from the inflectional heads in control and raising infinitivals.

5.6 What is the directionality of probing?

The final issue I address in this chapter is whether probe-goal relationships must be established under c-command. In Chapters 3 and 4 , I propose that Agree can hold in a Spec-head configuration or under c-command, as stated in (217).

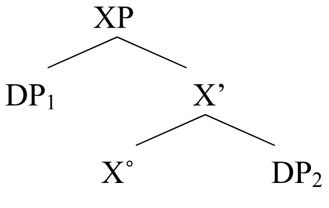
(217)



Agree (α, β), where α is a probe and β is a matching goal and β is in the specifier of α or α c-commands β. Uninterpretable features of α and β are checked/deleted.

Additionally, I proposed that a probe enters into an Agree relation with the closest goal, as stated in (218).

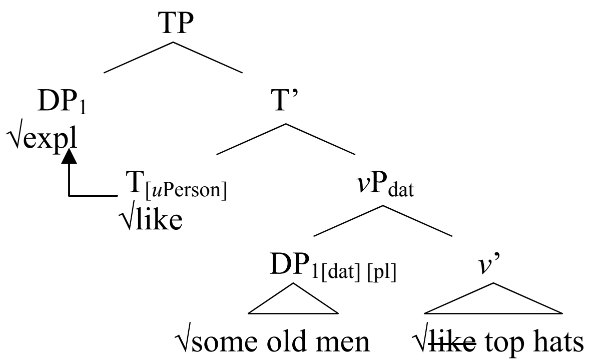
(218) A probe enters into an Agree relation with the closest goal.
DP_1 is closer to X° than DP_2 is when DP_1 c-commands DP_2.



(Chomsky 2000)

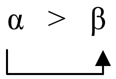
Given (217) and (218), in (219) [*u*Person] necessarily probes the expletive in Spec,TP.

(219)



The definition of Agree in (217) differs slightly from Chomsky (2000)'s definition, in which Agree holds between items that are in a c-command relation. As stated in (220), a probe necessarily c-commands a goal.

(220)

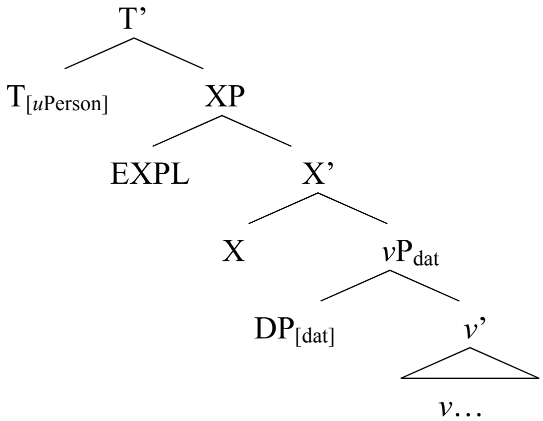


Agree (α, β), where α is a probe and β is a matching goal, '>' is a c-command relation and uninterpretable features of α and β are checked/deleted.

(Chomsky 2000)

Adopting a system in which Agree is established only under c-command would require that the expletive in constructions such as (219) is merged lower than T, as illustrated in (221).

(221)



While merging an expletive lower than T has been argued for in analyses of English expletive constructions (see Deal to appear), such an analysis has not been proposed for

Icelandic. Deal's (to appear) motivation for merging English expletives low is that expletive constructions in English are allowed only with a limited class of unaccusative verbs. That very particular verbs can select for an expletive suggests that the expletive is merged in a position closer to the verb than Spec,TP is. Icelandic does not have such particular restrictions on the type of verb which may select for an expletive. As we have seen, Icelandic allows for both transitive and intransitive expletive constructions. The fact that Icelandic does not have the stringent requirements for expletive constructions that English has does not necessarily mean that the expletive could not be merged lower than T in Icelandic. The standard treatment of Icelandic expletives, however, is that they are merged in Spec,TP or Spec, CP (see Chapter 4, Section 4.13. for a discussion of my motivation for merging the expletive in Spec,TP). The account presented in Chapter 4 could still be maintained if the expletive is merged lower than T. It would still be the closest goal, and [*u*Person] would necessarily enter into an Agree relation with it.

Though Chomsky's (2000) definition of Agree requires a c-command relationship, there are other examples of a head probing its specifier. In particular, non-structural case is assigned in a Spec-head configuration. As proposed by Woolford (2006b), v_{Dat} probes its specifier and values Dative the case of a subject. Given that the head which assigns non-structural case probes its specifier, it is reasonable to assume that that [*u*Person] could probe its specifier.

5.7. Conclusion

In this chapter, I have motivated and explored the implications of several aspects of my proposal. First, I argued that case and agreement features are determined in the syntax because situating case and agreement at PF requires operations which are akin to those which apply in the syntax. Second, I argued that the relative preferences for agreement across constructions suggests that speakers are not strongly biased either toward or against increased applications of Agree. Third, I argued that there are various ways to express the relationship between case and agreement, while maintaining a system in which [Nom] and [*u*Person] probe separately. Fourth, I argued that in the ECM constructions investigated in this dissertation, Nominative is assigned by the matrix T, even though non-finite T in Icelandic assigns Nominative in some constructions. Finally, I argued that adopting a system in which Agree holds only under c-command requires merging Icelandic expletives lower than T, and that the Agree relations established in such a structure are consistent with my analysis of the degradation in agreement.

Chapter 6 – Conclusion

In this dissertation I have presented an argument for the division between case and agreement. My investigation of this topic is motivated by the conflicting claims made in the literature on Icelandic agreement with respect to whether or not agreement is optional in some constructions. Perhaps the largest looming question that arises from this dissertation involves investigating the source of the optionality that is reported. Unlike other variation phenomena, variation in Icelandic cannot readily be classified by region and categorizing speakers presents a challenge.

Sigurðsson and Holmberg (2008) report that there are various agreement dialects, and this idea may be on the right track. It may be that speakers can be characterized in terms of whether or not they allow Multiple Agree. As we saw, a small percentage of the speakers who participated in my survey seem not to allow Multiple Agree. For speakers who do allow Multiple Agree, it may be possible to characterize them in terms of the locality conditions on Multiple Agree. There seems to be some support for this idea, given that as the number of Multiple Agree relations increases, the number of survey participants who allow that derivation decreases.

Sigurðsson and Holmberg (2008) also suggest that the optionality in agreement may be due to language change. This may certainly be the case. A multi-generational study is needed in order to determine if agreement patterns vary according to age.

However, it may be that Multiple Agree is simply optional and available to all speakers. If this is the case, then whether a speaker chooses a derivation utilizing Multiple Agree is, in essence, a matter of rolling the dice and picking a derivation. This dissertation has illustrated, I believe incontrovertibly, that agreement with Nominative objects and embedded Nominative subjects is optional. More investigation is required in order to posit a more enriched theory about the source of this optionality.

APPENDIX

SURVEY ITEMS

<u>Mono-clausal constructions</u>

(1) Sumum gömlum mönnum líkar/líka pípuhattar.
some.Dat.pl old.Dat.pl men.Dat.pl like.sg/3pl top hats.Nom.pl
‘Some old men like top hats.’

(2) Það líkar/líka sumum gömlum mönnum pípuhattar
expl like.3sg/3pl some old men.Dat top hats.Nom
‘Some old men like top hats.’

(3) Sumum stelpum leiddist/leiddust æfingarnar
some girls.Dat bored.3sg/3pl exercises.Nom
‘Some girls found the exercises boring.’

(4) Það leiddist/leiddust sumum stelpum æfingarnar
expl bored.3sg/3pl some girls.Dat exercises.Nom
‘Some girls found the exercises boring.’ (based on Sigurðsson 1996:ex3)

(5) Mörgum stúdentum mistókst/ mistókust allar tilraunirnar
many students.Dat failed.3sg/3pl all attempts-the.Nom
‘Many students failed all the attempts.’

(6) Það mistókst/ mistókust mörgum stúdentum allar tilraunirnar
expl failed.3sg/3pl many students.Dat all attempts-the.Nom
‘Many students failed all the attempts.’ (based on Sigurðsson 1996:ex51/52b)

(7) Einhverjum urðu /varð á mikil mistök
someone.Dat became.3pl/3sg onto great mistakes.Nom
‘Someone made big mistakes.’

(8) Það urðu/ varð einhverjum á mikil mistök
expl became.3pl/3sg someone.Dat onto great mistakes.Nom
‘Someone made big mistakes.’ (based on Sigurðsson 1996:ex54b)

<u>Bi-Clausal Constructions</u>

(9) Einhverjum nemanda mundi/mundu finnast þessi próf óréttlát
some student.Dat would.3sg/3pl seem these exams.Nom unfair
‘To some student, these exams would seem unfair.’

(10) Það mundi/mundu einhverjum nemanda finnast þessi próf óréttlát
there would.3sg/3pl some student.Dat seem these exams.Nom unfair
‘To some student, these exams would seem unfair.’
(based on Sigurðsson and Holmberg 2008, ex 18)

(11) Mörgum kennurum höfðu/hafði fundist stelpurnar vera gáfaðar
many.Dat teachers.Dat.pl had.3pl/3sg found girls-the.Nom.pl be intelligent
'Many teachers had found the girls intelligent.'

(12) Það höfðu/hafði mörgum kennurum fundist stelpurnar vera gáfaðar
expl had.3pl/3sg many teachers found girls-the.Nom be intelligent
'Many teachers had found the girls intelligent.'
(based on Sigurðsson 1996:ex61)

(13) Einum dómara sýndist/sýndust þessar athugasemdir vera óréttlátar
one judge.Dat understood.3sg/3pl these comments.Nom be unfair
'One judge understood these comments to be unfair.'

(14) Það sýndist/sýndust einum dómara þessar athugasemdir vera óréttlátar
expl understood.3sg/3pl one judge.Dat these comments.Nom be unfair
'One judge understood these comments to be unfair.'

(15) Mörgum þóttu/þótti kjólarnir dýrir
many.Dat found.3pl/3sg dresses-the.Nom.pl expensive
'Many found the dresses expensive.'

(16) Það þóttu/þótti mörgum kjólarnir dýrir
expl found.3pl/3sg many.Dat dresses-the.Nom.pl expensive
'Many found the dresses expensive.'

Unaccusatives

(17) Það hafa/hefur horfið þrjár bækur úr hillunni
there have.3pl/3sg disappeared three books.Nom.pl from shelf-the.Acc
'Three books have disappeared from the shelf.' (based on Jónsson 1996:ex 80)

(18) Það hefur/hafa margir sjúklingar dáið í dag
there have.3sg/3pl many.Nom patients.Nom died today
'Many patients have died today.'
(based on Jónsson 1996, page 186-87, ex2/3d)

(19) Það opnaði/opnuðu allir bankar og kaffihús
expl open.3sg/3pl all.Nom banks.Nom.pl and coffeehouses.Nom.pl
í Kringlunni klukkan tíu
at Kringlunni clock ten
'All banks and coffeehouses in Kringlunni open at 10.'
(based on Thráinsson 2007, example 5.106b)

(20) Það höfðu/hafði komið gestir í heimsókn
there had.3pl/3sg come guests.Nom for a visit
'Guests had come for a visit.' (based on Jónsson 1996, page 186, ex 1b)

Unergatives

(21) Það talaði/töluðu margar konur við Maríu
there talked.3sg/3pl many.Nom women.Nom to Mary
'Many women talked to Mary.' (based on Jónsson 1996, page 186, 2a/b)

(22) Það hlupu/hljóp þrjár rollur yfir veginn
there ran.3pl/3sg three sheep.Nom over road-the.Acc
'Three sheep ran over the road.' (based on Thráinsson 2007, ex 6.3a)

(23) Það slógust/slóst fjórir nemendur á ballinu
there fought.3pl/3sg four students.Nom at dance-the.Acc
'Four students fought at the dance.' (based on Thráinsson 2007, ex 6.2a/6.3a)

(24) Það dansaði/dönsuðu þrír bræður í stofunni
there danced.3sg/3pl three brothers.Nom.pl in the living room.Acc
'Three brothers danced in the living room.'
(based on Jónsson 1996, page 47, ex 1)

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