ARGUMENT ELLIPSIS
and
STRONG ISLANDS

Ezekiel Joseph Panitz

Thesis submitted in partial fulfillment of the requirements for the degree of

DOCTOR OF PHILOSOPHY

in Linguistics

UCL
2018
DECLARATION

I, Ezekiel Joseph Panitz, confirm that the work presented in this thesis is my own. Where information has been derived from other sources, I confirm that this has been indicated in the thesis.

Ezekiel Joseph Panitz
To my parents
This thesis investigates two topics: (i) the distribution of argument ellipsis (AE) in languages that permit AE, and (ii) the status of strong islands (SIs).

Regarding (i): The present thesis develops a novel account of the distribution of AE. According to this account, AE is subject to a locality constraint: in languages with AE, an argument may undergo AE only if it is local to V. Crucially, the definition of locality varies as a function of whether the language in question is VO or OV. In VO languages, an argument is local to V if and only if it is immediately preceded by V. In OV languages, an argument is local to V if and only if it is a sister of V or V'.

With respect to OV languages, it is assumed, following Neeleman and Weerman (1999), that some OV languages base-generate external arguments (EAs) in [Spec, VP], whereas others base-generate EAs as adjuncts to VP. [Spec, VP] is local to V; the adjunct-to-VP position is not. Accordingly, the present account correctly predicts that AE-allowing OV languages fall into two classes: those that allow AE of EAs and those that do not. More significantly, it predicts which AE-allowing OV languages fall into which class. Those that generate EAs in [Spec, VP] allow AE of EAs; those that generate EAs as adjuncts to VP do not.

The account of AE proposed here is argued for on the basis of two studies: one, a case study of AE in Brazilian Portuguese, a VO language; the other, a study of a variety of AE-allowing OV languages.

Regarding (ii): it is generally held that SI-crossing movement is possible, provided some special step is taken (e.g., ellipsis of the island, insertion of a resumptive pronoun). This thesis argues, on the basis of reconstruction facts in Brazilian Portuguese, Hebrew, Norwegian, and Swedish, that SIs are absolute barriers to movement. Under no circumstance can movement take place out of an SI.
I would like to take this opportunity to express my deep gratitude to my supervisor, Klaus Abels, from whom I have learned a great deal.

I also wish to express my appreciation to my secondary supervisor, Hans van de Koot, and to Marcus Lunguinho, Ad Neeleman, Andrew Nevins, David Pesetsky, Cilene Rodrigues, and Yasu Sudo for having discussed various aspects of my doctoral research with me, and to Juanito Avelar, Sonia Cyrino, Cristiany Fernandes, Elisabete Ferreira, Elaine Grolla, Ingrid Johansen, Jaqueline Karlsson, Eva Klingvall, Marcus Lunguinho, Marcelo Giovannetti Ferreira Luz, Julian Lysvik, Bruna Moreira, and Yasu Sudo, for having graciously provided me with their grammaticality judgements.

Finally, I gratefully acknowledge the financial support I received from UCL, in the form of the UCL Graduate Research Scholarship and the UCL Overseas Research Scholarship.
## Contents

1 **Introduction**  13

2 **Literature Review**  19
   2.1 Introduction  19
   2.2 The Anti-Agreement Theory of Argument Ellipsis  19
   2.3 Cheng (2013)  28
   2.4 Semantically-restricted Accounts of Argument Ellipsis  32
      2.4.1 Tomioka (2003)  32
      2.4.2 Bošković (2016, 2017)  36

3 **A Novel Account of the Distribution of Argument Ellipsis**  39
   3.1 Introduction  39
   3.2 Ackema and Neeleman (2004)  41
   3.3 Neeleman and Weerman (1999), Part I  42
      3.3.1 Thematic Mapping and External Arguments  43
      3.3.2 Visibility, Dependent Marking, and Head Marking  46
      3.3.3 Case Features, Case Paradigms, and Thematic Roles  52
      3.3.4 Summary  59
   3.4 Neeleman and Weerman (1999), Part II  60
      3.4.1 Empty and Filled Case Shells  61
      3.4.2 Head Government at the Syntax-Phonology Interface and the Ban on Unmotivated Movement  62
      3.4.3 Excursus on Certain Impossible Movements  65
   3.5 On the Distribution of Argument Ellipsis: A Novel Account  67
      3.5.1 Locality: Stating the Constraint  67
      3.5.2 Locality: Point of Application  68
      3.5.3 Locality: Some Predictions  70

4 **The Distribution of Argument Ellipsis in Brazilian Portuguese**  77
4.1 Null Objects 77
4.2 Subjects of Small Clauses and Subjects of Infinitival Clauses 91
4.3 Subjects of Finite Clauses 100
4.4 The Relevance of Brazilian Portuguese to Other Accounts of Argument Ellipsis 105

5 THE DISTRIBUTION OF ARGUMENT ELLIPSIS IN OV LANGUAGES 117
5.1 Japanese 119
5.2 Korean 129
5.3 Mongolian 131
5.4 Bangla 132
5.5 Hindi 138
5.6 Persian 142
5.7 Turkish 144

6 STRONG ISLANDS AS ABSOLUTE BARRIERS TO MOVEMENT 149
6.1 Introduction 149
6.2 Reconstruction and Strong Islandhood 151
6.2.1 Two Classes of Reconstruction 151
6.2.2 Two Views on Strong Islandhood 156
6.2.3 Literature Review 159
6.3 Reconstruction and Island-Crossing Resumption-Chains 164
6.3.1 Survey Design 164
6.3.2 Survey Results 170
6.4 Reconstruction and Island-Crossing Gap-Chains 179
6.5 Conclusion 187
6.6 Postscript 188
6.6.1 SI-crossing Reconstruction 189
6.6.2 Reconstruction Conflicts 196

BIBLIOGRAPHY 205
INTRODUCTION

There are languages in which null arguments exhibit a considerable degree of interpretative freedom. In Japanese, for instance, null arguments allow definite, indefinite, and quantificational construals.

(1) a. seerusuman-ga Mary-no uchi-ni kita.
   salesman-NOM Mary-GEN house-to came
   ‘A salesman came to Mary’s house.’

b. ___ John-no uchi-ni-mo kita.
   ___ John-GEN house-to-also came
   Definite construal: ‘He (i.e., the salesman who came to Mary’s house) also came to John’s house.’
   Indefinite construal: ‘A salesman also came to John’s house.’
   (Oku, 1998)

(2) a. Hanako-ga taitei-no sensei-o sonkeisiteiru.
   Hanako-NOM most-GEN teacher-ACC respect
   ‘Hanako respects most teachers.’

b. Taroo-mo ___ sonkeisiteiru.
   Taroo-also ___ respects
   Definite Construal: ‘Taroo also respects them (i.e., the teachers Hanako respects).’
   Quantificational construal: ‘Taroo also respects most teachers.’
   (D. Takahashi, 2008b)

A number of researchers have attributed the interpretative freedom exhibited above to the availability of an ellipsis operation, specifically targeting arguments. Under this proposal, null arguments in languages such as Japanese can be generated in two different ways: on the one hand, they can be generated as pro, whence the availability of the definite interpretation; on the other hand, they can be generated through argument ellipsis, whence the indefinite and quantificational construals.

To illustrate, the sentence in (1-b) can be generated as in (3-b), with a null pronoun, or as in (3-c), with ellipsis of the indefinite. The former derivation gives rise to the definite construal, while the latter gives rise to the indefinite construal. Similarly, (2-b) can be generated with a null pronoun or with ellipsis of taitei-no sensei-o
‘most teachers’, yielding the definite and the quantificational readings, respectively.

(3) a. [seerusuman-ga] Mary-no uchi-ni kita.
    b. pro John-no uchi-ni-mo kita.

    b. Taroo-mo pro sonkeisiteiru.
    c. Taroo-mo [taitei no sensei-o] sonkeisiteiru.

Interestingly, languages in which argument ellipsis is possible differ from one another in the extent to which they exhibit argument ellipsis. For instance, while Japanese allows argument ellipsis of subjects and objects, Chinese is more restrictive, allowing argument ellipsis of objects, only. Theories of argument ellipsis must therefore allow for a certain degree of flexibility, allowing cross-linguistic differences in the distribution of argument ellipsis.

Still, there are limits on the extent of such cross-linguistic differences. For instance, while there are languages in which argument ellipsis may target objects but not subjects, there seem to be no languages in which argument ellipsis may target subjects but not objects. Theories of argument ellipsis must therefore admit of just the right amount of flexibility, allowing certain patterns of variation but not others.

In the present thesis, a novel account of the distribution of argument ellipsis is proposed. According to this account, argument ellipsis is subject to the following constraint, which holds at the syntax-phonology interface.

(5) In languages in which argument ellipsis is permitted, argument ellipsis of an argument Arg is possible only if Arg and V are local.

Crucially, the definition of locality varies as a function of whether the language in question is VO or OV. In VO languages, locality is defined as immediate precedence. In OV languages, locality is defined in terms of sisterhood.

(6) Locality (VO version):
    V and Arg are local if and only if V immediately precedes Arg.

(7) Locality (OV version):
    V and Arg are local if and only if Arg is a sister of V or V'.
According to the present account, then, argument ellipsis is sanctioned in one of two contexts: (i) under immediate precedence by V; (ii) under sisterhood with V or V'. Moreover, the choice of context depends upon a language’s status as VO or OV.

The present account adopts certain aspects of the framework developed in Neeleman and Weerman (1999), according to which some languages base-generate external arguments in [Spec, VP], while others base-generate external arguments as adjuncts to VP. With this assumed, the present account predicts a subdivision within the class of argument ellipsis-allowing OV languages. In those in which external arguments are generated in [Spec, VP], external arguments will qualify as local to V and will therefore be able to elide. In those in which external arguments are generated as adjuncts to VP, external arguments will not qualify as local to V and will therefore be unable to elide.

The current account of argument ellipsis is conceptually novel, in that it ties the distribution of argument ellipsis to word order parameters: specifically, VO versus OV, and the position within which arguments are generated. It is also rather distinct on an empirical level, in that it produces various predictions not produced by existing accounts of argument ellipsis. In the fourth and fifth chapters of the present study, it will be argued that these predictions are borne out. The fourth chapter is a case study of argument ellipsis in Brazilian Portuguese (BP), a VO language. There, it will be argued that the distribution of argument ellipsis in BP is indeed subject to the immediate precedence requirement in (6). The strongest evidence in support of this conclusion comes from the behavior of subjects of finite clauses. The availability of argument ellipsis with such subjects depends upon the subject’s linear position vis-à-vis the verb. If the verb precedes, ellipsis is permitted. If the subject precedes, ellipsis is out.

\[
\begin{align*}
(8) & \quad a. \ (\ldots) \ V \text{SU} \ (\ldots) \\
& \quad b. \ *((\ldots) \text{SU} \ V \ (\ldots))
\end{align*}
\]

The fifth chapter is a survey of argument ellipsis in a variety of OV languages. An examination of the literature on argument ellipsis in OV languages reveals that OV languages fall into two classes: those that permit argument ellipsis of external arguments
and those that do not. In this chapter, it will be argued that a language’s membership in one or the other class is determined by the position within which it base-generates its external arguments, in the manner discussed above.

The second and third chapters set the stage for the fourth and fifth chapters. The second chapter reviews the literature on argument ellipsis, focusing on those accounts that deal with the distribution of argument ellipsis. The third chapter introduces those aspects of Neeleman and Weerman (1999)’s framework that are relevant to the present study. The third chapter also introduces the current study’s account of argument ellipsis.

In addition to argument ellipsis, the present thesis examines strong islands (SIs). Under what is arguably the standard view of SIs, SIs constitute absolute barriers to movement: whenever movement takes place across an SI, ungrammaticality ensues. This view of SIs contrasts with an alternative view, under which movement can indeed take place across SIs, albeit only under specific conditions. For instance, it is sometimes argued that movement can cross SIs, provided the island is subsequently elided (Chomsky, 1972; Lasnik, 2001; Merchant, 2008; Ross, 1969). Similarly, it is sometimes claimed that movement can take place across SIs, provided this movement takes place covertly (Hagstrom, 1998; Huang, 1982). Finally, Boeckx (2003), building on earlier work by Demirdache (1991) and Ross (1967), proposed that movement can cross SIs, provided the moved expression leaves behind a resumptive pronoun (RP). In short, then, the two views of strong islandhood differ in that, under the standard view, the barrierhood of SIs is absolute, ruling out all instances of extraction, whereas under the alternative view, the barrierhood can be circumvented, but only under certain conditions.

The sixth chapter is a study of SI-crossing wh-chains in BP and Hebrew. This chapter presents the results of an online survey whose objective was to examine whether BP and Hebrew permit SI-crossing reconstruction down wh-RP chains. This survey revealed the existence of two classes of BP and Hebrew speakers: those who never allow reconstruction down wh-RP chains, and those who do, but only when the sentence does not contain an SI. These results, and in particular, those of the latter group, provide support for the standard view of SIs and against the alternative view.
The sixth chapter likewise examines the reconstruction profile of SI-crossing wh-gap chains in BP. On the basis of small-scale informant work, it is concluded that SI-crossing reconstruction is permitted to a limited extent, but in a manner consistent with the standard view of SIs and inconsistent with the alternative view.

The chapter closes with a brief examination of SI-crossing filler-gap dependencies in Norwegian and Swedish. Both languages permit SI-crossing filler-gap dependencies rather freely, as is well-known (Allwood, 1982; Engdahl, 1997; Heinat and Wiklund, 2015). The status of these dependencies—i.e., whether they are generated under movement or not—is thus of central importance to the question of whether SIs are absolute barriers to movement. I argue, once again on the basis of reconstruction data, that these dependencies are not generated under movement. Thus, SI-crossing filler-gap dependencies in Norwegian and Swedish provide further support for the conclusion reached in the sixth chapter: that SIs constitute absolute barriers to movement.
2 LITERATURE REVIEW

2.1 INTRODUCTION

Studies of argument ellipsis tend to focus on the question of why some languages allow argument ellipsis and others do not. The distribution of argument ellipsis in languages that allow argument ellipsis has received less attention. Indeed, no study has taken the distributional issue as its primary focus of inquiry. Still, the issue has received some attention, and some accounts of argument ellipsis do make concrete predictions with respect to it. The present chapter reviews the relevant literature, making note of the predictions made. These predictions will be assessed in the fourth chapter on the basis of the data adduced there.

Some of the data presented in the fourth chapter bear upon an independent issue, not directly concerning the distribution of argument ellipsis. According to Tomioka (2003) and Bošković (2016, 2017), argument ellipsis is semantically restricted, in that it can target expressions of type <e,t>, only. In the fourth chapter, it will be shown that expressions of type <et,t> can undergo argument ellipsis as well, in Brazilian Portuguese at least. The present chapter therefore includes a discussion of these two authors’ respective proposals.

2.2 THE ANTI-AGREEMENT THEORY OF ARGUMENT ELLIPSIS

The anti-agreement theory of argument ellipsis (Saito, 2007; Sato and Karimi, 2016; Şener and D. Takahashi, 2010; D. Takahashi, 2014, hereafter, the ‘AAT’) is a theory of argument ellipsis which consists of the following claims: (i) argument ellipsis is instantiated through LF-copy; (ii) LF-copy can, in principle, apply to any ar-
argument in any language; (iii) the Activation Condition (Chomsky, 2000) constrains the application of LF-copy.

Consider the following, which illustrates how the Activation Condition functions as a constraint on argument ellipsis.

(1) Antecedent sentence
   a. \( \ldots F_1\{\phi\} \ldots DP_1\{\phi, \text{Case}\} \ldots \)
   b. \( \ldots F_1\{\phi\} \ldots DP_1\{\phi, \underline{\text{Case}}\} \ldots \)

(2) Elliptical sentence
   a. \( \ldots F_2\{\phi\} \ldots \underline{\ldots} \ldots \)
   b. \( \ldots F_2\{\phi\} \ldots DP_1\{\phi, \underline{\text{Case}}\} \ldots \)

The \( \phi \)-features on \( F_1 \) probe and agree with \( DP_1 \), resulting in the deletion of \( F_1 \)'s uninterpretable \( \phi \)-features and the \( DP \)'s uninterpretable Case-feature. The \( DP \) is now inactive, i.e., unable to enter into further probe-goal dependencies. At LF, the \( DP \) is copied into the empty position in the elliptical sentence. Since the \( DP \) is inactive, it cannot function as a goal, and \( F_2 \)'s \( \phi \)-features remain undeleted, causing the derivation to crash.

As a concrete example, consider (3).

(3) a. John \( v_1 \) brought his friend
    b. *But Bill did not \( v_2 \) bring __

The \( \phi \)-features on \( v_1 \) probe and agree with 'his friend', deleting \( v_1 \)'s \( \phi \)-features and the \( DP \)'s Case-feature. The \( DP \) is copied into the elliptical sentence at LF, but it is inactive and cannot function as a goal for \( v_2 \). \( v_2 \)'s uninterpretable \( \phi \)-features therefore remain undeleted, and the derivation crashes.

Proponents of the AAT argue that the difference between languages that allow argument ellipsis and those that do not lies in the feature composition of those functional heads standardly assumed to take part in \( \phi \)-feature agreement: in languages without argument ellipsis, these functional heads bear \( \phi \)-features; in languages with argument ellipsis, some or all of these functional heads do not bear \( \phi \)-features.

With this in mind, consider the following.

(4) Antecedent sentence
   a. \( \ldots F_1 \ldots DP_1\{\phi, \text{Case}\} \ldots \)
   b. \( \ldots F_1 \ldots DP_1\{\phi, \underline{\text{Case}}\} \ldots \)

(5) Elliptical sentence
2.2 The Anti-agreement Theory of Argument Ellipsis

a. \( F_2 \ldots \, \phi \ldots \)

b. \( F_2 \ldots \text{DP}_{1}(\phi, \text{Case}) \ldots \)

Beginning with (4), note that the functional head lacks \( \phi \)-features, which raises the question of how the DP’s Case-feature is deleted. Let us put this question aside for the moment and assume that the DP somehow succeeds in getting its Case-feature deleted.

Returning to (4), the DP has its Case-feature deleted (in some unspecified fashion) and is copied into the elliptical sentence at LF. Since \( F_2 \) does not bear \( \phi \)-features, the fact that the DP is no longer active is irrelevant. The obstacle to argument ellipsis encountered in (2) has thus been avoided, and the derivation in (5) goes through.\(^1\)

The example in (6) serves as a concrete illustration.

(6) a. Taroo-wa [zibun-no tomodati-o] turete kita
    Taroo-\text{TOP} self-\text{GEN} friend-\text{ACC} brought
    ‘Taroo brought his friend.’

b. Demo Hanako-wa ___ turete konokatta
    but Hanako-\text{TOP} ___ brought not
    ‘But Hanako did not bring her friend.’ (Saito, 2007)

Assume that \( v \) in Japanese does not bear \( \phi \)-features. This so, when \( zibun-no tomodati-o \) is copied into the empty position at LF, it will not be called upon to enter into a probe-goal agreement dependency with \( v \). The DP’s inability to function as a goal is therefore irrelevant, and the derivation converges.

Returning now to the question left unaddressed above—of how the Case-feature of the LF-copied DP is deleted—unfortunately, this is a question that has received little attention in the AAT literature. Saito (2007) suggests in passing that Case is not licensed through \( \phi \)-feature agreement in Japanese. Rather, Nominative and Genitive are ‘contextual’ cases—cases assigned to DPs in a particular structural context—in the case of Nominative, to a DP merged with a projection of T; in the case of Genitive, to a DP merged with a projection of N (Saito, 1982). As for Accusative and Dative, Saito follows Kikuchi and D. Takahashi (1991) in analyzing these two cases as inherent case, licensed by V. In (6-a), for example, \( zibun-no tomodati-o \) has its Case-feature deleted by V, in conjunction with its being \( \theta \)-marked by the verb.

\(^1\)Alternatively, the DP can (or must) have its Case-feature deleted (in some unspecified fashion) after LF-copying. Nothing changes under this alternative set of assumptions; the derivation still converges.
Thus, one response to the question under discussion is to divorce Case-assignment (i.e., the deletion of Case-features) from \( \phi \)-feature agreement. To date, the AAT literature has not addressed the question of whether such an approach can be successfully extended to other languages with argument ellipsis.

A second response is to simply allow the DP to be generated without a Case-feature. Given the Activation Condition, this will be possible only when the DP will not be called upon to function as a goal for \( \phi \)-feature agreement. As Saito (2007) notes, this approach will not work for languages with morphological case, the assumption being that morphological case is the spell-out of abstract Case.\(^2\) As to whether such an approach would work for languages without morphological case, this is a question that remains to be explored by proponents of the AAT.

As can be appreciated from this short discussion, the AAT raises a number of non-trivial questions concerning Case theory, questions that proponents of the AAT have largely eschewed. Ultimately, the success of the AAT will depend on addressing these questions, and satisfactorily. In what follows, I will set this issue aside and limit the discussion to those aspects of the AAT that are sufficiently developed.

Returning to the main thread, the AAT is a theory of argument ellipsis consisting of two components: an operation (LF-copy) and a constraint (the Activation Condition). The operation is assumed to apply freely, in the sense that it can, in principle, apply to any argument in any language. As a matter of fact, proponents of the AAT do not restrict LF-copy to arguments; it can, in principle, apply to other types of expressions, such as adjuncts. The Activation Condition is then called upon to rein in the resulting overgeneration.

The strength of such an approach to argument ellipsis can be assessed along three lines. First, one can ask to what extent a theory based upon the Activation Condition makes testable predictions. The fewer it makes, the harder such a theory is to falsify—an ob-

---

\(^2\)For example, if DPs in Japanese (a language with morphological case) were permitted to enter the derivation without a Case-feature, it would be predicted that DPs in Japanese would freely surface without morphological Case. This prediction is incorrect; morphological case on Japanese DPs cannot be freely omitted.
vious weakness. Second, one can ask whether the Activation Condition is a sufficient constraint on argument ellipsis. If it is not, additional constraints will have to be called upon to eliminate the remaining overgeneration, and the AAT will suffer to the extent these additional constraints are not independently motivated. Third, one can ask whether the Activation Condition is too strong—that is, whether it incorrectly rules out grammatical instances of argument ellipsis. If the Activation Condition is indeed too strong, the AAT will have been dealt a rather debilitating blow, as if often the case when a theory is shown to undergenerate. Of course, the AAT could then retreat to the position that the Activation Condition functions as a constraint on argument ellipsis only in some languages, or only in some languages some of the times, but to do so would be to concede that the AAT is not a general theory of argument ellipsis. This aside, if it is shown that argument ellipsis successfully applies in contexts in which the Activation Condition would predict it to block, the idea that the Activation Condition is relevant to the applicability of argument ellipsis becomes rather dubious.

In the remainder of this section, I make note of the predictions generated by the AAT. These predictions fall into two classes: (i) cases in which the Activation Condition does not exclude a particular class of expressions from eliding; in such cases, the AAT predicts ellipsis to be possible; (ii) cases in which the Activation Condition does exclude a particular class of expressions from eliding; in such cases, the AAT predicts ellipsis to be impossible. In the fourth chapter, it will be concluded that both classes of predictions are incorrect: ellipsis is impossible in many of the instances in which the Activation Condition does not preclude ellipsis; and ellipsis is possible where the Activation Condition would indeed preclude ellipsis. The Activation Condition is thus neither a sufficient nor a necessary constraint on argument ellipsis (or on ellipsis more generally, in fact).

Having noted these predictions, I assess the AAT along the first line of assessment noted above. That is, I ask to what extent a theory founded upon the Activation Condition makes testable predictions. The conclusion reached here is that there is a significant class of expressions about which the AAT fails to make testable predictions.
I now turn to a presentation of the AAT’s predictions.

First, consider instances in which the LF-copied expression is an expression which never functions as a goal for $\phi$-feature agreement (e.g., PPs, adjuncts, secondary predicates). Since these expressions do not function as goals for $\phi$-feature agreement, the application of LF-copying to such expressions is not constrained by the Activation Condition. The AAT thus predicts that LF-copy should freely target such expressions, provided no independent constraint on ellipsis is violated in so doing.

(7) AAT, Prediction #1:
Expressions which never function as a goal for $\phi$-feature agreement (e.g., PPs, adjuncts, secondary predicates) are always able to undergo LF-copying (provided no independent constraint on ellipsis is violated).

Second, consider instances in which LF-copying copies a DP and there is visible (i.e., phonologically realized) agreement between the copied DP and some functional head in the elliptical sentence. Visible agreement is generally assumed to be parasitic on abstract $\phi$-feature agreement, in the sense that the former is the spell-out of the latter. This being so, the visible agreement on the functional head could have been produced only through abstract agreement between the head and the DP. However, abstract agreement between the head and the DP is impossible, since the copied DP has already had its Case-feature deleted prior to LF-copying and is therefore no longer active. Visible agreement between a functional head in the elliptical sentence and the LF-copied constituent is therefore impossible. In short, where there is visible agreement, there is abstract agreement and, hence, no LF-copying. The AAT thus predicts that visible agreement blocks argument ellipsis. Again, this is a testable prediction and one to which I will return.

(8) AAT, Prediction #2:
Visible agreement between the LF-copied DP and some functional head in the elliptical sentence is impossible. (In short, visible agreement blocks argument ellipsis.)

Before continuing, it is worth discussing this prediction in greater detail. Above, it was uncritically assumed that the copied DP has already had its Case-feature deleted prior to LF-copying. By the time LF-copying takes place, the DP is therefore inactive and unable to enter into further probe-goal dependencies. Visible agreement
between the DP and some functional head in the elliptical clause is therefore impossible.

Suppose, however, that the DP agrees with a functional head that does not bear a complete set of $\phi$-features. If this head is the only head the DP agrees with prior to LF-copying, the DP will still be active post-copying.

As a concrete illustration, consider the following example, in which the DP *duas picanhas* agrees in gender and number, but not person, with the secondary predicate.

(9)  
O João serviu duas picanhas bem passad-a-s e  
the João served [two steaks]F.PL well passed-F-PL and  
o Pedro serviu _ mal passad-a-s.  
the Pedro served _ poorly done-F-PL  
'João served two steaks well done, and Pedro served two steaks poorly done.'

Under an Agree-based system, the agreement between the DP and the secondary predicate is brought about through a probe-goal Agreement relation between the DP and some functional head. Let us call this head, 'S'. Crucially, S does not bear a complete set of $\phi$-features; it only bears number and gender features. Thus, if the DP does not agree with any other heads prior to LF-copying, it will still be active post-copying. As such, it will be able to agree with the occurrence of S in the second conjunct, deleting and valuing the latter’s number and gender features, as depicted below.

(10) Antecedent Conjunct

a. ... $S_1$[Number, Gender] ... [duas picanhas]$\{\phi$, Case$\}$ ...

b. ... $S_1$[Number, Gender] ... [duas picanhas]$\{\phi$, Case$\}$ ...

(From (10-a), via Agree($S_1$,duas picanhas))

(11) Elliptical Conjunct

a. ... $S_2$[Number, Gender] ... _ ...

b. ... $S_2$[Number, Gender] ... [duas picanhas]$\{\phi$, Case$\}$ ...

(From (11-a), via LF-copy(duas picanhas))

c. ... $S_2$[Number, Gender] ... [duas picanhas]$\{\phi$, Case$\}$ ...

(From (11-b), via Agree($S_2$,duas picanhas))

---

3Under an AAT analysis of argument ellipsis in BP, it must be assumed that $v$ does not bear $\phi$-features, or, at the least, that it has the option of not bearing $\phi$-features. This assumption is forced by the fact that BP allows argument ellipsis of direct objects (as will be argued for in detail in the fourth chapter). Under an AAT analysis of (9), then, the DP need not agree with $v$ (or any other head, aside from S) prior to LF-copying. Accordingly, there is indeed a derivation of (9) in which the DP is still active, post-copying.
For this derivation to ultimately converge, it is necessary that the DP’s Case-feature be deleted, subsequent to LF-copying. Let us suppose that this is somehow accomplished. Thus, (11-c) is mapped to (12), with the DP’s Case-feature deleted, somehow or other.

\[(12) \quad \ldots S_2\{\text{Number, Gender}\} \ldots [\text{duas picanhas}]\{\phi, \text{Case}\} \ldots \]

Even with this much assumed, though, the derivation in (10)-(12) will not generate the sentence in (9). The reason for this is as follows. In the derivation just sketched, the DP agrees with \(S_2\) at LF, after the sentence has been spelled out. Hence, agreement between \(S_2\) and the DP will not feed phonology (i.e., it will not produce visible agreement). This is clearly the wrong result, given that the agreement on the secondary predicate *mal passadas* is visible.

Thus, the prediction in (8) does not, in fact, depend upon whether the copied DP is active. Rather, it depends upon the fact that copying takes place at LF.

Of course, there are other instances in which the copied DP agrees in the first conjunct with a functional head that bears a full set of \(\phi\)-features. For example, such is the case when the DP agrees with \(v\) or T. In such instances, the DP will be inactive prior to LF-copying. It will therefore be unable to enter into probe-goal dependencies in the elliptical clause. This being so, visible agreement between the copied DP and a functional head in the elliptical clause will be ruled out for two reasons: (i) the DP is inactive; (ii) agreement at LF does not feed phonology, hence does not produce visible results.

What is important for present purposes is that the prediction in (8) stands. The AAT predicts that the LF-copied argument cannot visibly agree with any functional heads in the elliptical clause. In chapter 4, it will be argued that this prediction is not borne out. BP allows argument ellipsis, even when there is visible agreement between the elided argument and some functional head in the elliptical clause.

Continuing with the main thread, consider instances in which LF-copying copies a DP and there is no visible agreement between the copied DP and any functional head in the elliptical sentence. Under the AAT, the absence of visible agreement between a functional head and a DP can be produced in one of two ways: (i) the functional head does not bear \(\phi\)-features and hence does not probe
the DP; since the functional head and the DP do not abstractly agree, they do not visibly agree; (ii) the functional head does bear \( \phi \)-features and, hence, does probe the DP; the functional head’s \( \phi \)-features are valued but not phonologically realized. Unfortunately, it is often impossible to establish which of these options a given sentence involves. Crucially, the AAT makes testable predictions only with regards to those contexts in which one can establish whether abstract agreement must take place—and specifically, whether it must take place between the copied expression and some functional head in the elliptical clause. Absent some independent criterion with which to establish whether functional heads lacking visible agreement engage in abstract agreement, the AAT fails to make testable predictions in those instances in which a DP is LF-copied into a position not associated with visible agreement.

To elaborate, the AAT predicts the following: when there is visible agreement in the elliptical sentence between a functional head and the elliptical DP, argument ellipsis is ungrammatical. The theory does not, however, generally make any testable predictions in the opposite direction: when there is no visible agreement with the elliptical DP, one generally has no prior expectations as to whether argument ellipsis is allowed. If it turns out that it is, one concludes a posteriori that the DP did not enter into a \( \phi \)-feature probe-goal dependency with any functional head in the elliptical sentence; and if it turns out that it is not, one concludes a posteriori that the DP did enter into one. Both of the two possible outcomes—the availability of argument ellipsis and the unavailability of argument ellipsis—are compatible with the AAT, meaning that when there is no visible agreement, the theory generally makes no testable predictions vis-à-vis the availability of argument ellipsis.

The problem under discussion stems from two sources. First, the AAT utilizes the Activation Condition as a constraint on argument ellipsis. Second, there is no established theory of abstract \( \phi \)-feature agreement, and specifically, no established theory of how to determine whether abstract agreement applies in those instances in which visible agreement is absent. Given the AAT’s utilization of the Activation Condition, argument ellipsis will block whenever the LF-copied argument is called upon to agree with some functional head in the elliptical clause. The predicted blocking effect of ab-
strict agreement, however, can only be tested in those instances in
which one can establish that abstract agreement has applied. In the
absence of visible agreement, one cannot generally do so.

2.3 CHENG (2013)

Cheng (2013) argues that there is no such thing as argument ellipsis,
in the sense of an ellipsis operation that specifically targets argu-
ments. Rather, there is a more general ellipsis operation, in which
the complement of a phase head is elided. The ellipsis of arguments
will result in precisely those instances in which the complement of
a phase head is an argument.

In the system of phases proposed by Chomsky (2000, 2001), C,
v, and possibly D are the phase heads. Cheng (2013) modifies this
system by proposing that the choice of v as a phase head is subject
to parameterization: in some languages, the verbal phase head is v; in
others, it is V.

Choice of V as the verbal phase head makes it possible to elide
arguments, and specifically, arguments merged as the complement
to V. Conversely, choice of v as the verbal phase head makes it
impossible to elide arguments merged as the complement to V. In
Cheng (2013)’s system, ellipsis targets the complements of phase
heads, only; with v the phase head, ellipsis must therefore target
the entire VP, and not V’s sister.

The following examples serve as an illustration. The derivation in
(13) represents a language in which V is the verbal phase head. In
such languages, arguments merged as sister-of-V are complements
to a phase head. They may therefore elide. (English words are used
for illustrative purposes. Note, though, that English does not permit
argument ellipsis.)

(13)  a. John [tDP [v [VP saw [two students]]]]
     b. Bill also [tDP [v [VP saw [two students]]]]

In languages in which v is the verbal phase head, the derivation
above is disallowed, as it involves the elision of an expression that
is not the complement of a phase head. By contrast, the following
derivation is allowed. Here, the complement of the phase head elides. The result is VP-ellipsis, not argument ellipsis.4

(14) a. John [\(vP \ tDP [vP \ v \ [VP \ saw \ [two \ students]]]\]
b. Bill also [\(vP \ tDP [vP \ v \ [VP \ saw \ [two \ students]]]\]

Cheng (2013) additionally argues that some languages allow null topics (as argued originally by Huang (1984)) and that null topics sometimes give rise to readings indistinguishable from argument ellipsis, thus giving the impression that argument ellipsis has taken place.

To illustrate, consider (15), in which the null subject can be construed sloppily.

(15) Japanese
   a. Taroo-wa [zibun-no kodomo-ga eigo-o hanasu
        Taroo-\textsc{top} self-\textsc{gen} child-\textsc{nominative} English-\textsc{acc} speak to] itta
        ‘Taroo said that his child spoke English.’
   b. Hanako-wa [\_ furansugo-o hanasu to] itta
        Hanako-\textsc{top} \_ French-\textsc{acc} speak that said
        ‘Hanako said that her child spoke French.’
        (Cheng (2013), citing Oku (1998))

In principle, argument ellipsis of the subject would generate the sloppy reading.

(16) Hanako-wa [zibun-no kodomo-ga, furansugo-o hanasu to] itta

However, this possibility is ruled out under Cheng (2013)’s system, according to which ellipsis may target complements of phase heads, only. Instead, Cheng (2013) argues that (15-b) contains a null topic, where the null topic is a silent occurrence of zibun-no kodomo-ga ‘self’s child’.5

4If a language has V-to-\(v\) movement, such a language is predicted to allow sentences such as ‘John saw two students, and Bill also saw’, where the elided VP contains the verb’s trace and the DP ‘two students’. Noting that English is often analyzed as a language with V-to-\(v\) movement, Cheng (2013, p. 205, fn. 99) assumes with Lasnik (1999) that VP-ellipsis blocks V-to-\(v\) movement. Thus, the incorrect prediction that English allows such sentences is avoided. Presumably, the assumption that VP-ellipsis blocks V-to-\(v\) movement would have to be extended to other languages in which \(v\) is phasal, since according to Cheng (2013), such languages do not allow argument ellipsis. See the discussion of BP at the end of the section for further commentary.

5If the null topic is indeed a silent occurrence of zibun-no kodomo-ga, as in (17), this would be a case in which ellipsis targets an expression which is not the complement of a phase head, contrary to what Cheng (2013)’s account sanctions elsewhere. Later in his dissertation (p. 238), Cheng (2013) suggests that (at least some instances of) null topics are pro, with the pronoun construed
Under Cheng (2013)’s proposal, then, there is no argument ellipsis, per se—only ellipsis of phase head complements and null topics. With the exception of some passing remarks (pp. 242-3), Cheng (2013) does not discuss why some languages allow null topics and other do not. As to the question of why some languages select v and others select V as the verbal phase head, Cheng (2013) links this to an independent property: whether the language is a DP-language or an NP-language, in the sense of Bošković (2008, 2009, 2012). Briefly: a DP-language is a language in which nominal arguments project all the way up to DP. An NP-language is a language in which nominal arguments project only up to NP.

Thus, the difference between a language that does and one that does not allow argument ellipsis stems from the (un)availability of null topics and from the choice of V versus v as phase head. I will not critique this aspect of Cheng (2013)’s account. Rather, I will focus on what his account has to say about the distribution of argument ellipsis.

Setting aside instances in which a null topic derivation is possible, Cheng (2013)’s account allows argument ellipsis only of complements of V, and only in those languages in which V is a phase head. Argument ellipsis of specifiers is excluded, as is argument ellipsis of arguments situated internal to the complement of the phase head.

Cheng (2013), Prediction #1:
Argument ellipsis of arguments in specifier position is impossible, notwithstanding those cases in which argument ellipsis is derivable through a null topic analysis.

---

as a deep anaphor; thus, perhaps the null topic in (15-b), and null topics more generally under Cheng (2013)’s account, is pro. I will not explore the adequacy of this aspect of Cheng (2013)’s proposal (i.e., the postulation of a null pronoun in topic position, whose purpose is to generate argument ellipsis-like readings), focusing instead on the restriction of ellipsis to complements of phase heads.

For discussion of why DP-languages select v as the phasal head and of why NP-languages select V, see Cheng (2013, pp. 207-215).
Cheng (2013), Prediction #2: Argument ellipsis of arguments situated internal to the complement of a phase head is impossible, notwithstanding those cases in which argument ellipsis is derivable through a null topic analysis.

These predictions will be assessed in the fourth chapter, where it will be shown on the basis of data from BP that both predictions are incorrect.

Before concluding this section, a comment is in order, regarding the use of BP as a means of assessing Cheng (2013)’s account.

According to Bošković (2009) what establishes a language as a DP-language is the presence of definite articles. As illustrated below, BP has definite articles. BP is therefore a DP-language.

\[
\begin{align*}
\text{o homem / a mulher / os homens / as mulheres} \\
\text{the.M man / the.F woman / the.MPL men / the.FPL women} \\
\text{‘the man / the woman / the men / the women’}
\end{align*}
\]

Given that BP is a DP-language, Cheng (2013)’s account would appear to incorrectly predict that BP disallows argument ellipsis. Upon closer inspection, however, it becomes less clear whether Cheng (2013)’s account makes this prediction. Thus, note that BP allows verb-stranding VP-ellipsis (VVPE) (see Cyrino (1994), Cyrino and Matos (2002), Tescari Neto (2012); see also chapter 4).

\[
\begin{align*}
\text{V+v} & \quad \text{VP} \\
\text{V} & \quad \text{v} \\
\end{align*}
\]

Cheng (2013)’s analysis would therefore appear to predict that BP allows argument ellipsis of VP-internal arguments, just in case everything except for the argument raises out of the VP. But recall that Cheng (2013) assumes (for English, at least), that VP-ellipsis blocks V-movement. Thus, either this assumption cannot be extended to BP, or VVPE must involve the ellipsis of some larger constituent—say, vP. In the latter case, one would have to say that although ellipsis of VP blocks V-to-v movement, ellipsis of vP does not. One would also have to say that ellipsis of vP does not block movement of the V+v complex to T.

\[
\begin{align*}
\text{V+v} & \quad \text{VP} \\
\text{v} & \quad \text{VP} \\
\end{align*}
\]

In short, it is not clear, then, just what Cheng (2013)’s account predicts, with respect to BP—and more generally, with respect to
DP languages with VVPE. What is clear, though, is that the distribution of argument ellipsis in BP—specifically, the fact that it allows argument ellipsis of specifiers and of arguments internal to phase head complements (as will be argued in chapter 4)—presents a clear problem for any approach to argument ellipsis that seeks to limit argument ellipsis to phase head complements. This sort of approach is too restrictive, even if null topics are added to the mix. The demonstration that BP allows argument ellipsis in these two environments is therefore important. Even if its implications for Cheng (2013)’s specific analysis are not entirely clear, its broader implications are.

2.4 Semantically-restricted accounts of argument ellipsis

Tomioka (2003) and Bošković (2016, 2017) develop accounts of argument ellipsis according to which expressions of type \(<e,t>\) may not undergo argument ellipsis. In the present section, I sketch these two accounts. In the fourth chapter, I argue that expressions of type \(<e,t>\) can, indeed, undergo argument ellipsis, contrary to what these two accounts predict.

2.4.1 Tomioka (2003)

Japanese allows bare NPs in argument position.

(26) Ken-wa ronbun-o yon-da.
    Ken-top paper-ACC read-PST
    ‘Ken read a paper / the paper.’ (Tomioka, 2003)

Given that NPs denote expressions of type \(<e,t>\), the question arises as to how sentences with NP arguments compose successfully.

Tomioka (2003) proposes that Japanese has two methods for dealing with type \(<e,t>\) denoting arguments. First, an iota operator can
compose with the argument, shifting it to type e. This procedure yields a definite construal—`the paper’, in (26).\(^7\)\(^8\)

(27)  Definite singular via iota
   a. Input LF: \[\text{IP Ken-wa} \ [\text{VP } t_1 \ \text{ronbun-o yonda}]\]
   b. For any assignment \(g\), \(\text{[yonda]}^g = \lambda x.\lambda y.\text{read}(x)(y)\)
   c. \(\text{[ronbun-o]}^g = \lambda z.\text{paper}(z)\)
   d. \(t(\text{[ronbun-o]}^g) = t_1.\text{paper}(x)\)
   e. \(\text{[VP]}^g = \text{[yonda]}^g(t(\text{[ronbun-o]}^g)(t_1)^g)\)
   f. \(= \text{read}(t_1.\text{paper}(x))(g(1))\)
   g. \(\text{[IP]}^g = \lambda z.\text{[VP]}^{g/1}(\text{Ken})\)
   h. \(= \text{read}(t_1.\text{paper}(x))(\text{Ken})\)

Second, the argument can adjoin to the VP and compose with it via predicate modification. The free variables are then bound off by existential closure. This procedure results in an indefinite construal for the NP.

(28)  Indefinite singular via object NP-raising and \(\exists\)-closure
   a. Input LF: \[\text{IP Ken-wa}_2 \ [\text{VP}_3 \ \exists \ [\text{VP}_2 \ \text{ronbun-o}_1 \ [\text{VP}_1 \ t_2 \ t_1 \ \text{yonda}]][]\]
   b. For any assignment \(g\), \(\text{[yonda]}^g = \lambda x.\lambda y.\text{read}(x)(y)\)
   c. \(\text{[VP}_1]^g = \text{[yonda]}^g(t_1)^g(t_2)^g = \text{read}(g(1))(g(2))\)
   d. \(\text{[VP}_2]^g = \lambda x.\lambda y.\text{[ronbun-o]}^g(x) \& \lambda y.\text{[VP}_1]^{g/1}(x)\)
   e. \(= \lambda x.\text{paper}(x) \& \text{read}(x)(g(2))\)
   f. \(\text{[VP}_3]^g = \lambda x.\text{paper}(x) \& \text{read}(x)(g(2))\)
   g. \(\text{[IP]}^g = \lambda z.\text{[VP}_3]^{g/2}(\text{Ken})\)
   h. \(= \exists x.\text{paper}(x) \& \text{read}(x)(\text{Ken})\)

In short, Japanese permits NP arguments because it has semantic operations that enable such arguments to successfully compose with their predicates. One of these operations yields a definite construal; the other yields an indefinite construal.

Having proposed that Japanese has mechanisms for interpreting arguments of type \(<e,t>\), Tomioka (2003) demonstrates that that these mechanisms, in conjunction with one further proposal, captures the range of interpretations to which Japanese null arguments give rise.

Tomioka (2003)’s additional proposal is that null pronouns in Japanese are of type \(<e,t>\). More accurately, the assignment function may assign denotations of type \(<e,t>\) to null pronouns in

---

\(^7\)In addition to a singular definite construal, bare NPs can also be interpreted as plural definites; e.g., ‘the papers’. Similarly, a plural indefinite construal is likewise possible, in addition to a singular indefinite construal; e.g., ‘papers’. Tomioka (2003) does not discuss how the plural construals are generated. See Tomioka (2003, p. 338, n. 6) for brief discussion.

\(^8\)The derivations in (27), (28), (31), and (34) are reproduced from Tomioka (2003) with minor changes.
Japanese. If the strategy of predicate modification plus existential closure is employed, the null pronoun produces an indefinite reading.\(^9\)

(29) Ken-wa kuruma-o kat-ta. Erika-mo pro kat-ta.
Ken-TOP car-ACC buy-PRF. Erika-also buy-PRF.
‘Ken bought a car. Erika also bought a car.’ (Tomioka, 2003)

(30) A partial function g from indices to denotations (of any type) is a (variable) assignment iff it fulfills the following condition:
For any number n and type \( \tau \) such that \( <n,\tau> \in \text{dom}(g) \), \( g(n,\tau) \in D_\tau \). (Heim and Kratzer, 1998, p. 292)

(31) a. Via pro-raising and \( \exists \)-closure:
\[ \exists [\text{VP } \text{pro}_{<3, \text{et}>}[\text{VP } t_{<2, e}> \text{t}_{<3, e}> \text{katta}]] (t_{<2, e}> \text{is the subject trace}) \]
b. \[ [t_{<2, e>} t_{<3, e>}, \text{katta}]^g = \text{bought}(g(<3,e>))(g(<2,e>)) \]
c. Assume g:= \[ <3, \text{et}> \rightarrow \lambda y. \text{car}(y) \]
d. \[ [\text{pro}_{<3, \text{et}>}]^g = \lambda y. \text{car}(y) \]
e. \[ [[\text{pro}_{<3, \text{et}>} [t_{<2, e>} t_{<3, e>}, \text{katta}]^g]]^g \]
f. \[ = \lambda x. [[[\text{pro}_{<3, \text{et}>}]^g(x)] \& \lambda z. [t_{<2, e>} t_{<3, e>}, \text{katta}]^g(x) ] \]
g. \[ \lambda x. [\lambda y. \text{car}(y)(x) \& \lambda z. \text{bought}(z)(g(<2,e>))(x)](x) \]
h. \[ \lambda x. [\text{car}(x) \& \text{bought}(x)(g(<2,e>)))](x) \]
i. \[ \exists([[\text{pro}_{<3, \text{et}>} [t_{<2, e>} t_{<3, e>}, \text{katta}] ]]^g) \]
j. \[ = \exists x [\text{car}(x) \& \text{bought}(x)(g(<2,e>))] \]

If the iota operator is used, the null pronoun produces sloppy readings.

(32) Ken-wa zibun-no uti-o utta. Erika-mo pro utta.
Ken-TOP self-GEN house-ACC sold Erika-also sold
‘Ken sold his house. Erika sold her house, too.’

(33) For any g, and natural number i,j, \[ [\text{pro}_{ij}]^g = g(i)(g(j)) \]

(34) a. The input LF: \[ [\text{IP } \text{Erika}_2 [2 \text{ pro}_{3}(2) \text{ sold }]] \]
b. Assume g:= \[ [3 \rightarrow \lambda x. \lambda y. \text{house}(y)(x)] \]
c. \[ [\text{pro}_{3}(2)]^g = \lambda y. \text{house}(y)(g(2)) \]
d. \[ u([\text{pro}_{3}(2)]^g) \]
e. \[ = \text{ty.}[\text{house}(y)(g(2))] \]
f. \[ [\text{VP}]^g = \text{sold}(\text{ty.}[\text{house}(y)(g(2))])(g(2)) \]
g. \[ [\text{IP}]^g = \lambda x. [\text{VP }]^{g/2} \]
h. \[ = \lambda x. \text{sold}(\text{ty.}[\text{house}(y)(x)])(x)(\text{Erika}) \]
i. \[ = \text{sold}(\text{ty.}[\text{house}(y)(\text{Erika})])(\text{Erika}) \]

Note that argument ellipsis would likewise produce indefinite readings and sloppy readings. The indefinite reading in (29), for

---

\(^9\)The final two steps in the derivation, not given in (31), are as follows: (i) the subject’s trace is abstracted over; (ii) the subject composes with the predicate abstract. The result of these two steps is as follows:
[\exists x [\text{car}(x) \& \text{bought}(x)(\text{Erika})]]
example, would result from ellipsis of *kuruma-o* ‘car-ACC’, and the sloppy reading in (32) would be obtained by eliding *zibun-no uti-o* ‘self-GEN house-ACC’. Tomioka (2003)’s analysis thus provides an alternative method for obtaining these two reading.

That being said, it is not the case that Tomioka (2003)’s analysis is empirically indistinguishable from an argument ellipsis approach. Under Tomioka (2003)’s approach, the null category is of type *<e,t>*. It denotes a predicate, which is either shifted to type e (yielding definite and sloppy readings), or the variable it introduces is existentially closed (yielding indefinite readings). It does not denote a generalized quantifier (i.e., it is not of type *<et,t>*).

If argument ellipsis is analyzed in Tomioka (2003)’s terms, the expectation is that null arguments derived via argument ellipsis (read, null arguments generated via *pro*<e,t>*) should never denote expressions of type *<et,t>*. By comparison, if argument ellipsis is generated by actual ellipsis of an argument, no such expectation arises. Of course, one may develop an analysis of argument ellipsis in which argument ellipsis is prevented from targeting expressions of type *<et,t>*; indeed, such is the approach Bošković (2016, 2017) takes. But analyses of argument ellipsis need not take such an approach; a ‘no ellipsis of type *<et,t>*’ ban—whether correct or incorrect—is not an intrinsic component of such analyses. By contrast, Tomioka (2003)’s analysis, by its very nature, disallows argument ellipsis of expressions of type *<et,t>*.

What types of arguments denote generalized quantifiers? QPs headed by a strong determiner do (Reinhart, 1997). Hence, if a language allows null arguments with such a denotation, the null arguments are generated under argument ellipsis, not as *pro*<e,t>*. QPs headed by certain weak determiners also denote generalized quantifiers. Specifically, indefinites headed by a modified numeral do (e.g., ‘more than three’, ‘less than seven’, ‘exactly four’) (Reinhart, 1997). Evidence that such indefinites should be analyzed as generalized quantifiers comes from the following consideration. Indefinites headed by a modified numeral, unlike singular and (non-modified) plural indefinites, do not take extra-wide (i.e., extra-clausal) existential scope.

(35) a. If less than four relatives of mine die, I will inherit a house.
Impossible (or highly marked) reading:
There are less than four relatives of mine such that if they all die, I will inherit a house.
b. If some woman comes to the party, John will be glad.
Possible reading:
There is some woman such that if she comes to the party, John will be glad.
c. If three relatives of mine die, I will inherit a house.
Possible reading:
There are three relatives of mine such that if they all die, I will inherit a house.

(Winter, 1997)

Singular and plural indefinites introduce a free variable, which must be existentially bound. Since the existential binder can be introduced anywhere in the sentence (or, at the least, at the very top of the sentence), the indefinite can take existential scope over the entire sentence. If modified numerical indefinites were analyzed in the same manner, they would be able to do so, as well. On the other hand, if they are generalized quantifiers, their scope (both existential and distributive) is clause-bound, given that QR (or some analogue thereof) is clause-bound.\(^\text{10}\)

In short, Tomioka (2003)’s account of argument ellipsis makes the following prediction.

\[\text{(36) Tomioka (2003), Prediction:}\]
If argument ellipsis (in a given language) is to be analyzed in terms of \(\text{pro}_{<e,t>}\), argument ellipsis (in that language) is semantically restricted: the elided argument (i.e., the null pronoun) can denote an expression of type \(e\) (via the iota operation) or of type \(<e,t>\), but not of type \(<e,t,t>\).

Tomioka (2003)’s account is thus more restrictive than traditional accounts of argument ellipsis, in that it disallows interpretations allowed by more traditional accounts. In the fourth chapter, I will demonstrate that argument ellipsis in BP can indeed target expressions of type \(<e,t,t>\). In BP, then, traditional argument ellipsis is required.

2.4.2 Bošković (2016, 2017)

Bošković (2016, 2017)’s account of argument ellipsis is similar to Tomioka (2003)’s in many respects. Unlike Tomioka (2003), how-

\[^{10}\text{For further arguments that modified numerals are generalized quantifiers and not type }<e,t>\text{-denoting expressions, see Reinhart (1997, pp. 383-388).}\]

The details of Bošković (2016, 2017)’s analysis run as follows. First, LF-copying may only target expressions of type \(<e,t>\). Moreover, LF-copying is, in principle, possible in all languages, (though particular languages may disallow it—some of the times, or always—for language-particular reasons). Second, the Activation Condition holds in all languages. Third, languages differ from one another in the manner proposed by proponents of the AAT; i.e., in some languages, the Case-“assigning” heads (e.g., \(T\) and \(v\)) enter the derivation with uninterpretable \(\phi\)-features; in other languages, some or all of these heads enter the derivation without \(\phi\)-features. Fourth and finally, the size of argumental nominal phrases is subject to cross-linguistic variation: in some languages, argumental nominal phrases are DPs (and hence denote expressions of type \(e\) and type \(<et,t>\)); in other languages, they are NPs (and hence denote expressions of type \(<e,t>\)).

Bošković (2016, 2017) additionally proposes that argument ellipsis is LF-copying, not PF-deletion. The combination of this proposal and the proposal that LF-copying only targets expressions of type \(<e,t>\) derives the following generalization, due to Cheng (2013).

\[
\text{(37) Argument ellipsis is available only in NP languages.}^{12}
\]

In DP languages, arguments are not of type \(<e,t>\). Since argument ellipsis is LF-copying, which is, in turn, restricted to expressions of type \(<e,t>\), arguments in DP languages are unable to undergo argument ellipsis. In NP languages, on the other hand, arguments are of type \(<e,t>\). Arguments may therefore undergo argument ellipsis, provided neither the Activation Condition nor any language-particular constraint is violated in the process.\(^{13,14}\)

\(^{11}\) According to Bošković (2016, 2017), NP languages, but not DP languages, have a type-shifting operation that shifts NP arguments to type \(e\). Bošković (2016, 2017) does not discuss the existential closure option that was discussed above, but presumably, one would want to say that NP languages allow this option, as well.

\(^{12}\) This is a one-way entailment. DP languages never allow argument ellipsis. NP languages may, but need not.

\(^{13}\) Note that the type shifting iota operation applies in the semantics proper, after LF. When LF-copying applies, the NP argument is still of type \(<e,t>\), hence eligible for undergoing LF-copying.

\(^{14}\) Based on my reading of Bošković (2008, 2012, 2016, 2017), it is not clear to me whether all, or only some, arguments in NP languages are of type \(<e,t>\). (For example, some could be \(<e,t>\) while the others are \(<et,t>\).) If only some are of type \(<e,t>\), Bošković (2016, 2017)’s account will allow argument ellipsis
Note, in passing, that the generalization in (37) is too strong. BP is a DP-language and it allows argument ellipsis. The availability of argument ellipsis in BP thus falls outside of the scope of Bošković (2016, 2017)’s account.

Returning to the main thread, according to Bošković (2016, 2017), argument ellipsis is NP-ellipsis. In those languages in which NPs may function as arguments, argument ellipsis will be possible. In those in which they may not, argument ellipsis is out.

As for the ability of an NP to function as an argument, this depends upon the presence of certain semantic operations. Crucially, these operations (the iota operation and existential closure) do not map NPs to type \(<e,t>\). Hence, his account, like Tomioka (2003)’s, predicts that argument ellipsis does not target expressions of type \(<e,t>\).

(38) Bošković (2016, 2017), Prediction:
Argument ellipsis does not target expressions of type \(<e,t>\).
A NOVEL ACCOUNT OF THE DISTRIBUTION OF ARGUMENT ELLIPSIS

3.1 INTRODUCTION

According to the account of argument ellipsis developed in this thesis, the distribution of argument ellipsis in a given language is tied to whether the language in question is VO or OV. In VO languages with argument ellipsis, arguments can elide only if they are immediately preceded by a verb. In OV languages, arguments can elide only if they are in [Spec, VP] or in the sister-to-V position. At first sight, the present account would seem to predict that OV languages never allow argument ellipsis of external arguments, an incorrect prediction. Thus, although it is indeed true that some OV languages with argument ellipsis disallow ellipsis of external arguments (e.g., Bangla, Turkish), others do allow argument ellipsis of external arguments (e.g., Japanese, Mongolian).

The present account adopts certain aspects of the model developed in Neeleman and Weerman (1999). The critical component of this model is its treatment of external arguments. In this system, there are two positions within which an external argument may be base-generated: (i) as an adjunct to VP; (ii) as the specifier of an upper VP-shell.\(^1\)

\[(1)\]

\[
\begin{array}{c}
\text{VP} \\
\text{EA} & \text{VP} \\
\text{(IA)} & \text{V}
\end{array}
\]

\(^1\)Note that the higher shell is not headed by \(v\). Rather, it is headed by the same verb that heads the lower shell. In Neeleman and Weerman (1999)’s system, VP-shells are formed by merging the verb with its own maximal projection. The verb reprojects, projecting a second VP. See Neeleman and Weerman (1999, pp. 29-30) for arguments in favor of this view of VP-shell formation and against the existence of \(v\).

\(^2\)Here and below, I indicate movement dependencies through coindexation.
In conjunction with this aspect of Neeleman and Weerman (1999)’s system, the present account of argument ellipsis makes the surprising, but correct as I will argue, prediction that argument ellipsis of external arguments depends upon the position within which the external argument is base-generated. Recall the current account’s claim that arguments can elide only if they are in [Spec, VP] or the sister-of-V position. Thus, according to the present account, OV languages with argument ellipsis allow external arguments to elide if they are base-generated in the specifier position, but not if they are base-generated as adjunct-to-VP.\(^3\) For reasons detailed below, external arguments in languages such as Japanese and Mongolian are base-generated in the specifier position. Hence, such languages are correctly predicted to allow argument ellipsis of external arguments. Languages such as Bangla and Turkish base-generate external arguments as adjuncts to VP, hence the correct prediction that such languages disallow argument ellipsis of external arguments.

Before presenting the present thesis’s account of argument ellipsis, it is therefore necessary to introduce certain aspects of Neeleman and Weerman (1999)’s system. Minimally, it is necessary to present those aspects of their system that play a role in determining where a given external argument is base-generated. Sections 3.3 and 3.4 are devoted to this task. The length of these two sections is due to the following point of consideration. The principles in Neeleman and Weerman (1999)’s system that determine where a given external argument is base-generated are, for the most part, non-main stream. The discussion of each of these principles thus requires some attention, as the reader may not be familiar with them.

The present account also assumes certain aspects of Ackema and Neeleman (2004)’s model of the syntax-phonology interface. Section

\(^3\)The implicit assumption here is that arguments base-generated as adjuncts to VP cannot raise to [Spec, VP]. See subsection 3.4.3 for arguments in support of this assumption.
3.2 is a brief presentation of this model, with emphasis only on those aspects that are of relevance here.

Section 3.5 presents the account of argument ellipsis.

3.2 ACKEMA AND NEELEMAN (2004)

The interface between syntax and phonology consists of a set of processes, which apply sequentially in the following order (Ackema and Neeleman, 2004, pp. 258-9).

(3) a. Linearization of syntactic terminals
   b. Initial prosodic phrasing, on the basis of syntactic information
   c. Application of checking rules
   d. Deletion of copies
   e. Application of context-sensitive allomorphy rules
   f. Spell-out of terminals

In the first step in the mapping to phonology, linear order is introduced into the hierarchical structures generated by the syntax. Note that this process does not flatten the syntactic structure; i.e., it does not remove hierarchical information. Rather, it simply introduces linear order (i.e., precedence relations) into the hierarchical tree, maintaining the hierarchical information already present therein.

For example, the structure in (4) would be mapped to the structure in (5).

(4) \{John, \{was, \{seen, John\}\}\}

(5)

\[
\begin{array}{c}
\text{John} \\
\text{was} \\
\text{seen} \\
\end{array}
\]

Note, also, that unlike in more standard conceptions of linearization (e.g., Nunes (2004)), the deletion of copies does not precede linearization.\(^4\)\(^5\)

---

\(^4\) Ackema and Neeleman (2004) do not provide any details on the principles that determine how syntactic structures are linearized. Earlier work by Neeleman (i.e., Neeleman and Weerman, 1999) does contain certain principles, and it seems that these principles could be incorporated rather straightforwardly into Ackema and Neeleman (2004)’s model. I will not dwell on this issue, though. I will assume, without discussion, that a set of principles that ensure a correct linearization can be formulated, bearing in mind that the success of the model formulated in Ackema and Neeleman (2004)—and hence, of any account adopting this model—ultimately depends in part on the adequacy (both empirical and conceptual) of these principles.

\(^5\) Ackema and Neeleman (2004) assume the existence of traces, rather than copies. I have modified their proposal in accordance with the Copy Theory of
The linearized structure is then mapped into a set of nested prosodic phrases (on which, see Nespor and Vogel (1986) and subsequent work in the Prosodic Phonology literature). As to the third mapping principle, Ackema and Neeleman (2004) argue that some (though not all) checking rules take place at the syntax-phonology interface, rather than in the syntax proper. Examples of such checking rules include complementizer agreement in Germanic and first conjunct agreement in Arabic. The next step is the deletion of copies. The remaining two principles involve the application of various allomorphy rules (e.g., rules which delete one or more morphosyntactic features) and the spell-out of terminals.

With respect to the account of argument ellipsis developed below, the following features of Ackema and Neeleman (2004)’s system are relevant. First, the output of the step in (3-a) is a phrase structure tree containing information about linear order. Thus, two types of information are defined here: (i) information about syntactic structure (e.g., maximal projection, c-command, VP); (ii) information about linear order (e.g., precedence, adjacency). Second, copies of moved items are present at the output of step (3-a); they have not yet been deleted.

3.3 Neeleman and Weerman (1999), Part I

In Neeleman and Weerman (1999)’s model, thematic relations are not established in the syntax, itself. They are established at the syntax-semantics interface by means of mapping principles. These principles map syntactic arguments to thematic roles (e.g., Agent, Theme).

The principles must, therefore, be able to distinguish syntactic arguments from non-arguments. For instance, they must be able to distinguish John and Mary from kissed and passionately. Only the former are mapped to thematic roles.

(6) John kissed Mary passionately.

In addition, the principles must ensure that each syntactic argument is mapped to the appropriate thematic role. In the example
above, for instance, they must ensure that John is mapped to Agent and Mary, to Theme.

Finally, the mapping principles must be sensitive to the fact that the establishment of thematic relations is subject to structural constraints. For instance, the argument must c-command the predicate.\footnote{In the following example, coindexation signifies subject-predicate relations, not movement.}

\begin{enumerate}[a.]
  \item dat [Jan] [Marie [naakt ontmoette]]
  \item dat [Jan] [Marie [naakt ontmoette]]
  \item dat [Jan] [naakt [Marie ontmoette]]
  \item *dat [Jan [naakt [Marie ontmoette]]]
\end{enumerate}

\textit{'that Jan met Mary nude.'}

The present section discusses these issues, beginning with structural constraints on the mapping principles (subsection 3.3.1). It then discusses how the mapping principles identify arguments from non-arguments (subsection 3.3.2) and how they ensure that arguments are mapped to an appropriate thematic role (subsection 3.3.3).

3.3.1 \textit{Thematic Mapping and External Arguments}

Neeleman and Weerman (1999, p. 20) propose the following principle, which is a structural constraint on the establishment of thematic relations.\footnote{\textit{\`{c}-commands if the first node dominating $\alpha$ also dominates $\beta$. $\alpha$ \textit{m-commands} $\beta$ if the first maximal projection dominating $\alpha$ also dominates $\beta$. We assume that segments as well as categories count as dominating nodes.\footnote{(Neeleman and Weerman, 1999, p.20, fn.1)}}}

\begin{enumerate}[a.]
  \item Thematic Mapping
  \begin{enumerate}[a.]
    \item $\alpha$ \textit{c-commands} $\pi$, and
    \item $\pi$ \textit{m-commands} $\alpha$.
  \end{enumerate}
\end{enumerate}

Among other things, this principle restricts the range of positions in which an external argument may be base-generated. In what follows, this particular issue will be discussed, as it plays a central role in the present study’s account of argument ellipsis.

Following Williams (1980, 1981), Neeleman and Weerman (1999) assume that a lexical head’s thematic grid may contain a unique
thematic role, designated as external. This role must be assigned to an argument outside of the head’s maximal projection.

As in Williams (1980, 1981)’s system, the assigner of the external thematic role is not the lexical head itself, but the head’s maximal projection. Stated in terms of the mapping principle in (8), the predicate in the definition above is the lexical head’s maximal projection when the thematic role is an external role. For instance, with respect to the verb’s external thematic role, the predicate is the entire VP, not the V.

(9) [John [VP loves Mary]]

The principle in (8) determines the range of positions in which an external argument may be base-generated. An external argument may be generated as an adjunct to VP. In this position, it c-commands, and is m-commanded, by the VP.8,9

(10) \[
\begin{array}{c}
\text{VP} \\
\text{EA} & \text{VP} \\
(\text{IA}) & \text{V}
\end{array}
\]

In principle, one would expect that an external argument could be generated in [Spec, vP].

(11) \[
\begin{array}{c}
v\text{P} \\
v' \\
v \\
\text{VP} \\
(\text{IA}) & \text{V}
\end{array}
\]

However, Neeleman and Weerman (1999) reject the existence of v, as noted at the chapter’s outset. Instead, they argue that VP-shells are created by merging the verb with its own maximal projection. The verb reprojects, projecting a second VP structure.

---

8 Recall that segments count as dominating nodes.
9 I will generally use head-final structures in this chapter. This is because Neeleman and Weerman (1999)’s system is relevant to my account of argument ellipsis in OV languages, and not to my account of argument ellipsis in VO languages.
In a VP-shell structure, an external argument can be base-generated in the specifier position of the upper shell. This position c-commands, and is m-commanded by, the lower VP node. Hence, the argument can be associated with the VP’s external thematic role.\(^\text{10}\)

External arguments may also be base-generated in [Spec, IP].

They cannot be generated any higher, however.

Nor can they be generated within the lowest VP shell (or within the single VP, when there is only one).

---

\(^\text{10}\)Both the lower VP node and the higher VP node are maximal projections of the verb. Hence, both qualify as ‘predicate’ for the Thematic Mapping principle. In principle, then, an external argument should be able to be base-generated as an adjunct to the upper VP-shell. This possibility is ruled out by independent aspects of Neeleman and Weerman (1999)’s system. Similarly so for the indefinitely many additional positions that would be generated if VP-shell formation could apply iteratively. I will not discuss how Neeleman and Weerman (1999)’s system rules out these additional possibilities, as it would take me too far afield.
In sum, external arguments can be merged in three positions: (i) adjunct to VP, (ii) specifier of an upper VP-shell, (iii) [Spec, IP].

In the account of argument ellipsis developed below, a distinction is drawn between possibility (ii) and possibilities (i) and (iii). According to this account, OV languages with argument ellipsis allow argument ellipsis of external arguments only if the latter are base-generated as specifiers of an upper VP-shell. For the purposes of my account, there is no difference between a system in which all three possibilities are sanctioned and one in which either possibility (i) or possibility (iii) is rejected. I will therefore ignore possibility (iii), which will allow me to maintain the VP-internal hypothesis, albeit in a non-conventional form. Henceforth, I will assume that there are only two positions in which an external argument can be base-generated: adjunct to VP and specifier of an upper VP-shell.

3.3.2 Visibility, Dependent Marking, and Head Marking

As noted out the outset of the section, the mapping principles responsible for pairing syntactic arguments with thematic roles must be able to distinguish arguments from non-arguments. To this end, Neeleman and Weerman (1999, p. 61) propose the following condition.

\[(16) \text{Visibility}\]

A thematic relation between an argument \(\alpha\) and a predicate \(\pi\) can be established if either \(\alpha\) is marked as an argument or \(\pi\) is marked as a predicate.

In terms of Nichols (1986)’s terminology, adopted by Neeleman and Weerman (1999), the establishment of thematic relations depends on ‘dependent marking’ and ‘head marking’. Either the dependent (i.e., the argument) is marked as a dependent, or the predicate (i.e., the head) is marked as a predicate.\(^{11}\)

\(^{11}\)Recall that in Neeleman and Weerman (1999)’s system, the predicate is the lexical head’s maximal projection when the thematic relation is external, and it is the lexical head, itself, when the thematic relation is internal. The term ‘head marking’ is potentially confusing, since in the case of external relations,
In Neeleman and Weerman (1999)’s system, a dependent is marked as a dependent by means of a case shell. Arguments that merge with a case shell thus satisfy Visibility.

\[(17)\quad \text{CASEP} \]
\[
\text{DP} \quad \text{CASE}
\]

More specifically, Neeleman and Weerman (1999) propose that case shells carry a feature, which identifies the case shell’s sister as an argument. This feature is called \textit{nop}, for ‘nominal predicate’.

We propose that case shells are uniformly marked \texttt{<\textit{nop}>}.

The presence of this feature is the minimal way of satisfying the visibility condition in \[(16)\]. It marks an argument as such, given that it identifies the categorical make-up of the predicate with which it is combined. Thus, in order to fulfill its argument-marking function, a case shell must minimally be a projection of \texttt{<\textit{nop}>} (Neeleman and Weerman, 1999, p. 89).

In short, dependent marking is achieved by merging a case shell bearing the feature \textit{nop} with an argument.

As to how head marking is achieved, a short discussion into the nature of lexical entries is first required.

Recall that a lexical head’s thematic grid may contain a single thematic role which is designated as external. One way to encode this is by saying that a thematic grid is subdivided into two parts, with one part listing the thematic role(s) which is/are to be associated with internal arguments and the other part, listing the thematic role which is to be associated with the external argument. In this connection, Neeleman and Weerman (1999) note that thematic roles are not unique in this respect; other properties may be specified as internal versus external. As such, Neeleman and Weerman (1999) propose that lexical entries are divided into two parts,
an internal grid, listing all the properties specified as internal, and
an external grid, listing all the properties specified as external.\(^a\)

\[(18)\]
\[
\text{expect}
\]
\[
\langle +V,-N \rangle
\]
\[
\left( \ldots \theta \ldots \left( \ldots \theta \ldots \right) \right)
\]

When a complex verb is formed, the information carried by the
affix is copied into the external portion or the internal portion of
the verb’s grid. For instance, agreement information carried by the
Portuguese affix -\text{em} ‘3PL’ is copied into the verb’s external grid,
reflecting the fact that the verb agrees with its external argument,
not its internal argument.\(^b\)

\[(19)\] aprovar-em ‘approve.INF-3PL’

\[(20)\]
\[
\text{approvarem}(\theta, <3,Pl>(\theta))
\]
\[
\text{approvar}(\theta(\theta)) \quad \text{em}_{<3,Pl>}
\]

In a language with object agreement, the information borne by
the agreement affix is copied into the internal portion of the verb’s
grid.

In addition to agreement affixes, the information borne by tense,
mood, and aspectual affixes is likewise copied into the verb’s grid.
For instance, the past tense information contributed by the affix -\text{ed}
is copied into the verb’s external grid.

\[(21)\]
\[
\text{expected}(\theta, <PST>(\theta))
\]
\[
\text{expect}(\theta(\theta)) \quad \text{ed}_{<PST>}
\]

For semantic reasons, past tense information must be copied into
the external grid. As Neeleman and Weerman (1999) explain it:

Past tense information must be copied into the verb’s ex-
ternal domain for semantic reasons: tense is a property
assigned to propositions, and must hence take scope over
the clause. This would be impossible if it were copied
into the verb’s internal domain. By the same logic, there

\(^a\) The internal grid is distinguished from the external grid by embedding the
former in the latter.

\(^b\) When an internal argument is the subject (as it is when the verb is un-
accusative or passive), Portuguese nonetheless exhibits subject-verb agreement.
For reasons of presentational focus, I will not go into how Neeleman and Weer-
man (1999)’s account handles subject-verb agreement in such cases. For related
discussion, though, see the remarks at the end of the present subsection.
are affixes whose features must be copied into the internal domain, as they take scope over VP, but not over any larger constituent. An example may be aspectual affixes. Finally, there are affixes whose features are compatible with both copying to the internal and to the external domain. Affixes carrying person and number features are of this type, because person and number are not scope-taking features. Hence, it is a matter of parametric variation to which position in the verbal grid person and number features are copied. Copying to the external domain leads to subject agreement, whereas object agreement is a result of copying to the internal domain.

(Neeleman and Weerman, 1999, p. 183)

Returning now to the issue of head marking, recall that for the purposes of Thematic Mapping and of Visibility (repeated below), the term ‘predicate’ is ambiguous. When a thematic relation between an external argument and a predicate is at stake, the predicate is the lexical head’s maximal projection—for the cases that concern us here, the VP. When, by contrast, a thematic relation between an internal argument and a predicate is at question, the predicate is the lexical head itself—the V, for present concerns.

(22)  **Thematic Mapping**
An argument $\alpha$ can be associated with a thematic role of a predicate $\pi$ if and only if
a. $\alpha$ c-commands $\pi$, and
b. $\pi$ m-commands $\alpha$.

(23)  **Visibility**
A thematic relation between an argument $\alpha$ and a predicate $\pi$ can be established if either $\alpha$ is marked as an argument or $\pi$ is marked as a predicate.

With this in place, head marking can be defined. Note that these are preliminary definitions, to be revised below.

(24)  a. A predicate, qua external argument assigner (i.e., VP), is head marked if a feature in the predicate’s external grid is spelled out.
b. A predicate, qua internal argument assigner (i.e., V), is head marked if a feature in the predicate’s internal grid is spelled out.
For example, a VP headed by the verb *expected* is head marked, given that a feature in its external grid, namely \(<\text{pst}\>\), is spelled out by the affix *-ed*.

Caveat lector:

[T]he notion of realization by an affix does not mean that a head-marking feature must literally have an overt reflex. Just as for case, such realization is a paradigmatic notion: a feature is realized if there is a paradigm that encodes it. For example, the present tense of *expect* is not spelled out, but it is part of a paradigm encoding tense distinctions. In this paradigm \( [<\text{prs}>] \) is unmarked with respect to \( [<\text{pst}>] \) and it may hence take the form of a covert affix. Consequently, *expect*, like *expected*, counts as head-marked. (Neeleman and Weerman, 1999, pp. 183-184)

Continuing, the preliminary definition given above needs revising, as it suggests that the spell out of some feature in the predicate’s external/internal grid is both sufficient and necessary for head marking status. True, it is necessary. However, it is not sufficient. For instance, there are languages in which the verb agrees with its external argument and the VP is nonetheless not considered head marked, thus requiring the external argument to be dependent marked.\(^{15}\) Not only must a feature be spelled out; it must also be designated as the feature the spell out of which results in head marking. The final definition of head marking is therefore as follows:

(25) **Head Marking**

An external/internal \( \emptyset \)-role assigner is head-marked if a designated feature in the external/internal domain of its grid is realized by an affix.

(Neeleman and Weerman, 1999, p. 188)

Note that head marking and dependent marking are mutually exclusive. If an argument is identified as an argument through a case shell, the predicate that is thematically associated with it will

\(^{15}\) Neeleman and Weerman (1999) argue that Arabic is such a language; see pp. 195-202 in their text for arguments for the dependent-marked status of external arguments in Arabic.
not be head marked. Thus, in the case of an external argument bearing a case shell, the VP will not be head marked; in the case of an internal argument bearing a case shell, V will not be head marked. Conversely, if a predicate is head marked, the thematically associated argument will not bear a case shell. Thus, head marked V precludes case marking on an internal argument, and head marked VP precludes case marking on the external argument.

The mutual exclusivity of the two forms of marking is expressed by the following condition.

(26) **Uniqueness of Marking**
   No thematic relation is marked more than once.
   
   (Neeleman and Weerman, 1999, p. 201)

Before concluding the subsection, a remark on subjects of passives and unaccusatives is in order. In the standard analysis of such subjects, these subjects are base-generated VP-internally, where they receive an internal θ-role from the verb. Neeleman and Weerman (1999) argue against this sort of analysis and in favor of an alternative. Under their analysis, a null operator, and not the subject itself, composes with the verb. The operator raises to [Spec, VP] and externalizes the verb’s internal thematic role. This role is then associated with the subject, which either adjoins to the VP or merges in the specifier of an upper VP-shell. The former option is illustrated below.

(27) \[ VP \ IA [ VP Op_i [ V Op_i V ]] ]

The externalization of the verb’s internal role involves the creation of an external grid. Thus, internal arguments that have been ‘promoted’ to subject satisfy Visibility in the same way that external arguments do. If a designated feature in the verb’s external domain is realized, the subject satisfies Visibility. If no such feature is realized, Visibility must be satisfied through dependent marking.

It should be noted that Neeleman and Weerman (1999)’s system is compatible with the existence of languages in which subjects of passives and unaccusatives surface as sister-to-V.

(28) Brazilian Portuguese
   a. Congelou a água.
   froze the water
   ‘The water froze.’
b. A água congelou.
the water froze
'The water froze.' (Silva, 2001)

In (28-a), the subject is base-generated in sister-of-V position, and it remains there. In (28-b), a null operator is base-generated in this position, and it raises to [Spec, VP]. The subject then adjoins to the VP.

Finally, note that instances of subject-to-subject raising are also analyzed in terms of null operator movement.

(29) \[ \text{VP John [VP Op_i seems [ Op_i to be here]]} \]

The foregoing discussion of derived subjects omits various details, for which I refer the reader to Neeleman and Weerman (1999), itself. The purpose of this discussion was not, however, to discuss this topic in any real depth. Rather, it was geared towards a particular aspect of the account of argument ellipsis presented in section 3.5. Specifically, the present discussion allows me to set up the following terminology: the term ‘external subjects’ refers to arguments base-generated in either the specifier of an upper VP-shell or as an adjunct to VP. The term generalizes over external arguments as well as derived subjects; e.g., the subject in (28-b) and (29) but not the subject in (28-a). Correspondingly, the term ‘internal argument’ refers to those arguments that are base-generated as sisters-to-V or in the specifier of a lower VP-shell; i.e., direct objects, indirect objects, and subjects such as the subject in (28-a).\(^{16}\)

3.3.3 Case Features, Case Paradigms, and Thematic Roles

The mapping principles must also ensure that each argument is mapped to the appropriate thematic role. For example, ‘John’, ‘Mary’, and ‘a book’ must be mapped to Agent, Goal, and Theme, respectively.

\(^{16}\)Thus, not all subjects are external subjects. Subjects of unaccusative and passive verbs that are generated in the sister-of-V position are not external subjects, but subjects of unaccusative and passive verbs that are generated either as an adjunct to VP or in the specifier of an upper VP-shell are external subjects. Correspondingly, the term ‘internal argument’ is being used here in a more limited sense than is common. Specifically, subjects of unaccusative and passive verbs are here classified as an ‘internal argument’ only if generated as a sister-of-V. If generated as an adjunct to VP or as a specifier in an upper VP-shell, they are classified as an external subject.
John gave Mary a book.

In order to productively discuss how this is done, it is necessary to first discuss Neeleman and Weerman (1999)’s analysis of case morphology and case paradigms.

Neeleman and Weerman (1999) consider case systems that consist of three morphological cases: accusative, dative, and genitive. The authors argue that accusative is unmarked with respect to dative and genitive. A case paradigm consisting of these three morphological cases can therefore be structured on the basis of two bivalent features, where the positive value of each feature indicates the feature’s marked value. The two features Neeleman and Weerman (1999) propose are $<\pm \text{MAR}>$ and $<\pm \text{NOP}>$. In Neeleman and Weerman (1999, p. 87)’s words:

We will call the feature that distinguishes dative from accusative $<+\text{MAR}>$ for ‘marked role’. This feature expresses that dative arguments are typically associated with a thematic role that is marked with respect to the thematic role usually assigned in the domain in question. Thus, according to the thematic hierarchy Goals are marked with respect to Themes, and hence it is the Goal that appears in the dative in VP. We will call the feature that distinguishes genitive from accusative $<+\text{NOP}>$ (for ‘nominal predicate’). This feature expresses that genitive case is typically realized in projections of nouns and adjectives, that is, projections specified as $<+\text{N}>$. In contrast, accusative is typically assigned by verbs and prepositions, that is, $<-\text{N}>$ categories.

These features are combined in the following fashion, thus structuring a case paradigm consisting of accusative, dative, and genitive.

(31) 

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>a.</td>
<td>$\text{ACC} = &lt;-\text{MAR}, -\text{NOP}&gt;$</td>
</tr>
<tr>
<td>b.</td>
<td>$\text{DAT} = &lt;+\text{MAR}, +\text{NOP}&gt;$</td>
</tr>
<tr>
<td>c.</td>
<td>$\text{GEN} = &lt;-\text{MAR}, +\text{NOP}&gt;$</td>
</tr>
</tbody>
</table>

---

17 Nominative case is discussed below. At present, is suffices to note that nominative is excluded from the case paradigm formed by accusative, dative, and genitive.

18 Dative occurs productively in projections specified as $<+\text{N}>$ as well as projections specified as $<-\text{N}>$. As such, dative comes in two varieties: $<+\text{MAR}, +\text{NOP}>$ and $<+\text{MAR}, -\text{NOP}>$. 

In languages with only two morphological cases, only one of the two features is necessary. For instance, the case paradigm of a language with only accusative and dative is as follows.

(32)  a.  ACC = &lt;−MAR&gt;  
b.  DAT = &lt;+MAR&gt;

Turning now to nominative case, Neeleman and Weerman (1999) distinguish two types of nominative affixes: (i) nominative whose morphological exponent expresses additional morphological information (e.g., gender, number, declension class); (ii) nominative whose morphological exponent does not express additional morphological information; i.e., it only conveys the information, ‘nominative’.

An example of the former type is the nominative suffix -ur, from Icelandic.

(33)  Icelandic
     ‘Olaf’
     a.  NOM Olaf-ur  
b.  GEN Olaf-s  
c.  DAT Olaf-i  
d.  ACC Olaf-ø

The suffix -ur is fusional. In addition to conveying the information ‘nominative’, it conveys the following information: masculine, declension class I, singular.

An example of the latter type of nominative affix is the suffix -ga, from Japanese.

(34)  Japanese
     ‘Hanako’
     a.  NOM Hanako-ga  
b.  GEN Hanako-no  
c.  DAT Hanako-ni  
d.  ACC Hanako-o

This suffix does not convey any additional information (e.g., gender, number, declension class). It only conveys the information that the DP to which it is affixed is nominative.

Neeleman and Weerman (1999) argue that the lexical entries of the former type of nominative affix do not specify that the affix is nominative. Thus, -ur is listed as follows, in which there is no specification that the affix is nominative.
By contrast, the entries for the genitive, dative, and accusative affixes would indeed specify that the affixes are genitive, dative, and accusative, respectively. These entries would also contain information about declension class, number, and so on. Thus, the genitive, dative, and accusative affixes would be specified as follows.\(^{19}\)

\[(36)\]
\[
\begin{align*}
&\text{a. } -s: \langle -\text{DEP}, +\text{NOP}, \ldots \rangle \\
&\text{b. } -i: \langle +\text{DEP}, \pm\text{NOP}, \ldots \rangle \\
&\text{c. } -\emptyset: \langle -\text{DEP}, -\text{NOP}, \ldots \rangle 
\end{align*}
\]

Neeleman and Weerman (1999) argue that the lexical entries for nominative affixes such as \(-ur\) do specify that the affix is nominative. The authors analyze nominative in terms of the feature \(\text{tep}\), which stands for ‘tensed predicate’.\(^{20}\)

\[(37)\]
\[\text{NOM} = \langle +\text{TEP} \rangle\]

Thus, there is a fundamental distinction in Neeleman and Weerman (1999)’s system between affixes such as \(-ur\), and affixes such as \(-ga\). The former do not contain the information \(\langle +\text{TEP} \rangle\); that is, they do not contain the information ‘nominative’. The latter do. Therefore, the former are not ‘genuine’ (to use Neeleman and Weerman (1999)’s terminology) nominative affixes, whereas the latter are.

In the fifth chapter, it will be argued that OV languages with genuine nominative affixes are among those that permit argument ellipsis of external subjects. As such, it will be important to be able to decide whether a given nominative affix is genuine or not. The following definition serves this purpose.

\[(38)\]
\[\text{A nominative affix is a genuine nominative affix if it conveys the information ‘nominative’ and no other morphological information (e.g., declension class, number, gender).}\]

In terms of Neeleman and Weerman (1999)’s system of case features, a genuine nominative affix is an affix that contains in its lexical entry the feature \(\langle +\text{TEP} \rangle\); aside from this feature, it contains no

\(^{19}\)Neeleman and Weerman (1999) argue that the case paradigm in Icelandic contains the feature \(\langle \text{DEP} \rangle\), for ‘dependent case’, in lieu of \(\langle \text{MAR} \rangle\). The reasoning behind this decision is not relevant to the present discussion.

\(^{20}\)For presentational reasons, I have not discussed Neeleman and Weerman (1999)’s arguments for treating these two classes of nominative affixes differently. Nor will I discuss their reasons behind labeling the nominative feature, \(\langle \text{TEP} \rangle\). I refer the interested reader to pp. 62-70 and pp. 202-208 in the authors’ text.
additional morphological information (e.g., gender, declension class) in its entry.

Summarizing, in Neeleman and Weerman (1999)’s system, morphological cases are analyzed not as primitives, but in terms of more basic features.

Returning now to the issue of how syntactic arguments are mapped to an appropriate thematic role, Neeleman and Weerman (1999) assume that syntactic arguments and thematic roles are each arranged in a hierarchy, and that the mapping principles pair arguments with roles on the basis of these hierarchies.

The following is their hierarchy of thematic roles.\textsuperscript{21}

\begin{align*}
(39) & \quad \text{Thematic Hierarchy} \\
& \quad \text{Agent} > \text{Theme} > \text{Goal} \\
& \quad \text{(Neeleman and Weerman, 1999, p. 46)}
\end{align*}

As for their hierarchy of syntactic arguments, the following approximation will suffice.\textsuperscript{22}

\begin{align*}
(40) & \quad \text{Hierarchy of Syntactic Arguments} \\
& \quad \text{external argument} > \text{internal argument merged as sister-to-V} > \text{internal argument merged in [Spec, VP]} \\
\end{align*}

The mapping principles map the highest element in the syntactic hierarchy to the highest element in the thematic hierarchy, the middle element in the syntactic hierarchy to the middle element in the thematic hierarchy, and the lowest element in the syntactic hierarchy to the lowest element in the thematic hierarchy.

Neeleman and Weerman (1999) argue that the utilization of the thematic hierarchy is the default strategy. This strategy can be overridden when the mapping principles are provided an alternative means of ensuring a correct mapping between syntactic arguments and thematic roles. Morphological case is one such means.

The following two examples serve as an illustration. The example in (41) is from Dutch, a language without morphological case. In this language, the thematic hierarchy rigidly guides the mapping from syntactic argument to thematic role. In accordance with the

\textsuperscript{21}Aside from Agent, Theme, and Goal, Neeleman and Weerman (1999) do not discuss any other thematic roles.

\textsuperscript{22}Neeleman and Weerman (1999) do not give an explicit statement of this hierarchy. However, their discussion of the thematic hierarchy makes it clear that this hierarchy is what they have in mind, with some irrelevant qualifications omitted from discussion here. The curious reader is referred to pp. 45-46 and p. 149 in their text.
Thematic Hierarchy, the first object must be mapped to Goal, and the second, to Theme.

(41) a. dat de vrouw [VP de mannen [V de film toont]]
   that the woman the men the film shows
   ‘that the woman shows the men the film’
   b. *dat de vrouw [VP de film [V de mannen toont]]
      that the woman the film the men shows
      (intended) ‘that the woman shows the men the film’
      (Neeleman and Weerman, 1999, p. 78)

German expresses accusative and dative case morphologically (i.e., it has accusative case and dative case, where the latter should be understood as morphological case, not abstract case). Moreover, it allows arguments with accusative and dative case to be mapped to thematic roles in contradiction to what the Thematic Hierarchy dictates, as (42-b) demonstrates.

(42) a. Dass die Frau [VP den Männern [V den Film zeigt]]
    that the woman the men.DAT the film.ACC
    shows
    ‘that the woman shows the men the film’
   b. Dass die Frau [VP den Film [V den Männern zeigt]]
      that the woman the film.ACC the men.DAT
      shows
      ‘that the woman shows the men the film’
      (Neeleman and Weerman, 1999, p. 79)

   Intuitively, the contrast between Dutch and German has to do with morphological case. The case morphology in German enables the mapping principles to identify the dative argument as the argument that must be mapped to Goal, even when this argument is not merged in [Spec, VP]. Similarly, the accusative morphology enables a mapping to Theme, even when the latter is not merged as sister-to-V.

   Neeleman and Weerman (1999) analyze this intuition in terms of a case feature. Specifically: case shells borne on internal arguments enter the derivation bearing an unvalued feature, <βMAR>. If the case shell merges with a DP bearing a valued occurrence of this feature, the case shell’s feature is thereby valued, thus enabling the mapping principles to map the argument to a specific thematic role without the aid of the Thematic Hierarchy. If, however, the case shell merges with a DP that does not bear this feature, the case
shell’s feature remains unvalued and the Thematic Hierarchy must be obeyed.

Recall, now, that DPs with morphological dative case bear a valued \textsc{mar} feature, namely \textit{<+mar>}; and DPs with morphological accusative case bear the valued feature, \textit{<-mar>}. Thus, when a case shell with the unvalued feature \textit{<βmar>} merges with a DP with dative case, the case shell’s feature receives the value, ‘+’.\footnote{As noted above, in languages in which the case paradigm consists of dative and accusative only, these two cases are analyzed in terms of the \textsc{mar} feature, only. In languages in which the case paradigm contains genitive in addition to accusative and dative, the three cases are analyzed in terms of both the \textsc{mar} feature and the \textsc{nop} feature. In the representations in (43)-(46), the DPs bear only the \textsc{mar} feature. This is for presentational convenience only. Note, also, that all case shells bear the feature \textit{<αnop>}, an unvalued feature. This feature has also been omitted—again, for presentational purposes.}

\begin{equation}
\text{Merge}(\text{DP}\{<\text{+mar}>\}, \text{CASE}\{<\text{αmar}>\}) \rightarrow
\end{equation}

\begin{equation}
[\text{CASE}\text{P \text{DP}\{<\text{+mar}>\} \text{CASE}\{<\text{+mar}>\}}]
\end{equation}

Analogously, merging a case shell that bears the unvalued feature \textit{<βmar>} with an accusative DP values the feature, ‘-’:

\begin{equation}
\text{Merge}(\text{DP}\{<-\text{mar}>\}, \text{CASE}\{<-\text{mar}>\}) \rightarrow
\end{equation}

\begin{equation}
[\text{CASE}\text{P \text{DP}\{<-\text{mar}>\} \text{CASE}\{<-\text{mar}>\}}]
\end{equation}

At the syntax-semantics interface, there is a mapping rule, mapping DPs headed by a case shell bearing \textit{<+mar>} to Goal. The more general mapping rule, mapping arguments in [Spec, VP] to Goal in accordance with the Thematic Hierarchy, can thus be overruled. Similarly, there is a mapping rule that maps DPs headed by a case shell bearing \textit{<-mar>} to Theme. The more general rule that maps arguments in sister-of-V to Theme can therefore be ignored. These two rules thus account for the German data above.

On the other hand, if a case shell bearing \textit{<βmar>} merges with a DP that lacks morphological case (more specifically, that lacks the feature \textsc{mar}), the feature remains unvalued. The more general mapping rule is thus in effect. Hence the Dutch data, above.

Two final points. First, if an argument does not bear a case shell (as is the case when the predicate that is associated with the argument is head marked), the mapping from syntactic argument to thematic role adheres to the Thematic Hierarchy. Secondly, and importantly for the present account of argument ellipsis, case shells that merge with an external argument do not bear the feature \textit{<βmar>}.
The reasoning is as follows. Predicates may assign more than one internal thematic role; hence, when a predicate takes two internal arguments, the question arises: which argument is to be paired with which internal role? By contrast, predicates assign (at most) one external thematic role. Hence, the question of which external role to assign to which external argument does not arise. There is only one external role and only one external argument. This being so, case shells that merge with an external argument do not need to carry a mar feature. Neeleman and Weerman (1999) therefore assume that case shells merged with an external argument do not bear this feature. The only feature these case shells bear is <\text{\texttt{\textsc{anop}}}>
.

3.3.4 Summary

To summarize, Neeleman and Weerman (1999) posit the following two constraints on the establishment of thematic relations.

(47) \textit{Thematic Mapping}  
An argument $\alpha$ can be associated with a thematic role of a predicate $\pi$ if and only if  
a. $\alpha$ c-commands $\pi$, and  
b. $\pi$ m-commands $\alpha$.

(48) \textit{Visibility} 
A thematic relation between an argument $\alpha$ and a predicate $\pi$ can be established if either $\alpha$ is marked as an argument or $\pi$ is marked as a predicate.

For present concerns, the relevance of the Thematic Mapping condition is that it permits external subjects to be base-generated in one of two positions: (i) adjunct to VP, (ii) specifier of an upper VP-shell.\textsuperscript{24}

Visibility is satisfied in one of two ways. (i) an argument is merged with a case shell; (ii) the predicate with which the argument is thematically associated is head marked. Head marking of a predicate that assigns an external thematic role takes place when a designated feature in the predicate’s external domain is realized by an affix, bearing in mind that realization does not entail overtness; i.e., affixes can be phonologically null. Head marking of a predicate

\textsuperscript{24}Recall that the term ‘external subjects’ applies to two classes of arguments: external arguments and derived subjects.
that assigns an internal thematic role takes place when a designated feature in the predicate’s internal domain is realized by an affix.

Of primary relevance for present concerns is that all case shells bear the feature $<\alpha\text{nop}>$.

In order to ensure that syntactic arguments are mapped to appropriate thematic roles, Neeleman and Weerman (1999) posit two hierarchies—a hierarchy of syntactic arguments and a hierarchy of thematic roles—and mapping principles, mapping specific positions within the former hierarchy to specific positions within the latter hierarchy. When a case shell contains a valued $\text{mar}$ feature, the mapping principles can utilize this information instead.

For present purposes what is important is that case shells merged with external subjects do not bear a $\text{mar}$ feature; they bear only a $\text{nop}$ feature.

3.4 Neeleman and Weerman (1999), Part II

Thematic Mapping defines two positions within which an external subject may be base-generated: (i) adjunct to VP and (ii) specifier of an upper VP-shell. Independent principles in Neeleman and Weerman (1999)’s system determine which position a given external subject must be generated in. The present section presents these principles.

The first subsection introduces a subdivision within the class of case shells: namely, that between ‘empty’ and ‘filled’ case shells. There are thus three types of arguments altogether: (i) arguments that bear an empty case shell, (ii) arguments that bear a filled case shell, (iii) arguments that are licensed through head marking.\textsuperscript{25}

The second subsection presents the principles that determine where a given external subject must be base-generated. These principles produce the following results:

- External subjects that bear an empty case shell are obligatorily generated in the specifier of an upper VP-shell.

- External subjects that bear a filled case shell are obligatorily generated as adjuncts to VP.

\textsuperscript{25}By ‘arguments that are licensed through head marking’, what is meant is, ‘arguments that are thematically associated with a head marked predicate’.
• External subjects that are licensed through head marking are obligatorily generated as adjuncts to VP.

3.4.1 Empty and Filled Case Shells

Case shells enter the derivation bearing unvalued features: namely, \(<\alpha\text{NOP}\)> and (sometimes) \(<\beta\text{MAR}\)> If each of the case shell’s features is valued in the course of the derivation, the case shell is a filled case shell. If one or more of the features remain unvalued, the case shell is an empty case shell.

Valuation takes place when a case shell merges with a DP bearing a matching feature. Thus, a case shell with the feature \(<\alpha\text{NOP}\)> will have this feature valued if and only if it merges with a DP bearing \(<+\text{NOP}\)> or \(<-\text{NOP}\)> A case shell with the feature \(<\beta\text{MAR}\)> will have this feature valued if and only if it merges with a DP bearing \(<+\text{MAR}\)> or \(<-\text{MAR}\)>.

To illustrate, the case shells in (49-b), (50-b), and (51-b) are filled, since all of their features are valued.

\((49)\)

\[
\begin{align*}
\text{a. } & \text{Merge(DP}\{<+\text{NOP}\}\}, \text{CASE}\{<\alpha\text{NOP}>\}) \to \\
& [\text{CASE} \text{P} \text{DP}\{<+\text{NOP}\}\} \text{CASE}\{<+\text{NOP}>\}]
\end{align*}
\]

\((50)\)

\[
\begin{align*}
\text{a. } & \text{Merge(DP}\{<-\text{NOP},-\text{MAR}>\}, \text{CASE}\{<\alpha\text{NOP}>\}) \to \\
& [\text{CASE} \text{P} \text{DP}\{<-\text{NOP},-\text{MAR}>\} \text{CASE}\{<+\text{NOP}>\}]
\end{align*}
\]

\((51)\)

\[
\begin{align*}
\text{a. } & \text{Merge(DP}\{<-\text{NOP},-\text{MAR}>\}, \text{CASE}\{<\alpha\text{NOP},\beta\text{MAR}>\}) \to \\
& [\text{CASE} \text{P} \text{DP}\{<-\text{NOP},-\text{MAR}>\} \text{CASE}\{<-\text{NOP},-\text{MAR}>\}]
\end{align*}
\]

By contrast, the following case shells are empty. In each of the (b)-
examples, one or more of the case shell’s features is unvalued.

\((52)\)

\[
\begin{align*}
\text{a. } & \text{Merge(DP, CASE}\{<\alpha\text{NOP},\beta\text{MAR}>\}) \to \\
& [\text{CASE} \text{P} \text{DP CASE}\{<\alpha\text{NOP},\beta\text{MAR}>\}]
\end{align*}
\]

\((53)\)

\[
\begin{align*}
\text{a. } & \text{Merge(DP}\{<+\text{NOP}>\}, \text{CASE}\{<\alpha\text{NOP},\beta\text{MAR}>\}) \to \\
& [\text{CASE} \text{P} \text{DP}\{<+\text{NOP}>\} \text{CASE}\{<+\text{NOP},\beta\text{MAR}>\}]
\end{align*}
\]

\((54)\)

\[
\begin{align*}
\text{a. } & \text{Merge(DP}\{<-\text{MAR}>\}, \text{CASE}\{<\alpha\text{NOP}>\}) \to \\
& [\text{CASE} \text{P} \text{DP}\{<-\text{MAR}>\} \text{CASE}\{<\alpha\text{NOP}>\}]
\end{align*}
\]

\((55)\)

\[
\begin{align*}
\text{a. } & \text{Merge(DP}\{<+\text{tep}>\}, \text{CASE}\{<\alpha\text{NOP}>\}) \to \\
& [\text{CASE} \text{P} \text{DP}\{<+\text{tep}>\} \text{CASE}\{<\alpha\text{NOP}>\}]
\end{align*}
\]

\((56)\)

\[
\begin{align*}
\text{a. } & \text{Merge(DP, CASE}\{<\alpha\text{NOP}>\}) \to \\
& [\text{CASE} \text{P} \text{DP CASE}\{<\alpha\text{NOP}>\}]
\end{align*}
\]
3.4.2 Head Government at the Syntax-Phonology Interface and the Ban on Unmotivated Movement

Neeleman and Weerman (1999) propose that arguments carrying an empty case shell must be head governed by a <-N> category (i.e., a verb or a preposition). Head government comes in two varieties: a VO version and an OV version. For present concerns, only the OV version is relevant.

(57) Head Government (OV)
    A head $\alpha$ governs $\beta$ iff
    a. $\alpha$ follows $\beta$, and
    b. $\alpha$ and $\beta$ m-command each other.\(^{26}\)

External subjects are head governed when they are merged as the specifier of an upper VP-shell. They are not head governed when merged as an adjunct to VP.\(^{27}\)

\[\begin{array}{c}
\text{VP} \\
/ \\  \ \  \\
\text{ES} \quad \text{V}' \\
/ \ \  \ \\
\text{VP} \quad \text{V}_i \\
\quad \quad \text{(IA)} \quad \text{V}_i
\end{array}\]

Since an external subject that carries an empty case shell must be head governed, it must be generated as the specifier of an upper VP-shell.

\[\begin{array}{c}
\text{VP} \\
/ \ \  \\
\text{ES} \quad \text{VP} \\
\quad \quad \text{(IA)} \quad \text{V}
\end{array}\]

\(^{26}\)This definition of head government makes reference to two types of information: (i) information about linear order, and (ii) information about syntactic structure. Hence, head government in OV languages must apply to structures that contain both types of information. In terms of the theory of the syntax-phonology interface summarized in (3), this means that head government in OV languages applies at the syntax-phonology interface, between steps (3-a) and (3-b). Note, also, that the VO version of head government utilized by Neeleman and Weerman (1999) likewise applies at the syntax-phonology interface. Thus, the version of head government utilized in Neeleman and Weerman (1999) does not entail a re-adoption of the classical version of head government, according to which head government applied in the narrow syntax.

\(^{27}\)‘ES’ stands for ‘external subject’. In the tree diagrams that follow, I have omitted the null operator that is used when the external subject is a derived subject. Strictly speaking, then, the diagrams are appropriate only for those cases in which the external subject is an external argument—that is, those cases in which a null operator is not used.
VP-shell, and not as an adjunct to VP. Only the former position is head governed.

Neeleman and Weerman (1999) propose that arguments carrying a filled case shell do not need to be head governed; nor do arguments that are licensed through head marking. The fact that these two classes of arguments are not subject to a head government requirement, in conjunction with the economy condition in (60), produces the following result: external subjects that bear a filled case shell and external subjects licensed through head marking must be base-generated as adjuncts to VP, not as specifiers of an upper VP-shell. Here is why: (i) since these two types of external subjects need not be head governed, they can be generated as adjuncts to VP. Since they can, they must, given (60). Specifically, the verb movement involved in the formation of a VP-shell is unmotivated when the external subject does not need to be head governed. As such, this verb movement—and with this, the formation of a VP-shell—is banned. Adjunction to VP is thus the only option.

(60) Ban on Unmotivated Movement
A movement operation μ can only take place if μ allows satisfaction of a condition that would otherwise be violated.
(Neeleman and Weerman, 1999, p. 29)

At this point, one might ask whether an external subject bearing an empty case shell may be base-generated as an adjunct to VP, provided it then raises to the specifier of an upper VP-shell. That is, the external subject is adjoined to VP, the verb heading this VP merges with VP, forming an upper VP-shell, and the external subject then raises to the specifier of this upper shell.

(61)
Importantly, neither the verb movement nor the movement of the external subject violates (60): if these movements do not take place, the external subject will not be head governed.

According to the account of argument ellipsis presented below, OV languages with argument ellipsis allow argument ellipsis of external subjects only if the external subject occupies the specifier of an upper VP-shell. Whether it is base-generated there or raised to this position is of no importance. Thus, for the purposes of this account of argument ellipsis, it is not necessary to decide whether external subjects bearing an empty case shell can be generated as in (61). That being said, I will nonetheless assume they cannot. This assumption is not essential, though it will simplify the exposition, below.

As for external subjects carrying a filled case shell and external subjects licensed through head marking, it is clear that these two classes of external subjects cannot be generated as in (61). They do not need to be head governed. The verb movement involved in the generation of a VP-shell and the movement of the external subject are thus excluded by the Ban on Unmotivated Movement.

To summarize, the specifier of an upper VP-shell is head governed; the adjunct of VP is not. External subjects that carry an empty case shell must therefore be base-generated in the specifier of an upper VP-shell. External subjects that carry a filled case shell and external subjects that are licensed through head marking must be base-generated as adjuncts to VP.

Briefly: Why must arguments carrying an empty case shell be head governed? And why do arguments carrying a filled case shell and arguments licensed through head marking not need to be head governed? Neeleman and Weerman (1999)’s response is the ECP, which applies at the syntax-phonology interface.

(62) Empty Category Principle
A non-pronominal empty category must be properly head-governed.

(Neeleman and Weerman, 1999, p. 7)

Empty shells are treated as empty categories in their system. They must therefore be head governed.28 Filled shells are not empty cat-

---

28 Above, it was stated that external arguments that carry an empty case shell must be head governed. This was not, however, quite accurate. It is the case shell, itself, that must be head governed, not the entire external subject (i.e., not the
egories in their system. As such, it is not necessary that they be head governed. Similarly so for arguments licensed through head marking.

It should be noted that case shells are phonologically null, whether empty or filled. Clearly, then, Neeleman and Weerman (1999)’s conception of ‘empty category’ is not based on phonological realization. Rather, it is based on whether a category contains unspecified features at the syntax-phonology interface. Empty case shells do; filled case shells do not. As for arguments licensed through head marking, Neeleman and Weerman (1999) assume without discussion that these are not empty—thus, that they do not contain unspecified features at the syntax-phonology interface. Unfortunately, they do not discuss the featural composition of D (or, in the case of PP-arguments licensed through head marking, of P). The implicit assumption, however, is that these heads are fully specified.

3.4.3 Excursus on Certain Impossible Movements

In the account of argument ellipsis presented in the following section, the positions sister-of-V and [Spec, VP] play an important role. In OV languages with argument ellipsis, arguments may elide only when in one of these two positions. In principle, then, one would expect arguments to be eligible for argument ellipsis in one of two situations: when they are base-generated in one of these positions; when they raise to one of the positions. However, Neeleman and Weerman (1999)’s system precludes the latter possibility: there is no raising to either of these positions. This will be demonstrated in the present subsection.29

entire CaseP). With this clarification in place, a potential objection arises. With CaseP generated in the specifier of an upper VP-shell, it m-commands, and is m-commanded by, the verb; hence, it is head governed by the verb. However, the case shell (i.e., Case0) itself does not m-command the verb. It would therefore seem to be the case that the case shell is not head governed, in violation of the ECP. Neeleman and Weerman (1999, p. 26, fn. 7) anticipate this objection and respond as follows:

“Strictly speaking, the empty case head [...] is not within the verb’s government domain: it is contained in the [CaseP] and hence fails to m-command the verb. However, by X-bar theory the properties of a head are transferred to its maximal projection. As a result, an empty head meets the ECP if its maximal projection is properly governed.”

29Neeleman and Weerman (1999) do not discuss whether movement into these positions is possible. However, it is clear (with one exception noted below) that their system excludes such movement.
The first case to consider is one in which an internal argument moves to the specifier of an upper VP-shell.

\[(63) \quad [VP \ IA_i [V' \ [VP \ IA_i \ V_j ] \ V_j ] ]\]

If the internal argument does not need to be head governed (i.e., it bears a filled case shell or is licensed through head marking), its movement and that of the verb violate the Ban on Unmotivated Movement. If it does need to be head governed (i.e., it bears an empty case shell), then it is already governed in its base-position and its movement, and that of the verb, violate the same ban.

Secondly, suppose an internal argument moves into the specifier of a VP in a higher clause.

\[(64) \quad [VP \ IA_i [V' \ [CP \ IA_i \ [VP \ IA_i \ V ] ] ] ]\]

Again, the movement is Unmotivated. If the argument does not need to be head governed, the movement satisfies no constraint and is therefore excluded. If it does need to be head governed, it is already head governed in its base-position and the movement does not satisfy any constraints.

Note, also, that the movement proceeds from an A-position, to an A'-position, back to an A-position—an instance of improper movement.

Third, consider whether an external subject can raise to the specifier of an upper VP-shell.

\[(65) \quad [VP \ ES_i [V' \ [VP \ ES_i \ [VP \ (IA) \ V_j ] \ V_j ] ]]\]

This case was already discussed above in section 3.4.2. In those cases in which the external subject does not need to be head governed, the movement is Unmotivated, hence banned. In those cases in which the external subject does need to be head governed, it is not clear whether such movement is excluded under Neeleman and Weerman (1999)'s system. However, nothing hinges on this. If it is permitted, the external subject will have the option of being base-generated as an adjunct to VP. It will then obligatorily raise to the specifier of the upper VP-shell, so that it can be head governed. On the other hand, if it is not permitted, the external subject will simply be base-generated in this specifier position to start with. Under both systems, the external subject will be positioned in the specifier position (assuming it does not undergo further movement). Hence,
it will be able to undergo argument ellipsis. (Recall that [Spec, VP] is one of the two positions eligible for argument ellipsis in OV languages.) So far as I can discern, the two possibilities are not empirically distinguishable, at least as concerns the present account of argument ellipsis. As noted above, I therefore assume that external subjects bearing an empty case shell must be base-generated in the specifier of an upper VP-shell. They cannot be adjoined to VP and then raise to the specifier position. This is a simplifying assumption that nothing crucial seems to depend upon.

Fourth, consider whether an external subject can move to the specifier of a VP in a higher clause.

(66) [vp ES_1 ... [cp ES_1 ... [vp ES_1 ... ] ] ]

If the external subject bears an empty case shell, it is already head governed in its base-position. Hence, the movement violates the Ban on Unmotivated Movement. If the external subject does not bear an empty case shell, movement to a head governed position does not satisfy any condition. Once again, the movement is Unmotivated. Moreover, the movement is improper.

Finally, no argument can raise long-distance to the sister-of-V position. If the clause out of which the argument raises is, itself, the sister of the upstairs V, clearly the argument cannot target this position. If, alternatively, the clause is attached higher up (say, in [Spec, VP]), then there is some other constituent that is already the sister of the upstairs verb; e.g., a non-clausal internal argument (as in ‘tell-DP-CP’). Moreover, the movement would be to a non-commanding position.

To summarize, arguments cannot raise to [Spec, VP] or to sister-of-V position.

3.5 ON THE DISTRIBUTION OF ARGUMENT ELLIPSIS: A NOVEL ACCOUNT

3.5.1 Locality: Stating the Constraint

Much work on ellipsis assumes that ellipsis operations require licensing by a syntactic head. For instance, work on sluicing maintains that sluicing is licensed by C_{+wh,+Q} (Merchant, 2001), and
work on NP-ellipsis often argues that ellipsis of NP is licensed by D (Lobeck, 1995). In the same vein, I argue that argument ellipsis is licensed by V. Specifically:

(67) In languages in which argument ellipsis is permitted, argument ellipsis of an argument Arg is possible only if Arg and V are local.

Crucially, the definition of locality varies as a function of whether the language in question is VO or OV. In VO languages, locality is defined as immediate precedence.

(68) Locality (VO version):
    V and Arg are local if and only if V immediately precedes Arg.

In OV languages, locality is defined in terms of sisterhood.

(69) Locality (OV version):
    V and Arg are local if and only if Arg is a sister of V or V'.

In short, the distribution of argument ellipsis is subject to a representational constraint. The constraint comes in two varieties, one of which holds in VO languages and the other, in OV languages.

3.5.2 Locality: Point of Application

At what point or points in the derivation does this constraint apply? Consider, first, the VO version. First of all, the constraint makes reference to precedence. Hence, it cannot hold in the narrow syntax, itself. Rather, it must hold at the syntax-phonology interface, following the introduction of linear order. Secondly, the constraint is a constraint on the ellipsis of arguments. Hence, it must apply at some point in the derivation in which the concept ‘argument’ is definable. Moreover, given the conclusion that the constraint applies at the syntax-phonology interface, the notion must be defined

\[ \text{[VP XP [VP YP [V' ZP V]]]} \]

XP is local to V in (ii). (YP is local to V, too.)

\[ \text{[VP XP [V' [VP YP V_1 V_1]]]} \]

An alternative statement of the OV version of locality is as follows:

(iii) Locality (OV, version 2):
    V and Arg are local if and only if Arg set merges with a projection of V (including the trivial projection).

I will leave consideration of this alternative version to future work.

---

\[ ^{30}\text{Thus, ZP and YP are local to V in (i), but XP is not.} \]

\[ \text{(i)} \]
\[ \text{[VP XP [VP YP [V' ZP V]]]} \]

\[ \text{XP is local to V in (ii). (YP is local to V, too.)} \]

\[ \text{(ii)} \]
\[ \text{[VP XP [V' [VP YP V_1 V_1]]]} \]

An alternative statement of the OV version of locality is as follows:

(iii) Locality (OV, version 2):
    V and Arg are local if and only if Arg set merges with a projection of V (including the trivial projection).

I will leave consideration of this alternative version to future work.
in terms of concepts that are defined at the interface. I will define ‘argument’ as follows.\(^{31}\)

\[(70)\] Argument\(_{\text{def}}\): The maximal projection in the (extended) projection of a head of category \(<-V>\) (i.e., N or P).

This definition utilizes two types of information: categorial information and phrase structural information. The output of (71-a) contains phrase structural information; the output of (71-b) does not. The output of (71-a) also contains categorial information. Hence, the VO version of the constraint applies in the syntax-phonology interface, directly following the introduction of linear order.

\[(71)\]
\begin{itemize}
  \item a. Linearization of syntactic terminals
  \item b. Initial prosodic phrasing, on the basis of syntactic information
  \item c. Application of checking rules
  \item d. Deletion of copies
  \item e. Application of context-sensitive allomorphy rules
  \item f. Spell-out of terminals
\end{itemize}

Note that it need not be stipulated that the constraint holds at this precise point in the derivation. This is the only point in the mapping from the initial numeration to the final semantic and phonological representations in which the constraint is defined. Hence, the fact that the constraint holds here, and only here, need not be stipulated.

Consider, now, the OV version of the constraint, repeated below.

\(^{31}\) Various authors have claimed that argument ellipsis of clausal arguments is possible, in some languages at least (see, e.g., Cheng (2013), Saito (2007), and Sato and Karimi (2016)). In my estimation, it is, however, still an open question as to whether argument ellipsis of clausal arguments is ever possible. First, instances of putative clausal ellipsis are often (though not always) alternatively analyzable as involving verb-stranding VP ellipsis. Second, an alternative analysis involving a deep anaphor (specifically, clausal \(\text{pro}\)) is not always considered. In this connection, Japanese is an instructive case in point. Japanese is often assumed to allow ellipsis of clausal arguments (Saito, 2007; D. Takahashi, 2014). Upon closer inspection, this conclusion seems to be incorrect, or, at the least, worthy of further examination. According to Funakoshi (2014), null clausal arguments in Japanese are in fact generated under verb-stranding VP ellipsis; according to Kasai (2014), null clausal arguments in Japanese are in fact \(\text{pro}\). Although the two authors reach different conclusions, they both share the view that null clauses are not generated under clausal ellipsis.

The relevance of this discussion is as follows: it is not clear whether the definition of argument given in the body of the text includes IP and CP; this depends upon whether one defines these categories in terms of the features \(\pm V\) and \(\pm N\), and if so, how one defines them. In any event, in what follows, I will not consider null clauses, restricting attention instead to null nominal and prepositional phrases (and, in fact, mainly to null nominal phrases, alone). If it turns out that the definition given above excludes clausal ellipsis, and if such is indeed possible, then the definition will have to be adjusted.
Locality (OV version):
V and Arg are local if and only if Arg is a sister of V or V'.

This constraint makes reference to precedence, argumenthood, and sisterhood. Given that the constraint makes reference to precedence, it cannot hold in the narrow syntax; and given that it makes reference to argumenthood, it must hold prior to step (71-b). Thus, the OV version of the constraint, as with the VO version, must hold between steps (71-a) and (71-b). This requirement is of course compatible with the fact that the constraint likewise makes reference to sisterhood. Sisterhood is defined with respect to linearized trees.

In sum, both versions of the locality constraint hold at the syntax-phonology interface, directly following the introduction of linear order.

3.5.3 Locality: Some Predictions

In the present section, I present some of the predictions made by the present account of argument ellipsis. In the following chapter, I test these predictions.

In languages with argument ellipsis, the distribution of argument ellipsis is governed by the following constraint, which holds at the syntax-phonology interface.

In languages in which argument ellipsis is permitted, argument ellipsis of an argument Arg is possible only if Arg and V are local.

In VO languages, the definition of locality is in terms of immediate precedence.

Locality (VO version):
V and Arg are local if and only if V immediately precedes Arg.

The term ‘precedence’ does not appear in the definition. However, it is implicit in this definition, as it distinguishes the two versions of locality. The following statements of the two versions of locality make this clearer.

(i) a. If V canonically precedes O, then V and Arg are local if and only if V immediately precedes Arg.
   b. If O canonically precedes V, then V and Arg are local if and only if Arg is a sister of V or V'.

By ‘V canonically preceding O’, what is meant is that the language is VO in its basic word order. Similarly for ‘O canonically preceding V’, mutatis mutandis. As for ‘basic word order’, I will not attempt to provide a formal characterization—an informal understanding of this suffices.
Given that immediate precedence is what is required, it follows that the argument need not be thematically related to the verb. Thus, the present account predicts that subjects of embedded clauses may undergo argument ellipsis, provided immediate precedence holds. Such is the case with subjects of small clauses and subjects of infinitival clauses.

(75)   a.  \( V \ [SC \ Arg \ ... \] \)
       b.  \( V \ [TP \ Arg \ ... \] \)

In the following chapter, I demonstrate that BP allows argument ellipsis in both environments.\(^{33}\)

Indeed, the present account makes an interesting prediction with respect to subjects of finite clauses (embedded and matrix): in VO languages with argument ellipsis, ellipsis of subjects of finite clauses will be possible only under VS order. In VSO languages, then, subject ellipsis should be possible in general, a prediction I have not been able to test.\(^{34}\) In SVO languages, the prediction is that subject ellipsis will be possible in sentences involving VS word order, but not in those involving SV word order. BP confirms this prediction, which provides important support to the present study’s claim that immediate precedence is the operative principle determining the distribution of argument ellipsis in VO languages.

Turning now to OV languages, the present account proposes the following definition of locality, which likewise holds at the syntax-phonology interface.

(76)   **Locality (OV version):**
       \( V \) and \( Arg \) are local if and only if \( Arg \) is a sister of \( V \) or \( V' \).

\(^{33}\)If a language has null complementizers, it is predicted that subjects of embedded finite clauses may also undergo argument ellipsis. I have not been able to test this prediction, as embedded clauses in BP are headed by overt complementizers. Suppose, however, that this prediction is disconfirmed. A minimal, and indeed plausible, extension of the current account would require that \( V \) and the argument be contained in the same intonational phrase, in addition to the requirement that \( V \) immediately precede the argument. If CPs are mapped to distinct intonational phrases (as the following example suggests, for English at least), the subject of the embedded clause will not be local to the upstairs verb, thus disallowing argument ellipsis.

(i)   a.  \([CP \ This \ is \ the \ cat\ [CP \ that \ ate \ the \ rat\ [CP \ that \ ate \ the \ cheese\]]\]
       b.  \([I \ This \ is \ the \ cat\ [I \ that \ ate \ the \ rat\ [I \ that \ ate \ the \ cheese\]]\]


\(^{34}\)Indeed, no VSO language has been reported as allowing argument ellipsis, to my knowledge.
Internal arguments are base-generated in positions that are local to V.

(77) \[
[\text{VP} \ \text{IA} \ [\text{V} \ \text{IA} \ V]]
\]

Thus, if an internal argument remains in situ throughout the entire derivation, it is local to V. Similarly, if it undergoes covert movement from its base-position, it is nonetheless local to V. However, if it overtly raises from its base-position, it is not local to V.\(^{35}\)

Accordingly, the present account of argument ellipsis makes the following prediction.

\(^{35}\)Recall the discussion in section 3.4.3, in which it was concluded that arguments in OV languages cannot raise to a position that is local to V. Thus, if an argument overtly raises from its base-position, it has not raised to a position that is local to V.

In this connection, note that after overt movement occurs, although the moved expression ceases to be local to V, its copy remains local to V. (That is, the lower occurrence of the movement dependency is local to V; the higher occurrence is not.)

(i) \[
[\text{IA}_1 \ldots [\text{VP} \ \text{IA}_1 \ V]]
\]

Similarly, if an external subject generated in the specifier of an upper VP shell undergoes overt movement, the lower occurrence is local to V, but the higher occurrence is not.

Since the lower occurrence is local to V at the syntax-phonology interface, it may undergo argument ellipsis (if the language allows argument ellipsis, that is). However, the higher occurrence may not undergo argument ellipsis, as it is not local to V.

Eliding the lower occurrence through argument ellipsis will produce the same output that would be produced at step (ii-d) of the interface, whereupon copies are deleted. Thus, the fact that the current system sometimes permits the lowest copy in a movement chain to undergo argument ellipsis does not generate any outputs that are not otherwise generated. As such, this facet of the current system is not worrisome.

(ii) a. Linearization of syntactic terminals
b. Initial prosodic phrasing, on the basis of syntactic information
c. Application of checking rules
d. Deletion of copies
e. Application of context-sensitive allomorphy rules
f. Spell-out of terminals

Still, I should point out that I am implicitly assuming a rather simple—and perhaps too simple—mechanism of copy deletion, according to which all copies but the highest copy in a movement chain are deleted. If a more nuanced system in which lower copies can sometimes avoid deletion (such as is advocated in Bošković and Nunes (2007) and a number of the references therein) is adopted, then the current system potentially produces outputs that would not otherwise be generated.

Finally, and relatedly, suppose that in a VO language, an argument raises from a position that is immediately preceded by V to a position that is not immediately preceded by V.

(iii) \[
\text{Arg}_i \ldots \text{V Arg}_i
\]

The lower occurrence of the movement dependency can undergo argument ellipsis, but the higher occurrence cannot. Again, ellipsis of the lower occurrence will not produce any outputs that would not otherwise be produced. Henceforth, I will therefore speak of sentences in which an argument overtly raises to a position that is not local to V as sentences that do not allow argument ellipsis, ignoring the fact that argument ellipsis can in fact elide the lowest copy of the movement dependency.
In an OV language with argument ellipsis, an internal argument may undergo argument ellipsis only if it has not overtly raised from its base-position.

In the fifth chapter, I present some evidence that suggests that this prediction holds true. Japanese generally allows argument ellipsis of internal arguments. Interestingly, it does so even with arguments that have undergone QR (Oku, 2016). It does not, however, allow argument ellipsis of nominative objects (Funakoshi, 2011), which are often (though not always) analyzed as undergoing overt movement to a VP-external position (Tada, 1993; Koizumi 1995; Miyagawa, 2001, pp. 306-311).

The present account makes a further prediction with respect to internal arguments.

If an OV language allows argument ellipsis, it allows argument ellipsis of internal arguments.

This is not to say that it will allow argument ellipsis of internal arguments all of the time. An internal argument overtly raised from its base-position will not elide. The import of the prediction is simply that there will be no OV language that, on the one hand, allows argument ellipsis and that, on the other hand, never allows argument ellipsis of internal arguments.36

This prediction is correct, as a review of the literature on argument ellipsis reveals. Every OV language that has been reported as allowing argument ellipsis permits ellipsis of internal arguments.

With respect to external subjects in OV languages, note that the specifier of an upper VP-shell is local to V, but an adjunct to VP is not.

In this connection, recall that arguments cannot raise to a position that is local to V (see section 3.4.3). Thus, an external subject base-generated as an adjunct to VP is incapable of undergoing argument ellipsis: it is base-generated in a position that is not local to V, and it cannot raise to a position that is local to V. Accordingly, the present account of argument ellipsis generates the following prediction.

36If there are OV languages in which all internal arguments must always overtly raise from their base positions, the above prediction would have to be reformulated accordingly.
In an OV language with argument ellipsis, an external subject may undergo argument ellipsis only if it is base-generated in the specifier of an upper VP-shell.

Only external subjects that carry an empty case shell are generated in this position. Hence, the prediction can be restated as follows.

In an OV language with argument ellipsis, an external subject may undergo argument ellipsis only if it carries an empty case shell.

Similarly put:

In an OV language with argument ellipsis, an external subject may undergo argument ellipsis only if it is Case_empty_P.

For an external subject to undergo argument ellipsis, it is necessary that it be Case_empty_P. It is not sufficient, though. The Case_empty_P must not have raised overtly from its base-position.

In an OV language with argument ellipsis, an external subject may undergo argument ellipsis only if it is Case_empty_P and overtly in situ.

The present account thus makes three sets of predictions with respect to external subjects. First, it predicts which OV languages with argument ellipsis will allow ellipsis of external subjects and which will not. Those in which external subjects bear an empty case shell will allow argument ellipsis of external subjects; those in which external subjects do not bear an empty case shell will not.

Note that it is in principle possible that languages employ more than one way of licensing external subjects. For instance, in a split-ergative system with nominative-accusative as well as ergative-absolutive alignment, it is not uncommon for ergative subjects, but not nominative subjects, to bear case morphology and for nominative subjects, but not ergative subjects, to agree with the verb. This state of affairs is suggestive of one in which ergative subjects are licensed through dependent marking and nominative subjects are licensed through head marking. If the case shell borne by the ergative subjects is empty, and if the language allows argument ellipsis, then the language will allow argument ellipsis of its ergative subjects, but not of its nominative subjects. On the other hand, languages in which external subject never bear an empty case shell will never allow ellipsis of external subjects. Correspondingly, languages in
which external subjects always bear an empty case shell will always allow ellipsis of external subjects (provided they are in situ).

The second prediction (which is related to the first prediction) is that there are three types of OV languages with argument ellipsis: (i) languages in which external subjects always bear an empty case shell; such language will always allow ellipsis of (in situ) external subjects; (ii) languages in which external subjects never bear an empty case shell; such languages will never allow ellipsis of external subjects; (iii) ‘hybrid’ languages—i.e., languages in which one or more classes of external subjects bear an empty case shell and the remaining class(es) do(es) not; such languages will allow ellipsis of external subjects in the former class, but not of external subjects in the latter class.

Third, and as already noted, it predicts that Case empty P in OV languages with argument ellipsis may undergo argument ellipsis only if overtly in situ.

All the OV languages considered in this study appear to license external subjects in only one way: (i) with an empty case shell; (ii) not with an empty case shell (i.e., either a filled case shell, head marking, or both, depending on the external subject). Thus, I have not been able to test whether hybrid languages conform with the present account’s predictions. The focus, then, is on languages that either do or do not have external subjects with empty case shells. In the fifth chapter, I will demonstrate that the present account’s predictions with respect to these two types of languages are upheld. Whether an OV language with argument ellipsis allows ellipsis of external subjects depends upon whether the external subjects bear an empty case shell in the language. This prediction is novel in the literature on argument ellipsis and the fact that it is confirmed lends support to the present account of argument ellipsis.

As just noted, the main focus will be on demonstrating that the present account makes the right subdivision within the class of argument ellipsis-allowing OV languages. Having done so, the next question is whether elided external subjects in OV languages are overtly in situ, as the current account predicts. I have not been able to test this prediction.37

---

37If an elided external subject is interpreted in a position higher than its in situ position, this does not indicate that it has moved overtly; covert movement would yield the desired effect.
The present chapter is a study of the distribution of argument ellipsis in Brazilian Portuguese (BP). I begin by establishing that BP permits argument ellipsis. I do so through an examination of the interpretative properties to which null objects give rise.\textsuperscript{1} I then argue that argument ellipsis in BP is subject to the constraint in (1), with locality defined as in (2). Two arguments are given. First, subjects of small clauses and of infinitival clauses may undergo argument ellipsis, as is expected given that they are immediately preceded by V. Second, and strikingly, subjects of finite clauses may undergo argument ellipsis, but only under VS order, not under SV order. I then demonstrate that the distribution of argument ellipsis in BP proves problematic for existing accounts of argument ellipsis.

(1) In languages in which argument ellipsis is permitted, argument ellipsis of an argument Arg is possible only if Arg and V are local.

(2) Locality (VO version):
V and Arg are local if and only if V immediately precedes Arg.

4.1 NULL OBJECTS

In the present section, I establish that BP allows argument ellipsis. I begin by reviewing evidence from the literature that null objects in BP are \textit{pro}_{\text{def}}.\textsuperscript{2} I then argue that null objects in BP can additionally be generated under argument ellipsis. I do this in a step-by-step fashion. I first demonstrate that null objects can be interpreted as indefinites. For example, they can be interpreted as indefinites. For example, they can be interpreted as

\textsuperscript{1}Cyrino (1994), Ferreira (2000, pp. 83-86), and Cyrino and Lopes (2016) have argued that BP null objects can be generated under argument ellipsis. For presentational reasons, I will not review these authors’ arguments.

\textsuperscript{2}In the second chapter, I discussed Tomioka (2003)'s property-denoting null pronoun, which I referred to as \textit{pro}_{\text{\textless}e,t\text{\textgreater}}. By \textit{pro}_{\text{def}}, I simply mean the null definite pronoun much discussed in the literature since Rizzi (1982).
um livro ‘a book’ or dois bolos ‘two cakes’. By definition, pro\textsubscript{def}—a definite pronoun—cannot give rise to an indefinite interpretation; hence, the null object is not always pro\textsubscript{def}. I then argue that the indefinite interpretation cannot always be attributed to a derivation involving verb-stranding VP ellipsis (VVPE). That is, although there are some instances in which the null object’s indefinite interpretation can indeed be generated under VVPE, there are other instances in which VVPE is demonstrably not involved. Therefore, some additional method for generating the null object’s indefinite interpretation must be available. At this point, I consider the possibility that BP allows null object pro\textsubscript{<e,t>}. This, in conjunction with existential closure, would indeed account for the availability of indefinite construals. However, it would not account for the fact that null objects in BP can denote expressions of type <et,t>. By contrast, argument ellipsis indeed accounts for this, as well as for the fact that the null objects produce indefinite construals. On the basis of this, it is concluded that null objects in BP can be generated under argument ellipsis.

Various authors have argued that the null object in BP is pro\textsubscript{def}. A particularly strong argument is presented by Ferreira (2000), where it is shown that null objects in BP give rise to the same sorts of interpretations that definite pronouns do.

Definite pronouns can be construed as bound variables. Such is the case in (3-a), in which the pronoun is construed as a variable, bound by the QP nenhum documento ‘no document’. The resulting reading is given in (3-b).

(3) a. O João não assinou nenhum documento antes da secretária terminar de revisá-lo.
   João didn’t sign any document before the secretary finished revising it.

   ‘João didn’t sign any document before the secretary finished revising it.’

   b. There is no x, x a document, such that João signed x before the secretary finished revising x.

Replacing the pronoun in (3-a) with a plural pronoun gives rise to what Ferreira (2000) calls ‘group readings’.

   ‘João didn’t sign any document before the secretary finished revising them’
4.1 Null Objects

‘João didn’t sign any document before the secretary finished revising them.’

b. There is no x, x a document, such that João signed x before the secretary finished revising the group of documents to which x belongs.

Finally, pronouns can be construed as E-type pronouns.

(5) a. Nenhuma criança que ganhar um brinquedo novo vai querer emprestar ele pros irmãos.
‘No child that gets a new toy will want to lend it to his siblings.’

b. For no child x and no new toy y such x gets y is it the case that x will want to lend y to x’s siblings.

Null objects give rise to the same readings. In (6), the null object can be construed as a bound variable, in which case the sentence has the reading in (3-b), or as a non-bound, plural pronoun, in which case the sentence has the reading in (4-b).

(6) O João não assinou nenhum documento antes da secretária terminar de revisar __.
‘João didn’t sign any document before the secretary finished revising it/them.’

Null objects can also be construed as E-type pronouns, as the following example illustrates. The interpretation of this sentence is (5-b), above.

(7) Nenhuma criança que ganhar um brinquedo novo vai querer emprestar __ pros irmãos.
‘No child that gets a new toy will want to lend it to his siblings.’

The fact that null objects and definite pronouns in BP can be paired with the same interpretations supports an analysis of null objects in which the latter can be generated as pro_{def}. Under such an analysis, the interpretative similarities between null objects and definite pronouns are expected.

In addition to definite construals, the null object can be interpreted as an indefinite. Hence, the null object in BP is not always pro_{def}. 

null objects
The following three examples demonstrate that null objects in BP can be interpreted as indefinites. In (8-a), the null object is interpreted as ‘a book’; in (9-a), it is interpreted as ‘an egg’, with the indefinite being understood within the scope of negation; in (10-a), the null object is interpreted as ‘two cakes’.

(8)  a. O João vai mostrar um livro pra Maria e o Pedro vai mostrar ___ pra Júlia.
    ‘João will show a book to Maria, and Pedro will show a book to Julia.’
    b. There is a book, x, such that João will show x to Maria and there is a book, y, such that Pedro will show y to Julia.

(9)  a. O João não vai fritar nenhum ovo pra Maria e o Pedro não vai fritar ___ pra Júlia.
    ‘João will not fry an egg for Maria, and Pedro will not fry an egg for Julia.’
    b. There is no egg, x, such that João will fry x for Maria and there is no egg, y, such that Pedro will fry y for Julia.

(10) a. O João deu dois bolos pra Maria e o Pedro deu ___ pra Júlia.
    ‘João gave two cakes to Maria, and Pedro gave two cakes to Julia.’
    b. There are two cakes, w and x, such that João gave w and x to Maria, and there are two cakes, y and z, such that Pedro gave y and z to Julia.

For the sake of thoroughness, compare the previous three examples with the following examples, in which the null object has been replaced with a definite pronoun. Unsurprisingly, the definite pronouns do not produce the readings above. They do not produce indefinite construals, but rather definite construals (which, in the case of (12-a) and (12-b), result in unacceptability, given that the pronouns lack a discourse antecedent to refer to.) If the null object in the examples above were pro_def, the indefinite readings would not be possible.

(11) (Compare with (8-a))
a. O João vai mostrar um livro pra Maria e o Pedro vai mostrar ele pra Júlia.
   ‘João will show a book to Maria, and Pedro will show it to Júlia.’

b. There is a book, x, such that João will show x to Maria and Pedro will show x to Julia.

(12) (Compare with (9-a))

a. #O João não vai fritar nenhum ovo pra Maria e o Pedro não vai fritar ele pra Júlia.
   ‘João will not fry an egg for Maria, and Pedro will not fry it for Julia.’

b. #O João não vai fritar nenhum ovo pra Maria e o Pedro não vai fritar eles pra Júlia.
   ‘João will not fry an egg for Maria, and Pedro will not fry them for Júlia.’

(13) (Compare with (10-a))

a. O João deu dois bolos pra Maria e o Pedro deu eles pra Júlia.
   ‘João gave two cakes to Maria, and Pedro gave them to Júlia.’

b. There are two cakes, x and y, such that João gave x and y to Maria, and Pedro gave x and y to Julia.

In addition to pro_def, there must therefore be some additional method for generating null objects. Moreover, this method must be capable of producing indefinite construals. One initial possibility to consider is that this additional method is VVPE. Let us evaluate this possibility.

The following examples demonstrate that BP allows VVPE.3 For starters, consider (14).

(14) O João deu cuidadosamente duas taças pra Maria, mas o Pedro não deu.
    ‘João gave two glasses to Maria carefully, but Pedro didn’t give two glasses to Maria carefully.’

---

3For a recent study of VVPE in BP, see Tescari Neto (2012). For earlier studies, see Cyrino (1994) and Cyrino and Matos (2002).
The interpretation of the second conjunct can, in principle, be generated in two ways: (i) *cuidadosamente, duas taças*, and *a Maria* are each elided; (ii) some constituent containing *cuidadosamente, duas taças*, and *a Maria* is itself elided.

(15) a. não deu+T [VP *cuidadosamente* [VP *V* [duas taças] [pra Maria]]]
   b. não deu+T [VP *cuidadosamente* [VP *V* [duas taças] [pra Maria]]]

The possibility depicted in (15-a) must, however, be rejected. If ellipsis of *cuidadosamente* were possible, the following sentence would allow the reading under (b), given the availability of the derivation in (17), involving ellipsis of *cuidadosamente*.

(16) O João deu cuidadosamente duas taças pra Maria, the João gave carefully two glasses to the Maria
    mas o Pedro não deu duas taças pra ela.
    but the Pedro NEG gave two glasses to her
    = (a) ‘João gave two glasses to Maria carefully, but Pedro didn’t give two glasses to Maria.’
    ≠ (b) ‘João gave two glasses to Maria carefully, but Pedro didn’t give two glasses to Maria carefully.’

(17) não deu+T [VP *cuidadosamente* [VP *V* duas taças pra ela]]

Hence, the interpretation of (14) is generated through the ellipsis of some constituent that properly contains the adverb. This constituent is VP.

The following examples provide further evidence that BP allows VVPE.

(18) O João não contou nenhum acontecimento pra Júlia
    the João NEG related no happening to the Julia
    bêbada e o Pedro não contou nenhum acontecimento
    drunk F and the Pedro NEG related no happening
    pra Patrícia.
    to the Patricia
    = (a) ‘João didn’t relate any happening to Julia while she was drunk, and Pedro didn’t relate any happening to Patricia.’
    ≠ (b) ‘João didn’t relate any happening to Julia while she was drunk, and Pedro didn’t relate any happening to Patricia while she was drunk.’

The second conjunct cannot be construed as containing a silent occurrence of the secondary predicate. From this, it can be concluded
that ellipsis of the secondary predicate is not possible (see (19)). If it were, the reading under (b) would be generated.

\[ \text{não contou} + T [\text{VP} \, t_V \, \text{nenhum acontecimento pra Patricia bêbada}] \]

By contrast, in the following example, the second conjunct can be understood as containing a silent occurrence of the secondary predicate.

\[ \text{O João não contou nenhum acontecimento pra Maria,} \]
\[ \text{the João} \ \text{NEG} \ \text{related} \ \text{no} \ \text{happening} \ \text{to the Maria bêbada e o Pedro não contou também.} \]
\[ \text{drunk.F and the Pedro} \ \text{NEG} \ \text{related also} \]
\[ \text{‘João didn’t relate any happening to Maria while she was drunk, and Pedro didn’t relate any happening to Maria while she was drunk.’} \]

Given the conclusion just reached—that ellipsis of the secondary predicate is not possible—it can be concluded that the second conjunct of (20) is not generated in the following fashion, with ellipsis of the secondary predicate.

\[ \text{não contou} + T [\text{VP} \, t_V \, \text{nenhum acontecimento} \ [\text{pra Maria}] \ [\text{bêbada}]] \]

Rather, it must be the case that ellipsis targets some constituent properly containing the secondary predicate, as illustrated below.

\[ \text{não contou} + T [\text{VP} \, t_V \, \text{nenhum acontecimento} \ [\text{pra Maria} \ \text{bêbada}]] \]

In (14) and (20), the main verb is tensed. Before returning to the issue of null indefinite objects, it is important to note that VVPE is likewise possible with infinitival verbs. The following set of examples does just this.

\[ \text{O João não vai fritar nenhum ovo pra Maria} \]
\[ \text{the João} \ \text{NEG} \ \text{will fry.INF no} \ \text{egg for the Maria bêbada e o Pedro não vai fritar nenhum ovo drunk.F and the Pedro} \ \text{NEG} \ \text{will fry.INF no} \ \text{egg pra} \ \text{Júlia.} \]
\[ = (a) {\text{João won’t fry an egg for Maria when she is drunk,}} \]
\[ {\text{and Pedro won’t fry an egg for Julia.’}} \]
\[ \neq (b) {\text{João won’t fry an egg for Maria when she is drunk,}} \]
\[ {\text{and Pedro won’t fry an egg for Julia when she is drunk.’}} \]
The example in (24) cannot be generated as in (25), for reasons that should be clear by now. Rather, it is generated under VVPE.4

\[
(25) \text{não vai+T [Asp fritar+Asp [VP t_fritar [nenhum ovo] [pra Maria] [bêbada]] também also]}
\]

\[
(26) \text{não vai+T [Asp fritar+Asp [VP t_fritar [nenhum ovo] [pra Maria]] também also]}
\]

Returning to the issue of null indefinite objects, it is important to be clear as to what is at issue, and what is not at issue. What is not at issue is whether null indefinite objects are sometimes generated under VVPE. Clearly, they can be. The following is a case in point.

\[
(27) \text{O João comprou uma mesa e o Pedro comprou ___ também also}
\]

\[
\text{‘João bought a table, and Pedro bought a table, too.’}
\]

\[
(28) \text{comprou+T [VP ty uma mesa] também also]}
\]

What is at issue is whether VVPE accounts for all instances of null indefinite objects. If it does not, some additional mechanism must be posited.

To preview, in what follows, I will argue that VVPE cannot, in fact, account for all instances of null indefinite objects; therefore, some additional mechanism must be posited. This mechanism, I will then argue, is argument ellipsis.

Consider the following three examples once again.

\[
(29) \text{O João vai mostrar um livro pra Maria e o Pedro vai mostrar ___ pra Júlia.
}\]

\[
\text{Pedro will show ___ to the Julia}
\]

\[
\text{‘João will show a book to Maria, and Pedro will show a book to Julia.’}
\]

\[4\text{For concreteness, I label the position to which the infinitive raises ‘Asp’}\]
(30) O João não vai fritar nenhum ovo pra Maria e o Pedro não vai fritar __ pra Júlia. 'João will not fry an egg for Maria, and Pedro will not fry an egg for Julia.'

(31) O João deu dois bolos pra Maria e o Pedro deu dois bolos a Júlia. 'João gave two cakes to Maria, and Pedro gave two cakes to Julia.'

The PPs are generated VP-internally. In order to say that these examples involve VVPE, it must be the case that the PPs are able to raise from their base position to a VP-external position.

(32) V PP [vp tv DP tr]

The following set of examples test whether PP-raising is possible.

(33) a. O João deu cuidadosamente duas taças pra Maria, mas o Pedro não deu ____ pra Júlia. 'João gave carefully two glasses to Maria, but the Pedro did not give ___ to Júlia.'
b. O João deu cuidadosamente duas taças pra Maria, mas o Pedro não deu ____ pra ela. 'João gave carefully two glasses to Maria, but the Pedro did not give ___ to her.'

Four speakers judged (33-a). For two, the sentence allows the reading in (34-a). For the other two, it allows the reading in (34-b), but not the reading in (34-a).

(34) a. Pedro did not give two glasses to Julia carefully
b. Pedro did not give two glasses to Julia.

As for (33-b), none of the four speakers accepts the reading in (35-a). That is, for all speakers, (33-b) only allows the reading in (35-b).

(35) a. Pedro did not give two glasses to her carefully
b. Pedro did not give two glasses to her.

The significance of these judgements is as follows. The reading in (34-a) cannot be generated as in (36-a), given that adverb ellipsis is impossible (see above). Hence, it must be generated as in (36-b), with PP-raising + VVPE. The conclusion, then, is that some, but not all, speakers allow PP-raising. Crucially, however, these speakers allow PP-raising only if the PP is contrastive. That this is so
is demonstrated by the fact that (33-b) does not allow the reading in (35-a)—a reading that would be generated if non-contrastive PPs could raise (see (37)). Thus: (i) some speakers do not allow PP-raising; (ii) others do, but only if the PP is contrastive.

(36) a. não deu+T [VP cuidadosamente [VP tv duas taças] pra Júlia]]
   b. não deu [XP [pra Júlia] [VP cuidadosamente [VP tv duas taças]]]

(37) não deu [XP [pra ela] [VP cuidadosamente [VP tv duas taças]]]

With these conclusions drawn, consider the following sentences again.

(38) O João vai mostrar um livro pra Maria e o Pedro vai mostrar ____ pra Júlia.
    'João will show a book to Maria, and Pedro will show a book to Julia.'

(39) O João não vai fritar nenhum ovo pra Maria e o Pedro não vai fritar ____ pra Júlia.
    'João will not fry an egg for Maria, and Pedro will not fry an egg for Julia.'

(40) O João deu dois bolos pra Maria e o Pedro deu ____ pra Júlia.
    'João gave two cakes to Maria, and Pedro gave ____ to Júlia.'

For the speakers who disallow PP-raising, these sentences cannot be generated under VVPE. Hence, for these speakers at least, there must be some additional method for generating null indefinite objects.

As to the speakers who allow contrastive PPs to raise, the sentences in (41), (45-b), and (47-b) demonstrate that it is necessary to posit an additional method for these speakers, too. Each of these sentences allows a null indefinite object. Importantly, the PP in
each sentence is non-contrastive, hence VP-internal. Thus, the indefinite construal is not generated under VVPE.\footnote{The sentences in (43), (45-c), and (47-c) are controls. They demonstrate that the indefinite construal becomes impossible when a definite pronoun substitutes for the null object. Thus, the null object’s indefinite interpretation cannot be attributed to $pro_{def}$.

\begin{itemize}
\item[(41)] O João deu duas taças pra Maria e o Pedro deu ____ pra ela também.
\item[(42)] There are two glasses, w and x, such that João gave w and x to Maria, and there are two glasses, y and z, such that Pedro gave y and z to Maria.
\item[(43)] O João deu duas taças pra Maria e o Pedro deu elas pra ela também.
\item[(44)] There are two glasses, x and y, such that João gave x and y to Maria and Pedro gave x and y to Maria.
\item[(45)] a. Pedro: O João vai comprar um livro pra Maria.
\item[(46)] (Reading of the dialogue in (45-a) and (45-b))
\item[(47)] a. Pedro: O João vai comprar três livros pra Maria.
\end{itemize}
b. **Bruno:** Que coincidência! O Paulo vai comprar
   _ pra ela também._
   _ for her too_
   ‘What a coincidence! Paulo will buy three books for her, too!’

c. **Bruno:** Que coincidência! #O Paulo vai comprar
   _ eles pra ela também._
   _ them for her too_
   ‘What a coincidence! Paulo will buy them for her, too!’

(48) (Reading of the dialogue in (47-a) and (47-b))

It will be the case that there are three books, x, y, and z, such that João buys x, y and z for Maria. It will be the case that there are three books, u, v, and w, such that Paulo buys u, v, and w for Maria.

It is therefore necessary to posit some additional method for these speakers, as well.

The following example lends further support to the conclusion that VVPE cannot generate all instances of null indefinite objects.

(49) O João não vai fritar _ nenhum ovo pra Maria_
   the João neg will fry.inf no egg for.the Maria
   bêbada e o Pedro não vai fritar _ pra Júlia.
   drunk.f and the Pedro neg will fry.inf _ for.the Julia
   ≠ (a) ‘João will not fry an egg for Maria\(_i\) when she\(_i\) is drunk, and Pedro will not fry an egg for Julia\(_j\) when she\(_j\) is drunk.’
   = (b) ‘João will not fry an egg for Maria\(_i\) when she\(_i\) is drunk, and Pedro will not fry an egg for Julia.’

If a PP-raising + VVPE derivation were possible, (49) would permit the reading under (a).

(50) não vai fritar [\(\text{XP} \text{ pra Júlia} \text{ [vp tv] nenhum ovo tpp bêbada]}\)]

The impossibility of the reading under (a) thus indicates that a PP-raising + VVPE derivation is not possible in (49). This being the case, some method other than VVPE must be posited to account for the null object’s indefinite construal.

The same pattern of judgements is found in (51).

(51) O João não contou _ nenhum acontecimento pra Júlia_
   the João neg related no happening to.the Julia
   bêbada e o Pedro não contou _ pra Patrícia.
   drunk.f and the Pedro neg related _ to.the Patrícia
   ≠ (a) ‘João will not relate any happening to Julia\(_i\) when she\(_i\) is drunk, and Pedro will not relate any happening to Patricia\(_j\) when she\(_j\) is drunk.’
= (b) ‘João will not relate any happening to Julia when she is drunk, and Pedro will not relate any happening to Patricia.’

Again, some method other than VVPE must be responsible for the null object’s indefinite construal.

As to what this method is, one possibility is that it is $pro_{<e,t>}$. However, null objects in BP receive interpretations that $pro_{<e,t>}$ fails to generate. Importantly, argument ellipsis succeeds in generating these readings, and of course, the indefinite readings reviewed above, as well. An analysis that posits $pro_{<e,t>}$ is therefore insufficiently general and must be rejected.

In (52-b), the null object is interpreted as *exatamente três livros* ‘exactly three books’, an indefinite with a modified numeral. Recall from Chapter 2 that such indefinites are type $<et,t>$ denoting expressions. The null object’s interpretation cannot, therefore, be generated under $pro_{<e,t>}$. Note, also, that replacing the null object with a definite pronoun results in unacceptability (due to the lack of a discourse antecedent for the definite pronoun). The null object cannot, therefore, be $pro_{def}$, either.

(52) a. **Pedro:** O João vai comprar *exatamente três livros* pra Maria.
   ‘João will buy exactly three books for Maria.’

b. **Bruno:** Que coincidência! O Paulo vai comprar *exatamente* pra ela também.
   ‘What a coincidence! Paulo will buy exactly three books for her, too!’

c. **Bruno:** Que coincidência! O Paulo vai comprar eles pra ela também.
   ‘What a coincidence! Paulo will buy them for her, too!’

(53) (Reading of the dialogue in (52-a) and (52-b))
It will be the case that there are exactly three books, $x$, $y$, and $z$, such that João buys $x$, $y$ and $z$ for Maria. It will be the case that there are exactly three books, $u$, $v$, and $w$, such that Paulo buys $u$, $v$, and $w$ for Maria.

On the other hand, argument ellipsis is capable of generating the null object’s interpretation. With ellipsis of the DP *exatamente*
thês livros ‘exactly three books’, the sentence’s interpretations is produced.

(54) O Paulo vai comprar [exatamente três livros] pra ela também.

Note, also, that the PP following the null object is non-contrastive. As such, the null object’s interpretation cannot be explained away as an instance of VVPE.

Argument ellipsis is, of course, also able to generate the indefinite construals discussed above, involving simple indefinites and non-modified plural indefinites. In (55-b), for instance, the null object is an elided occurrence of um livro ‘a book’; its interpretation is thus accounted for.

    ‘João will buy a book for Maria.’

    __ for her too
    ‘What a coincidence! Paulo will buy a book for her, too!’

c. O Paulo vai comprar [um livro] pra ela também

In the following section, I will argue that null subjects of infinitival clauses can denote expressions of type <ε,t>. Once again, then, an analysis in terms of pro<ε,t> is inappropriate.

I therefore conclude that BP does not permit pro<ε,t>. Hence, whenever an argument gives rise to an indefinite construal, it can be concluded that ellipsis is involved: either VVPE or argument ellipsis. If, moreover, it is concluded that a given null argument’s indefinite construal is not generated under VVPE (e.g., because of the presence of a non-contrastive PP), it can be concluded without further ado that the null argument is generated under argument ellipsis.

Summarizing, null objects in BP can be interpreted as indefinites. In some cases, the availability of an indefinite construal can be attributed to the fact that BP allows VVPE. In other cases, such is not possible. Hence, BP must have some method in addition to VVPE for generating indefinite null objects. Two candidates were considered: pro<ε,t> and argument ellipsis. Both candidates generate null objects interpreted as simple indefinites (e.g., um livro ‘a
book’) and as plural indefinites (e.g., *dois livros* ‘two books’). However, *pro<e,t>* , unlike argument ellipsis, undergenerates, in that it fails to generate instances in which the null object is construed as an expression of type <et,t>—for example, indefinites containing a modified numeral (e.g., *exatamente dois livros* ‘exactly two books’). On the basis of this observation, it was concluded that BP permits argument ellipsis of null objects.

Having concluded that BP permits argument ellipsis, I now use BP to argue in support of the account of argument ellipsis proposed in the previous chapter. Specifically, I argue that the constraint in (56), with locality defined as in (57), governs the distribution of argument ellipsis in BP.

(56) In languages in which argument ellipsis is permitted, argument ellipsis of an argument Arg is possible only if Arg and V are local.

(57) Locality (VO version):
V and Arg are local if and only if V immediately precedes Arg.

4.2 SUBJECTS OF SMALL CLAUSES AND SUBJECTS OF INFINITIVAL CLAUSES

In the present section, I argue that subjects of small clauses and subjects of infinitival clauses may undergo argument ellipsis in BP. The availability of argument ellipsis in these two cases lends initial support to the current account, according to which the distribution of argument ellipsis in BP is constrained by an immediate precedence requirement—namely, (57).

(58) a. V [SC Arg …]
b. V [TP Arg …]

Null subjects of small clauses admit indefinite construals.

(59) a. O João quer um quadro nessa parede e o Pedro quer __ naquela.
João wants a painting on this wall and the Pedro wants ___ on that ‘João wants a painting on this wall, and Pedro wants a painting on that wall.’
b. João wants it to be the case that there is a painting on this wall and Pedro wants it to be the case that there is a painting on that wall.

(60) a. O João quer dois quadros nessa parede e o Pedro quer ___ naquela.
    ‘João wants two paintings on this wall, and Pedro wants ___ on that wall.’

b. João wants it to be the case that there are two paintings on this wall and Pedro wants it to be the case that there are two paintings on that wall.

(61) a. O João não quer dois quadros nessa parede e o Pedro não quer ___ naquela.
    ‘João does not want two paintings on this wall, and Pedro does not want ___ on that wall.’

b. João does not want it to be the case that there are two paintings on this wall and Pedro does not want it to be the case that there are two paintings on that wall.

The null subject in these examples is therefore not pro
def. That this is so is confirmed by a comparison of the examples above with the following examples, in which the null subject has been replaced with a definite pronoun. For some speakers, the following examples are unacceptable. For others, they are acceptable, but only under a reading distinct from (59-b), (60-b), and (61-b). As such, it can be concluded that the null subjects in the examples above are not pro
def.6

(62) a. %O João quer um quadro nessa parede e o Pedro quer ele naquela.
    ‘João wants a painting on this wall, and Pedro wants it on that wall.’

b. There is a painting such that João wants that painting on this wall and Pedro wants that same painting on that wall.

---

6With regard to the sentences in (62-a)-(64-a), the difference between the two groups of speakers seems to stem from whether the indefinite in the first conjunct can be interpreted outside of the verb’s scope. For those speakers for whom it cannot, the indefinite fails to establish a discourse antecedent for the definite pronoun, which therefore remains without a fixed reference, resulting in unacceptability. For those speakers for whom it can, the indefinite succeeds in setting up a discourse antecedent for the definite pronoun; accordingly, the sentences are acceptable, with the pronouns referring back to this discourse referent.
At this point, two questions arise: (i) is the indefinite construal of small clause null subjects ever generated under VVPE? (ii) if yes, can all instances in which small clause null subjects receive an indefinite construal be generated under VVPE? If the indefinite construal cannot ever be generated under VVPE, or if it can, but only some of the times, some additional method for generating the indefinite construal must be available. In principle, this method could either be pro$_{<e,t>}$ or argument ellipsis. As already concluded above, the former option is insufficient and should not, therefore, be adopted. Thus, if some additional method for generating indefinite construals is required, this method is argument ellipsis.

In what follows, I argue that VVPE cannot account for all instances in which small clause null subjects are interpreted indefinitely. Hence, BP permits argument ellipsis of small clause subjects, as predicted by the present account of argument ellipsis.

The first question is whether the indefinite construal of small clause null subjects can ever be generated under VVPE. For this to be possible, it must be the case that the small clause’s predicate can raise out of the VP. For instance, for the indefinite construal of the null subject in (65) to be generated under VVPE, it must be the case that the predicate can raise out of the VP, as illustrated below. If it cannot raise to a VP-external position, VVPE is not what produces the null subject’s indefinite construal.
(65) O João quer um quadro nessa parede e o Pedro quer __ naquela.

‘João wants a painting on this wall, and Pedro wants a painting on that wall.’

(66) ... e o Pedro quer+T [XP naquela [VP tv [SC um quadro]]]

Thus, the question of whether VVPE is capable of producing the indefinite construal of null subjects amounts to the question of whether the predicate can raise out of the VP. The following examples test this possibility.

Consider (67). The impossibility of the reading under (b) demonstrates that the sentence cannot be generated as in (68), with ellipsis of the adverb. If such a derivation were possible, the sentence would allow the reading in (b).

(67) O João quer muito dois quadros nessa parede e o Pedro quer dois quadros nessa também.

= (a) ‘João very much wants that two paintings be on this wall, and Pedro wants that two paintings be on this wall, too.’

≠ (b) ‘João very much wants that two paintings be on this wall, and Pedro very much wants that two paintings be on this wall, too.’

(68) quer [muito] dois quadros nessa também

In (69), by contrast, the second conjunct can indeed be construed as containing the adverb. This construal is not due to a derivation such as (70), with ellipsis of the adverb, the DP, and the PP (or of the adverb and some constituent containing the DP and PP). After all, ellipsis of the adverb is impossible, as concluded above.

(69) O João quer muito dois quadros nessa parede e o Pedro quer também.

‘João very much wants that two paintings be on this wall, and Pedro very much wants that two paintings be on this wall, too.’

(70) quer [muito] [dois quadros] [nessa] também

Rather, the sentence’s interpretation is due to VVPE.
(71) quer+T [vp muito [vp tv [sc dois quadros nessa]]] também

What (69) shows is that *muito* is contained within the constituent targeted by VVPE. With this in mind, consider (72), in which the predicate of the small clause is contrastive. For two out of the three speakers consulted, the sentence permits the reading in (73-a). The third speaker permits only the reading in (73-b). In (74), by contrast, the only possible reading is (75-b).

(72) O João quer muito dois quadros nessa parede e
the João wants much two paintings on this wall and
o Pedro quer ___ naquela.
the Pedro wants ___ on that

(73) a. Pedro very much wants that two paintings be on that wall.
b. Pedro wants that two paintings be on that wall.

(74) O João quer muito dois quadros nessa parede e
the João wants much two paintings on this wall and
o Pedro quer ___ nessa também.
the Pedro wants ___ on this too

(75) a. Pedro very much wants that two paintings be on this wall, too.
b. Pedro wants that two paintings be on this wall, too.

With regard to (74), the impossibility of the reading under (b) demonstrates that predicate raising of non-contrastive predicates is impossible. If it were possible, it, in conjunction with VVPE, would generate the reading in (b), as illustrated below.

(76) quer+T [xp nessa [vp muito [vp tv [sc dois quadros t]]]]

As to (72), the judgements reported above indicate that some speakers allow predicate raising when the predicate is contrastive. Other speakers do not.

(77) quer+T [xp naquela [vp muito [vp tv [sc dois quadros t]]]]

In short, some, but not all, speakers allow predicate raising of contrastive predicates, but no speaker allows predicate raising of non-contrastive predicates.

Note that this pattern of judgements replicates the pattern reported above, with respect to raising of indirect object PPs (see (33), above). Recall that some, but not all, speakers allow PP-raising when the indirect object PP is contrastive, but no speaker allows it
when the PP is non-contrastive. Generalizing over these two sets of cases—indirect object PPs and predicates of small clauses—we can say that the sort of raising under consideration here is impossible for one group of BP speakers; for the other group, it is possible, but only if the raised category is contrastive.

(78)  

a. *V XP\textsubscript{non-contrastive} [vp tv (w) t\textsubscript{XP} (w)]  
b. %V XP\textsubscript{contrastive} [vp tv (w) t\textsubscript{XP} (w)]

Note, in passing, that the derivations in (78) are identical to VP-ellipsis analyses of pseudogapping (e.g., Lasnik, 1995), notwithstanding the fact that the main verb has raised out of the ellipsis site. We might, therefore, refer to the sort of derivation under consideration here as ‘verb-stranding pseudogapping’ and frame the observation as follows:

(79)  

Some speakers of BP allow verb-stranding pseudogapping, provided the remnant is contrastive; others do not.

Of course, it is a general requirement on pseudogapping that the remnant be contrastive. Thus, a more concise statement is possible.

(80)  

Some speakers of BP allow verb-stranding pseudogapping; others do not.

Returning to main thread, the preceding examination into the availability of predicate raising has demonstrated that some speakers of BP do not permit predicate raising. For such speakers, the indefinite construal of small clause null subjects is therefore not due to VVPE. Hence, some independent method for generating the indefinite construal is necessary. This method is argument ellipsis.

As for the speakers who allow predicate raising of contrastive predicates, the following example demonstrates that these speakers likewise allow argument ellipsis of small clause null subjects. As with the examples in (59-a)-(61-a), the null subject in the following example can be construed indefinitely. Unlike the previous examples, however, the predicate is non-contrastive. As such, the null subject is not generated through VVPE but through argument ellipsis, as illustrated in (82).

(81)  

a. O João quer dois quadros nessa parede e o Pedro quer ____ nessa também.  

b. João wants two paintings on this wall and the Pedro wants ___ on this too.
4.2 SUBJECTS OF SMALL CLAUSES AND SUBJECTS OF INFINITIVAL CLAUSES

‘João wants two paintings on this wall, and Pedro wants two paintings on this wall, too.’

b. João wants it to be the case that there are two paintings on this wall, and Pedro wants it to be the case that there are two paintings on this wall, too.’

(82) quer [dois quadros] nessa também

In summary, for both groups of BP speakers, it can be concluded that argument ellipsis can target subjects of small clauses, as predicted by the present account.

Before turning to subjects of infinitival clauses, note that argument ellipsis is possible in the following example. In this example, the verb does not appear to immediately precede the argument. Thus, the availability of argument ellipsis in (83) would appear to contradict the proposal that immediate precedence is required.

(83) a. O João quer muito dois quadros nessa parede e o Pedro quer muito ____ nessa também.

b. João very much wants it to be the case that there are two paintings on this wall, and Pedro very much wants it to be the case that there are two paintings on this wall, too.’

However, recall Ackema and Neeleman (2004)’s model of the syntax-phonology interface, according to which linearization precedes the deletion of copies.

(84) a. Linearization of syntactic terminals

b. Initial prosodic phrasing, on the basis of syntactic information

c. Application of checking rules

d. Deletion of copies

e. Application of context-sensitive allomorphy rules

f. Spell-out of terminals

Recall, furthermore, that the locality constraint on argument ellipsis proposed in the present study holds directly following step (84-a) — hence, prior to the deletion of copies. At this point in the derivation, the verb’s copy is still present.

(85) ... e o Pedro quer+T [VP muito [VP quer [SC [dois quadros] nessa]]] também
Hence, the argument is indeed local to \( V \), and the availability of argument ellipsis in (83) is expected.

Turning now to subjects of infinitival clauses, consider the following example, which demonstrates that null subjects of infinitival clauses can be construed quantificationally—in the present example, as cada livro ‘each book’.

(86) Context: Havia uma feira de livros infantis. Cada livro foi lido duas vezes: uma vez pelo seu autor e uma vez pelo seu ilustrador.

Context: There was a children’s book fair. Each book was read twice: once by its author and once by its illustrator.

(87) a. A Maria viu cada livro ser lido pelo seu autor e a Júlia viu __ ser lido pelo seu ilustrador.

‘Maria saw each book read by its author, and Julia saw __ read by its illustrator.’

b. For each book, \( x \), Maria saw \( x \) read by \( x \)’s author, and for each book, \( y \), Julia saw \( y \) read by \( y \)’s illustrator.

This reading cannot be generated under prodef. Replacing the null subject with a singular pronoun produces an unacceptable sentence, as the pronoun lacks a determinate entity to refer to. Replacing the null subject with a plural pronoun likewise produces an unacceptable sentence, due to the number mismatch between the plural pronoun and ser and lido. The illicitness of number mismatch is demonstrated by (89).

(88) a. #A Maria viu cada livro ser lido pelo seu autor e a Júlia viu ele ser lido pelo seu ilustrador.

‘Maria saw each book read by its author, and Julia saw it read by its illustrator.’

b. *A Maria viu cada livro ser lido pelo seu autor e a Júlia viu eles ser lido pelo seu ilustrador.

‘Maria saw each book read by its author, and Julia saw them read by their illustrator.’
Thus, the null subject is not pro. By contrast, argument ellipsis succeeds in generating the quantificational construal. With ellipsis of cada livro ‘each book’, the reading in (87-b) is produced.

In the present section, I argued in support of the present account of argument ellipsis, according to which the argument must be immediately preceded by V, by examining the following two contexts: subjects of small clauses and subjects of infinitival clauses.

In both contexts, the subject is immediately preceded by V. Therefore, it is expected that the subject should be able to undergo argument ellipsis. As argued above, this expectation is borne out.

Before closing the present section, it should be noted that BP allows subjects of passive verbs to occur in VS order, in addition to SV order.\(^7\)

As such, one might wonder whether the null subject in (87-a) is in situ.

If it is, the present account would still predict argument ellipsis to be possible, given that the subject would be immediately preceded by the downstairs verb. The example would not, however, instantiate the configuration in (91-b), in which an argument is in the leftmost position in its clause and is licensed under immediate precedence by the verb in the higher clause.

\(^7\)Similarly, subjects of unaccusative verbs may occur in either VS or SV order. Subjects of transitive verbs, on the other hand, may only occur in SV order. Similarly so for subjects of unergative verbs, notwithstanding sentences involving locative inversion. See Silva (2001) for much discussion.
The following pair of examples demonstrates that the null subject in (87-a) cannot remain in situ. It must raise to a clause initial position. Thus, the example in (87-a) does indeed instantiate the configuration in (91-b).

(94) a. A Maria viu cada livro ser lido pelo seu autor. the Maria saw each book be read by.the poss author
   b. *A Maria viu ser lido cada livro pelo seu autor. the Maria saw be read each book by.the poss author
   ‘Maria saw each book read by its author.’

4.3 SUBJECTS OF FINITE CLAUSES

Particularly strong evidence that immediate precedence by V is required comes from sentences involving passive verbs. As noted above, subjects of passive verbs may occur either preverbally or postverbally.

(95) a. Nenhum ovo vai ser fritado pra María. no egg will be fried for.the María
   ‘No egg will be fried for María.’
   b. Não vai ser fritado nenhum ovo pra María. neg will be fried no egg for.the María
   ‘No egg will be fried for María.’

The present account of argument ellipsis predicts that subjects of passive verbs will be able to elide, provided they are postverbal. This prediction is borne out.

As a preliminary, note that (95-a) and (95-b) differ from one another in two respects: (i) the position of the subject vis-à-vis the verb; (ii) the presence versus the absence of não. Note, moreover, that não is obligatorily absent when the subject is preverbal. Furthermore, it is obligatorily present when the subject is postverbal.

(96) a. *Nenhum ovo não vai ser fritado pra María.
   b. *Vai ser fritado nenhum ovo pra María.

Bearing these points in mind, consider the following examples. In (97), the null subject is preverbal, as can be inferred from the fact that não is absent. The sentence is ungrammatical, indicating that argument ellipsis is not possible. The example in (98) is a control. It is identical to (97), except that the null subject has been replaced with an overt occurrence of nenhum ovo. This sentence is acceptable, which demonstrates that the unacceptability of (97) is
indeed due to the omission of the subject. In (99), the null subject is postverbal—note the presence of não—and argument ellipsis is possible. That the null subject is indeed generated under argument ellipsis is confirmed by the conjunction of two sets of facts. First, (99) is synonymous with (100), in which the null subject is replaced with an overt occurrence of *nenhum ovo* ‘no egg’. The synonymity of the two examples is what is expected if the null subject in (99) is an elliptical occurrence of *nenhum ovo*. Second, replacing the null subject with a definite pronoun results in unacceptability, as (101) and (102) illustrate. Thus, it is not merely the case that the null subject can be analyzed as being generated under argument ellipsis; it must be so analyzed.

(97) *Na segunda-feira, nenhum ovo foi fritado pra Maria.* Na terça-feira, __ foi fritado pra Júlia.

(98) *Na segunda-feira, nenhum ovo foi fritado pra Maria.* Na terça-feira, nenhum ovo foi fritado pra Maria.

(99) *Na segunda-feira, não foi fritado nenhum ovo pra Maria.* Na terça-feira, não foi fritado __ pra Maria.

(100) *Na segunda-feira, não foi fritado nenhum ovo pra Maria.* Na terça-feira, não foi fritado nenhum ovo pra Maria.

---

8The unacceptability of the sentences with a definite pronoun stems, at the very least, from the fact that the pronoun lacks a discourse antecedent to refer to. When a plural pronoun is used in conjunction with singular agreement, the agreement mismatch is an additional factor producing unacceptability.
'On Monday, no egg was fried for Maria. On Tuesday, no egg was fried for Julia.'

(101) a. Na segunda-feira, não foi fritado [nenhum on.the Monday, NEG was.SG fried.SG [no ovo] pra Maria. *Na terça-feira, não foi egg].SG for.the Maria. on.the Tuesday, NEG was.SG fritado ele pra Júlia.

b. Na segunda-feira, não foi fritado [nenhum on.the Monday, NEG was.SG fried.SG [no ovo] pra Maria. *Na terça-feira, ele não egg].SG for.the Maria. on.the Tuesday, it NEG foi fritado pra Júlia.

That being said, it is worth considering an alternative account: namely, that BP does not allow subjects of finite clauses to undergo argument ellipsis, and that in cases in which they seem to do so, what is in fact occurring is VVPE, not argument ellipsis. Under this alternative, the example in (99) would be generated as follows.

(102) a. Na segunda-feira, não foi fritado [nenhum on.the Monday, NEG was.SG fried.SG [no ovo] pra Maria. *Na terça-feira, não egg].SG for.the Maria. on.the Tuesday, NEG foi/foram fritado/fritados eles pra Júlia.

b. Na segunda-feira, não foi fritado [nenhum on.the Monday, NEG was.SG fried.SG [no ovo] pra Maria. *Na terça-feira, eles não egg].SG for.the Maria. on.the Tuesday, they NEG foi/foram fritado/fritados pra Júlia.

More generally, this alternative would account for the asymmetry between pre- and post-verbal subjects. Only that latter are VP-internal; hence only the latter may be elided by VVPE.

This alternative must be rejected, however. Recall, first of all, that there are two classes of BP speakers: those who allow PP-raising when the PP is contrastive, but not when it is non-contrastive; and those who never allow PP-raising. The sentences in (97)-(102)
were judged by two speakers—one from each class. Crucially, the judgement in (99) holds not only for the speaker who allows contrastive PPs to raise but also for the speaker who does not. For the latter speaker, the PP is necessarily VP-internal, meaning that the null subject cannot be generated under VVPE. Rather, it must be generated under argument ellipsis.

A second reason for rejecting this alternative is as follows: postverbal null subjects give rise to indefinite construals when the PP is non-contrastive. A VVPE analysis cannot account for this, since non-contrastive PPs are VP-internal.

The following examples demonstrate that postverbal subjects admit indefinite construals when the PP is non-contrastive. In (104), the null subject is preverbal, and the sentence is ungrammatical. The example in (105), which is a control, demonstrates that the ungrammaticality of (104) is indeed due to the omission of the subject. In (106), the subject is postverbal and the sentence is grammatical. The null subject’s indefinite interpretation indicates that the null subject is indeed generated under argument ellipsis, as depicted in (107).

(104) *Os meninos acham que nenhum ovo vai ser fritado
the boys think that no egg will be fried
pra Maria e as meninas também acham que ___
for the Maria and the girls also think that ___
vai ser fritado pra ela.
will be fried for her
(intended) ‘The boys think that no egg will be fried for Maria, and the girls also think that no egg will be fried for her.’

(105) Os meninos acham que nenhum ovo vai ser fritado
the boys think that no egg will be fried
pra Maria e as meninas também acham que
for the Maria and the girls also think that
nenhum ovo vai ser fritado pra ela.
no egg will be fried for her

9For one of the two speakers consulted, (106) was somewhat degraded. Still, the sentence was notably better than (104), which is completely unacceptable. (The speaker described (104) as “horrible” and (106) as “far better than [[104]]”).

As to why (106) is somewhat degraded for this speaker, I speculate that this is due to the inclusion of a considerable amount of potentially elidable material. Thus, the speaker noted that he would express (106) as follows.

(i) Os meninos acham que não vai ser fritado nenhum ovo pra Maria e as meninas também acham que não.
‘The boys think that no egg will be fried for Maria, and the girls also think that no egg will be fried for her.’

(106) Os meninos acham que não vai ser fritado nenhum ovo
       the boys think that NEG will be fried no egg
       pra Maria e as meninas também acham que não
       for the Maria and the girls also think that NEG
       vai ser fritado ___ pra ela.
       will be fried ___ for her

       ‘The boys think that no egg will be fried for Maria, and the girls also think that no egg will be fried for her.’

(107) ... e as meninas também acham que não vai ser fritado
       [nenhum ovo] pra ela

In sum, BP permits argument ellipsis of subjects of finite clauses under VS order, but not under SV order.

Before closing the section, consider the following data, which provide additional evidence that preverbal subjects of finite clauses cannot elide. Note that the verb in the following examples is transitive, and recall that transitive verbs in BP do not permit VS order. This being so, it is not possible to construct minimal pairs for these examples involving VS order. I include these data here nonetheless, as they support the claim (albeit not as strongly as the data above) that argument ellipsis in BP requires immediate precedence.

The null subject in the following examples cannot be understood as um caminhão ‘a truck’, as would be the case if it were possible to generate it under argument ellipsis (see (110) and (111)). Rather, it can only be understood as ele ‘it’, referring back to the truck mentioned in the first conjunct.  

(108) a. Um caminhão atropelou o João.
       a truck ran.over the João
       ‘A truck ran João over.’

       b. ___ Também atropelou o Pedro.

       c. ___ Atropelou o Pedro também
          ___ ran.over the Pedro also

       (a) = ‘It (i.e., the truck that ran João over) also ran Pedro over.’
       (b) ≠ ‘A truck (possibly distinct from the truck that ran João over) also ran Pedro over.’

10 Indeed, for one of the four speakers who judged (108), (108-b) and (108-c) were simply ungrammatical. As for (109), the judgement reported in the body of the text is due to three of the four speakers. For the fourth speaker (incidentally, the same one who rejected (108-b) and (108-c)), the sentence allowed the reading under (a), in addition to the reading under (b). This one judgement notwithstanding, the judgements on (108) and (109) all point to the same conclusion: that the null subject cannot be generated under argument ellipsis.
4.4 The Relevance of Brazilian Portuguese to Other Accounts of Argument Ellipsis

In the second chapter, I discussed the AAT account of argument ellipsis, noting that this account makes the following predictions concerning the distribution of argument ellipsis.

(113) AAT, Prediction #1:
Expressions which never function as a goal for $\phi$-feature agreement (e.g., PPs, adjuncts, secondary predicates) are always able to undergo LF-copying (provided no independent constraint on ellipsis is violated).

(114) AAT, Prediction #2:
Visible agreement between the LF-copied DP and some functional head in the elliptical sentence is impossible. (In short, visible agreement blocks argument ellipsis.)
I also discussed Cheng (2013)’s account of argument ellipsis, which makes the following predictions vis-à-vis the distribution of argument ellipsis.

(115) Cheng (2013), Prediction #1:
Argument ellipsis of arguments in specifier position is impossible, notwithstanding those cases in which argument ellipsis is derivable through a null topic analysis.

(116) Cheng (2013), Prediction #2:
Argument ellipsis of arguments situated internal to the complement of a phase head is impossible, notwithstanding those cases in which argument ellipsis is derivable through a null topic analysis.

Finally, I discussed Tomioka (2003)’s and Bošković (2016, 2017)’s accounts, which produce the following predictions.

(117) Tomioka (2003), Prediction:
If argument ellipsis (in a given language) is to be analyzed in terms of $\text{pro}_{<e,t>}$, argument ellipsis (in that language) is semantically restricted: the elided argument (i.e., the null pronoun) can denote an expression of type $e$ (via the iota operation) or of type $<e,t>$, but not of type $<e,t,t>$.

(118) Bošković (2016, 2017), Prediction:
Argument ellipsis does not target expressions of type $<e,t,t>$.

In the present section, I argue that these predictions are not borne out.

First, consider the predictions made by the AAT. Recall that the AAT analyzes argument ellipsis in terms of LF-copying. LF-copying may apply to any argument in any language, provided the LF-copied argument is not called upon to serve as a goal for $\phi$-feature agreement in the elliptical clause. Since the argument is already inactive by the time LF-copying takes place, the argument would be unable to serve as a goal, and the probe’s uninterpretable $\phi$-features would fail to be deleted, causing the derivation to crash.

Recall, also, that proponents of the AAT do not restrict LF-copying to arguments. In principle, LF-copying may target any type of expression.

With these points in mind, consider the prediction under (113). There is a large class of expressions that never function as goals for $\phi$-feature agreement. Since the AAT posits the Activation Condition as its only constraint on LF-copy, the AAT predicts that
LF-copy should apply freely to the members of this class. This prediction is not borne out by the data.

Adjuncts do not function as goals for $\phi$-feature agreement. The AAT therefore predicts that LF-copying should freely apply to adjuncts. For instance, LF-copying should be able to copy ‘loudly’ into (119-b), as illustrated in (120)-(121).

(119) a. John read the poem loudly.
   b. Mary didn’t read the poem.

(120) Antecedent Sentence
   a. John read the poem loudly.

(121) Elliptical sentence
   a. Mary didn’t read the poem ___
   b. Mary didn’t read the poem loudly (From (121-a), via LF-copy)

However, (119-b) does not mean, “Mary didn’t read the poem loudly”, as would be the case if the derivation in (120)-(121) were possible; it simply means, “Mary didn’t read the poem”. The AAT’s prediction that adjuncts undergo LF-copying is incorrect.

Indeed, English is not alone in disallowing adjunct ellipsis. Adjunct ellipsis seems to be something that is generally impossible, cross-linguistically—contrary to what the AAT would lead us to expect.

(122) Bangla
   a. Ram du ghOnTa dhore Chomsky-r notun
      Ram two hour taking Chomsky-GEN new
      lekha-Ta poRio.
      paper-CLF read-PST.3
      ‘Ram read Chomsky’s new paper for two hours.’
   b. Raj-o lekha-Ta poRio
      = (a) ‘Raj also read the paper.’
      ≠ (b) ‘Raj also read the paper for two hours.’
      (Simpson, Choudhury, and Menon, 2013)

(123) Brazilian Portuguese
   a. O João deu cuidadosamente duas taças pra
      the João gave carefully two glasses to.the
      Maria, mas o Pedro não deu duas taças pra
      Maria, but the Pedro NEG gave two glasses to
      ela.
      her
= (a) ‘João gave two glasses to Maria carefully, but Pedro did not give two glasses to her.’
\ne (b) ‘João gave two glasses to Maria carefully, but Pedro did not give two glasses to her carefully.’

(124) Chinese

a. Zhedui fufu wei-le butongde livou cizhi, nadui this couple for different reason resign that fufu ye cizhi. couple also resign
= (a) ‘This couple resigned for different reasons, and that couple also resigned.’
\ne (b) ‘This couple resigned for different reasons, and that couple also resigned for different reasons.’

(Li, 2002)

(125) Hindi

a. Ram-ne Chomsky-ka naya lekh do baar Ram-ERG Chomsky-GEN new writing two time paha. read-PST.M.SG
‘Ram read the new paper by Chomsky twice.’
b. Raj-ne-bhi vo lekh parha. Raj-ERG also that writing read-PST.M.SG
= (a) ‘Raj also read the paper.’
\ne (b) ‘Raj also read the paper twice.’

(Simpson, Choudhury, and Menon, 2013)

(126) Japanese

Context: Taroo and Hanako washed their parents’ cars to get allowance. Taroo was thorough in his work while Hanako was not.

a. Taroo-wa teineini kuruma-o arat-ta. Taroo-TOP carefully car-ACC wash-PST
‘Taroo washed the car carefully’
‘Hanako did not wash the car. The car that Hanako washed was dirty.’

(Funakoshi, 2016)

(127) Korean

a. Chelswu-nun i pangpep-ulo ikiessta. Chelswu-TOP this-way-in won
‘Chelswu won this way.’
b. Mina-to ikiessta. Mina-also won
There is evidence of the relevance of Brazilian Portuguese to other accounts of argument ellipsis. Consider (129):

(129) O João mostrou essa jóia para duas pessoas, mas o Pedro não mostrou ela ___.
(Lit.) ‘João showed this jewel to two people, but Pedro didn’t show it.’

LF-copying para duas pessoas ‘to two people’ into the second conjunct would produce Reading A. This reading contrasts with Reading B, which would be produced if the null PP in the second conjunct were a PP-pro, meaning ‘to them’. Reading A also contrasts with Reading C, in which the null PP is interpreted as a variable, existentially bound within the scope of negation (see (131)).

(130) a. Reading A: ... but Pedro did not show it to two people
b. Reading B: ... but Pedro did not show it to them
c. Reading C: ... but Pedro did not show it to anyone

(131) It is not the case that there exists an x, x a person, such that Pedro showed it to x

Out of the six speakers consulted, one indicated that (129) permits Reading A and five indicated that it does not; rather, it permits only Reading C (for four speakers) or only Reading B (for one speaker). The judgement of the first speaker notwithstanding, the
impossibility of Reading A indicates that BP does not permit LF-copying of PP-arguments.\textsuperscript{11}

LF-copy cannot target PP-arguments in Chinese, either.

\begin{enumerate}[a.]
\item Zhangsan \textit{[PP zai san-zhang zhuozi shang] fang} Zhangsan at three-CLF table on put candles
\end{enumerate}
\begin{enumerate}[b.]
\item Lisi \textit{zeshi} ___ fang hua.
\end{enumerate}

‘Zhangsan put candles on three tables.’

\begin{enumerate}[b.]
\item Lisi whereas ___ put flowers
\end{enumerate}

(Lit.) ‘Whereas Lisi put flowers.’

\begin{flushright}
(Cheng, 2013, p. 224, fn. 105)
\end{flushright}

If the PP in (132-a) could be LF-copied into (132-b), (132-b) would mean, ‘whereas Lisi put flowers on three tables’, where the three tables Lisi put flowers on may be different from the three tables Zhangsan put candles on. Cheng (2013) reports that (132-b) does not allow this reading, which indicates that Chinese does not allow LF-copy of PP-arguments.\textsuperscript{12}

English does not allow LF-copying of PPs, either.

\textsuperscript{11}According to the present account of argument ellipsis, BP is expected to permit ellipsis of argumental PPs in precisely those cases in which the PP is immediately preceded by V. One class of examples to consider are examples in which the PP occurs within a ditransitive VP, as in (129). If ditransitive VPs in BP are necessarily left-branching, the current account predicts that the PP cannot elide.

\begin{enumerate}[i.]
\item \textit{[VP [\textit{V} V DP ] PP ]}
\end{enumerate}

However, if ditransitive VPs in BP are optionally or necessarily right-branching, the current account predicts that the PP can elide, given that the lower occurrence of V immediately precedes the PP.

\begin{enumerate}[ii.]
\item \textit{[\textit{V} \textit{V}i [VP DP [\textit{V} \textit{V}i PP ]]]}
\end{enumerate}

The following example provides initial indication that BP permits right-branching ditransitive VPs. Of the four speakers consulted, all four permitted the anaphor to be bound by the direct object. It should be noted, though, that for two of the speakers, it was difficult to construe the anaphor as bound by the direct object; for these speakers, there was a strong preference for the anaphor to be bound by the subject.

\begin{enumerate}[iii.]
\item O \textit{João mostrou o Pedro para si mesmo (no espelho).} the \textit{João showed the Pedro to si EMPATHIC (in.the mirror)} ‘João showed Pedro\textsubscript{0} to himself\textsubscript{0} (in the mirror).’
\end{enumerate}

If BP indeed permits right-branching ditransitive VPs, then the current account incorrectly predicts that PPs in ditransitive structures may undergo argument ellipsis—an incorrect prediction, as the example in (129) suggests.

A second case to consider are sentences in which a verb takes a single PP complement. Here, V clearly immediately precedes the PP, which means that PP-ellipsis should be possible.

\begin{enumerate}[iv.]
\item O \textit{João depende [PP deste remédio].} the \textit{João depends of.this medicine} ‘João depends on this medicine.’
\end{enumerate}

This is a class of examples that I have yet to examine in sufficient detail.

\textsuperscript{12}Cheng does not indicate what reading (132-b) does allow, only what reading it does not allow.
4.4 The Relevance of Brazilian Portuguese to Other Accounts of Argument Ellipsis

(133) *John handed a book to his friend, but Bill didn’t hand a book ___.

In (133), the PP-argument is omitted. The ungrammaticality of this sentence demonstrates that English disallows PP-ellipsis.

Secondary predicates do not function as goals for \( \phi \)-feature agreement, either. Again, the expectation is that they should be able to undergo LF-copy. Again, the expectation is not borne out.

Consider the following example.

(134) Brazilian Portuguese

a. O João beijou a Maria bêbada, mas o Pedro
   the João kissed the Maria drunk.F, but the Pedro
   não beijou ela.
   NEG kissed her
   = (a) ‘João kissed Maria while she was drunk, but
   Pedro did not kiss her.’
   \( \neq \) (b) ‘João kissed Maria while she was drunk, but
   Pedro did not kiss her while she was drunk.’

The second conjunct does not allow the reading that would be produced were it possible to LF-copy the secondary predicate into the second conjunct. That the second conjunct does not permit this reading is reinforced by the following pair of examples. Both examples involve the continuation _ele beijou ela sóbria_ ‘he kissed her while she was sober’. In (135-a), the continuation is felicitous; in (135-b), it produces a contradiction. The contradictory status of the continuation in (135-b) demonstrates that the second conjunct in (135-b) does not contain a silent copy of the secondary predicate.

(135) a. O João beijou a Maria bêbada, mas o Pedro
   the João kissed the Maria drunk.F, but the Pedro
   não beijou ela bêbada ... ele beijou ela sóbria.
   NEG kissed her drunk.F ... he kissed her sober.F
   ‘João kissed Maria while she was drunk, but Pedro
   didn’t kiss her while she was drunk ... he kissed her
   while she was sober.’

b. #O João beijou a Maria bêbada, mas o Pedro
   the João kissed the Maria drunk.F, but the Pedro
   não beijou ela ... ele beijou ela sóbria.
   NEG kissed her ... he kissed her sober.F
   ‘João kissed Maria while she was drunk, but Pedro
   didn’t kiss her ... he kissed her while she was sober.’

The following examples provide further evidence that BP disallows LF-copying of secondary predicates. In each of the (a)-sentences below, the second conjunct does not permit the reading that would
be produced through LF-copying of the secondary predicate. The (b)- and (c)-examples jointly provide additional evidence that LF-copying of the secondary predicate is indeed impossible.

(136)  Brazilian Portuguese
a.  O João comeu uma picanha mal passada, mas o Pedro não comeu uma picanha.
   = (a) ‘João ate a steak rare, but Pedro did not eat a steak.’
   ≠ (b) ‘João ate a steak rare, but Pedro did not eat a steak rare.’

b.  O João não contou nenhum acontecimento pra Júlia bêbada e o Pedro não contou nenhum acontecimento pra Patricia.
   = (a) ‘João didn’t relate any happening to Julia while Julia was drunk, and Pedro didn’t relate any happening to Patricia.’
   ≠ (b) ‘João didn’t relate any happening to Julia while Julia was drunk, and Pedro didn’t relate any happening to Patricia while Patricia was drunk.’

c.  O João não vai fritar nenhum ovo pra Maria bêbada e o Pedro não vai fritar nenhum ovo pra Júlia.
   = (a) ‘João will not fry an egg for Maria while Maria is drunk, and Pedro will not fry an egg for Julia.’
   ≠ (b) ‘João will not fry an egg for Maria while Maria is drunk, and Pedro will not fry an egg for Julia while Julia is drunk.’

Consider, now, the second prediction.

(137)  AAT, Prediction #2:
Visible agreement between the LF-copied DP and some functional head in the elliptical sentence is impossible. (In short, visible agreement blocks argument ellipsis.)

If a probe agrees with some goal following spell out, the output of this probe-goal dependency will not feed phonology—hence, will not produce visible agreement. Visible agreement between the LF-copied DP and some functional head in the elliptical sentence is therefore impossible. Since the probe-goal dependency between these
two items does not take place until after spell out, the dependency will not feed phonology.\textsuperscript{13}

Independent of this, if the LF-copied DP has already been rendered inactive prior to LF-copying, it will not be able to agree with any functional head in the elliptical clause; hence, it will not be able to produce visible agreement.

The following examples demonstrate that visible agreement does not block argument ellipsis in BP. In each example, the elided DP agrees with one or more functional heads in the elliptical clause. In \textcircled{138} (repeated from above), the elided DP visibly agrees with the past participle and with T.\textsuperscript{14} In \textcircled{139} (also repeated from above), it visibly agrees with the past participle. In \textcircled{140-a}, the null argument likewise visibly agrees with the past participle. Note that the null argument is interpreted as an indefinite, which confirms that the null argument is indeed generated under argument ellipsis. Finally, the null argument in \textcircled{141} visibly agrees with the secondary predicate. Note, again, the null argument’s indefinite construal.

\textcircled{138} Na segunda-feira, não foi fritad-o nenhum ovo pra Maria. Na terça-feira, não foi fritad-o ___ pra Júlia. ‘On Monday, no egg was fried for Maria. On Tuesday, no egg was fried for Julia.’

\textcircled{139} A Maria viu cada livro ser lido pelo seu autor e a Júlia viu ___ ser lido pelo seu ilustrador. ‘Maria saw each book read by its author, and Julia saw each book read by its illustrator.’

\textcircled{140} a. O João nunca viu nenhuma sonata ser tocada no banjo e o Pedro nunca viu ___ ser tocada no violão. ‘João has never seen a sonata played on the banjo, and Pedro has never seen a sonata played on the guitar.’

\textsuperscript{13}See chapter 2 for further discussion.

\textsuperscript{14}The gloss ‘\textsc{prt}’ stands for ‘preterit’.
b. There is no x, x a sonata, such that João has seen x played on the banjo, and there is no y, y a sonata, such that Pedro has seen y played on the guitar.

(141) a. O João serviu uma picanha bem passada e o Pedro serviu dois passados.
   ‘João served a steak well done, and Pedro served two steaks.

b. There is a steak, x, such that João served x well done, and there is a steak, y, such that Pedro served y rare.

c. O João serviu duas picanhas bem passadas e o Pedro serviu mal passadas.
   ‘João served two steaks well done, and Pedro served two steaks rare.’

d. There are two steaks, w and x, such that João served w and x well done, and there are two steaks, y and z, such that Pedro served y and z rare.’

Let us now consider Cheng (2013)’s account of argument ellipsis. Recall that Cheng (2013)’s account produces the following predictions.

(142) Cheng (2013), Prediction #1: Argument ellipsis of arguments in specifier position is impossible, notwithstanding those cases in which argument ellipsis is derivable through a null topic analysis.

(143) Cheng (2013), Prediction #2: Argument ellipsis of arguments situated internal to the complement of a phase head is impossible, notwithstanding those cases in which argument ellipsis is derivable through a null topic analysis.

The following examples demonstrate that BP allows argument ellipsis of specifiers and of arguments internal to phase head complements. The distribution of argument ellipsis in BP thus not only argues against Cheng (2013)’s specific account of argument ellipsis, but also against any account that seeks to restrict argument ellipsis to complements of phase heads.

First, consider the following example, containing an object-oriented depictive.

(144) O João nunca comeu nenhuma picanha bem passada.
   ‘João never ate a steak well done.’
As has been known since Williams (1980), there is a c-command requirement on predication: arguments must c-command the predicate with which they are associated. Therefore, the structure of (144) cannot be as follows, since the object fails to c-command the secondary predicate.

(145) \[VP [v' tv [nenhuma picanha] ] [bem passada]]

Nor can the structure be as follows, since the object fails to c-command the verb.

(146) \[VP tv [SC [nenhuma picanha] [bem passada]]]

Rather, the structure is as follows, with the object c-commanding both the verb and the depictive.  

(147) \[VP [nenhum picanha] [v' tv [bem passada]]

The following example demonstrates that specifiers can undergo argument ellipsis.

(148) a. O João nunca comeu nenhum picanha bem
    the João never ate no steak well
    passada e o Pedro nunca comeu ___ mal
    passed and the Pedro never ate ___ poorly
    passada.
    passed
    ‘João never ate a steak well done, and Pedro never ate
    a steak rare.’

b. There is no x, x a steak, such that João ate x well done,
    and there is no y, y a steak, such that Pedro ate y rare.’

Note the object’s indefinite construal, which confirms that the object is not prodef. Note, moreover, that negative indefinites make for poor topics in BP. Thus, the example is not generated as in (150), with the use of a null topic. Rather, it is generated under argument ellipsis.

(149) *Nenhum livro, o João não deu pra Maria.
    no book, the João NEG gave to the Maria
    ‘No book, João gave to Maria.’
In the following example, argument ellipsis targets the subject of a small clause.

(151)  a. O João não quer nenhum quadro nessa parede.  
and the Pedro não quer __ naquela.  
‘João does not want any painting to be on this wall, 
and Pedro does not want any painting to be on that wall.’

The argument is internal to the complement of a phase head. This conclusion holds independent of whether the verbal phase head is V or v.

(152)  a. [VP V [SC DP Pred]]

b. [vP v [VP V [SC DP Pred]]]

In short, BP allows argument ellipsis of specifiers and of arguments that are internal to phase head complements. It is therefore incorrect to limit the distribution of argument ellipsis to the complement-of-phase-head position. Even if such an account additionally makes use of null topics, it nonetheless remains excessively restrictive.

Finally, recall the following two predictions, according to which argument ellipsis may not target type <et,t> denoting expressions.

(153)  Tomioka (2003), Prediction:  
If argument ellipsis (in a given language) is to be analyzed in terms of pro<et,t>, argument ellipsis (in that language) is semantically restricted: the elided argument (i.e., the null pronoun) can denote an expression of type e (via the iota operation) or of type <e,t>, but not of type <et,t>.

(154)  Bošković (2016, 2017), Prediction:  
Argument ellipsis does not target expressions of type <et,t>.

As already discussed above, BP allows argument ellipsis of type <et,t> denoting arguments. Argument ellipsis in BP thus provides evidence against these two accounts of argument ellipsis.
THE DISTRIBUTION OF ARGUMENT ELLIPSIS IN OV LANGUAGES

In the third chapter, it was proposed that the distribution of argument ellipsis in OV languages is subject to the following constraint.

(1) In languages in which argument ellipsis is permitted, argument ellipsis of an argument Arg is possible only if Arg and V are local.

Crucially, the definition of locality varies as a function of whether the language in question is VO or OV. In VO languages, locality is defined as in (2). In OV language, it is defined as in (3).

(2) Locality (VO version):
V and Arg are local if and only if V immediately precedes Arg.

(3) Locality (OV version):
V and Arg are local if and only if Arg is a sister of V or V'.

The previous chapter presented a study of argument ellipsis in BP, a VO language. The purpose of this study was to argue that argument ellipsis in VO languages is indeed subject to the constraint in (1), with locality defined as in (2). The present chapter argues that argument ellipsis in OV languages is subject to the constraint in (1), with locality defined as in (3).

The primary focus of the present chapter will be on establishing that the following prediction holds true. As discussed in the third chapter, the account of argument ellipsis under proposal herein generates this prediction. Hence, in arguing that this prediction holds true, the present chapter is arguing in support of the present account of argument ellipsis.

(4) In an OV language with argument ellipsis, an external subject may undergo argument ellipsis only if it is base-generated in the specifier of an upper VP-shell.

Regarding the above prediction, it will be recalled that according to Neeleman and Weerman (1999)’s model, there are three types of languages with respect to where external subjects are generated.
First, there are languages in which external subjects always bear an empty case shell and are therefore always generated in the specifier of an upper VP-shell. Second, there are languages in which external subjects never bear an empty case shell; in such languages, external subjects are always generated as adjuncts to VP. Finally, there are ‘hybrid’ languages—languages in which one or more classes of external subjects do bear an empty case shell and in which the remaining class(es) of external subjects do(es) not. In such languages, some external subjects will be generated in the specifier of an upper VP-shell—namely, those that bear an empty case shell—and some will not—namely, those that do not bear an empty case shell.

The above prediction therefore generates the following set of predictions. (i) Argument ellipsis-allowing OV languages of the first type (i.e., all external subjects bear an empty case shell) will allow argument ellipsis of external subjects. (ii) Argument ellipsis-allowing OV languages of the second type (i.e., no external subjects bear an empty case shell) will not allow argument ellipsis of external subjects. (iii) Argument ellipsis-allowing OV languages of the hybrid type will allow argument ellipsis of some, but not all, classes of external subjects: namely, those that carry an empty case shell.

The present chapter examines a number of OV languages with argument ellipsis. In some of the languages examined, external subjects always carry an empty case shell. In the remaining languages, external subjects never carry an empty case shell. As to ‘hybrid’ languages, none of the languages examined below appear to be of this type. Thus, the predictions of the present account vis-à-vis such languages remain to be tested.

In what follows, then, the focus will be on demonstrating that the current account correctly predicts which OV languages with argument ellipsis will allow argument ellipsis of external subjects and which will not.

The present account of argument ellipsis also predicts that overt movement in OV languages bleeds argument ellipsis. Since movement in OV languages never targets a position that is local to V, overt movement will necessarily place the argument in a position that is not local to V at the syntax-phonology interface, thus preventing the application of argument ellipsis.
By contrast, covert movement does not feed the syntax-phonology interface. Thus, if an argument is local to V prior to movement, covert movement will not affect the argument’s ability to undergo argument ellipsis. Covertly moved arguments may therefore undergo argument ellipsis, provided the position from which they move is local to V.

This latter pair of predictions will be tested during the discussion of Japanese, where it will be argued that this prediction is fulfilled. Otherwise, the focus throughout will be on establishing that the current account makes the right subdivision within the class of argument ellipsis-allowing languages.

Finally, recall that the present account generates the following prediction.

(5) If an OV language allows argument ellipsis, it allows argument ellipsis of internal arguments.

For each language examined below, it will be demonstrated that the language allows argument ellipsis of internal arguments. As to those languages not examined, I will simply refer the reader to the relevant literature, where it can be verified that argument ellipsis of internal arguments is indeed possible.\(^1\)

5.1 **Japanese**

Consider the following example.\(^2\)

---

1 The literature on argument ellipsis with which I am familiar identifies the following OV languages as allowing argument ellipsis: Japanese, Korean, Mongolian, Bangla, Hindi, Persian, Turkish, Malayalam, and Basque. All but Malayalam and Basque will be discussed below. I have omitted Malayalam from discussion, given that it is, at present, unclear whether external subjects in this language are eligible for argument ellipsis: according to D. Takahashi (2013) they are not; according to Simpson, Choudhury, and Menon (2013) they are, some of the time. As to Basque, for reasons detailed at the close of section 5.5, the present account currently makes no predictions with respect to whether ergative-marked external subjects may undergo argument ellipsis. A discussion of Basque would therefore serve little purpose. For discussion of argument ellipsis in Basque, see Duguine (2014), Ohtaki (2014, pp. 105-109), and D. Takahashi (2007).

2 In this section and each of the following sections, I will begin by establishing that the language in question permits argument ellipsis. I will do so by examining one or more sentences involving a null internal argument and arguing that the null argument is generated under argument ellipsis. The alternative possibility that the null argument is generated under VVPE will be considered and when possible, controlled for. Having established that the language allows argument ellipsis, external subjects will be considered. First, I will establish whether external subjects in the language in question bear an empty case shell. If they do, the current account predicts that the language allows argument ellipsis of
The null object is interpreted as the indefinite, san-ko-no booru-o ‘three balls’, which gives rise to a reading in which the three balls Masa kicked may be different from the three balls Ken kicked. The null object’s indefinite interpretation signifies that it is not pro\textsubscript{def}. That this is so is confirmed by (6-c), in which the null object has been replaced with a definite pronoun. The definite pronoun cannot be interpreted indefinitely. Rather, it produces a reading according to which Masa kicked the same three balls that Ken kicked. The null object is therefore not pro\textsubscript{def}; if it were, the null object would not be able to be interpreted indefinitely.

If the null object is an elided occurrence of san-ko-no booru-o, the indefinite construal would be produced. Thus, one possibility is that the null object is generated under argument ellipsis.

Another possibility is that the indefinite construal is generated under VVPE.

If Japanese has VVPE, sentences such as (6-b) cannot, therefore, be used to establish that Japanese has argument ellipsis.

There is debate in the literature on whether Japanese permits VVPE. Evidence against VVPE comes from examples such as the following, in which the second sentence cannot be construed as containing an occurrence of the adverb. If Japanese allowed VVPE, the derivations in (11) would be possible. This, in turn, would generate the construals under (b). Thus, the impossibility of these readings argues that Japanese lacks VVPE.

external subjects; if they do not, the account predicts that ellipsis of external subjects is disallowed. I will then examine sentences with external subjects and seek to establish whether external subjects can undergo argument ellipsis.
‘Bill washed a car carefully.’
   John-TOP wash-NEG-PST
   = (a) ‘John washed a car.’
   ≠ (b) ‘John washed a car carefully.’
   (Oku, 1998; D. Takahashi, 2014)

(10) a. Bill-wa gohan-o sizukani tabe-ta.
   Bill-TOP meal-ACC quietly eat-PST
   ‘Bill ate the meal quietly.’
   John-TOP eat-NEG-PST
   = (a) ‘John didn’t eat.’
   ≠ (b) ‘John didn’t eat the meal quietly.’ (Oku, 1998)

(11) a. John-wa kuruma-o teineini arat-ta
    John-TOP car-ACC carefully wash-PST
    ‘Bill didn’t wash the car carefully.’
b. John-wa gohan-o sizukani tabe-nakat-ta

On the other hand, the (b)-readings become possible if small changes are made to the sentences above. In (12-b) and (13), for instance, the second sentence/conjunct can indeed be understood as containing the adverb.

    Bill-TOP carefully car-ACC wash-NEG-PST
    ‘Bill didn’t wash the car carefully.’
    John-also wash-NEG-PST
    ‘John didn’t wash the car carefully, either.’
    (D. Takahashi, 2008b, cited in Funakoshi, 2016)

(13) Bill-wa teineini kuruma-o arat-ta kedo, John-wa
    John-TOP carefully car-ACC wash-PST but, John-TOP
    araw-anakatta.
    wash-NEG-PST
    ‘Bill washed the car carefully, but John didn’t was the car
    carefully.’
    (Funakoshi, 2014, cited in Funakoshi, 2016, p. 119)

Funakoshi (2016) goes on to present further examples of a similar nature—examples in which the second sentence/conjunct can be interpreted as containing an adverb. If Japanese does not permit adverb ellipsis, as the sentences in (9) and (10) suggest, then Funakoshi (2016)’s examples provide strong evidence for the availability of VVPE in Japanese.

The following examples provide further evidence that Japanese permits VVPE.3 The sentence in (14) can be understood as in (a),

---

3My thanks to Yasutada Sudo for providing me these judgements.
but not as in (b). The impossibility of the interpretation under (b) demonstrates that Japanese does not allow ellipsis of numeral quantifiers. If ellipsis of numeral quantifiers were possible, the derivation in (15) would be possible, which would generate the reading under (b). By comparison, the sentence in (16) does indeed allow the (b)-reading. Since ellipsis of numeral quantifiers is not possible, this reading must be generated by eliding some constituent that properly contains the quantifier. Plausibly, this constituent is the VP.

(14) Taro-wa hon-o ni-satsu yonda kedo, Hanako-wa Taro-TOP book-ACC two-CLF read but, Hanako-TOP zassi-o yom-anak-atta. magazine-ACC read-NEG-PST
= (a) ‘Taro read two books, but Hanako didn’t read magazines.’
≠ (b) ‘Taro read two books, but Hanako didn’t read two magazines.’

(15) ... Hanako-wa zassi-o [ni-satsu] yom-anak-atta

(16) Taro-wa hon-o ni-satsu yonda kedo, zassi-wa Taro-TOP book-ACC two-CLF read but, magazine-TOP yom-anak-atta. read-NEG-PST
= (a) ‘Taro read two books, but he didn’t read magazines.’
= (b) ‘Taro read two books, but he didn’t read two magazines.’

(17) zassi-wa prodef [VP t, ni-satsu tv] yom-anak-atta

In short, there is evidence both for and against the availability of VVPE in Japanese. In what follows, it will fortunately be possible to establish that Japanese allows argument ellipsis of internal arguments without having to first decide whether Japanese allows VVPE.

Consider, in this connection, the following sentences. The sentences below are examples of the part-whole construction. In this construction, the second object is understood as denoting a part of the entity denoted by the first object.\footnote{I borrow the term ‘numeral quantifier’ from Miyagawa (1989). In Miyagawa (1989, p. 19)’s words: “A numeral quantifier consists of a numeral and a classifier that agrees with the type of entity being counted”.}

\footnote{As D. Takahashi (2008a, p. 417, n. 8) notes, the mild deviance of (18-a) and (19-a) is due to their violation of the Double-\(o\) Constraint (Harada, 1973; Shibatani, 1973).}
In (18-b), the first object (i.e., the ‘whole’ expression) is null. It is interpreted sloppily, suggesting that the null argument is generated under ellipsis. The relevant ellipsis operation is argument ellipsis, not VVPE. Under a VVPE-analysis, the ‘part’-denoting object would have to raise out of the VP, as in (20). The examples in (19) indicate that this is not possible. Thus, the ‘part’-denoting object in (18-b) is VP-internal, ruling out a VVPE-analysis of this example. Argument ellipsis, by contrast, has no difficulty in generating this example.

(18) a. ??Taroo-wa [zibun-no kodomo-o] ude-o tataita.  
    Taroo-TOP self-GEN child-ACC arm-ACC hit  
    ‘Taroo hit his child on the arm.’  
    b. Hanako ___ asi-o tataita.  
    Hanako-TOP ___ leg-ACC hit  
    ‘Hanako hit her child on the leg.’  
    (D. Takahashi, 2008a, p. 403)

(19) a. ??Taroo-wa Ken-o ude-o tataita.  
    Taroo-TOP Ken-ACC arm-ACC hit  
    ‘Taroo hit Ken on the arm.’  
    b. *Ude-o Taroo-wa Ken-o tataita.  
    arm-ACC Taroo-TOP Ken-ACC hit  
    Taroo-TOP arm-ACC Ken-ACC hit  
    (D. Takahashi, 2008a, p. 403)

(20) Hanako-wa asi-o, [VP [zibun-no kodomo-o] t] tataita

Let us therefore conclude (with much of the literature on Japanese null arguments), that Japanese allows argument ellipsis. With this in place, let us turn to external subjects.

Recall the following definition from the third chapter.

(21) A nominative affix is a genuine nominative affix if it conveys the information ‘nominative’ and no other morphological information (e.g., declension class, number, gender).

As discussed in the third chapter, the nominative affix in Japanese is a genuine nominative affix. It does not convey any morphological information aside from ‘nominative’.

Recall, also, that nominative is defined as follows.

(22) NOM = <+TEP>

Finally, recall that case shells that merge with external subjects enter the derivation bearing a single, unvalued feature: namely,
Hence, the following conclusion follows: if a case shell merges with an external subject that carries a genuine nominative affix, the case shell’s feature will not be valued. The case shell will, therefore, be empty, thus requiring the external subject to be head governed. Accordingly, the external subject will have to be base-generated in the specifier of an upper VP-shell (in the case of OV languages, that is—I have not discussed how head government is achieved in VO languages).

In short, if a case shell merges with an external subject that bears a genuine nominative affix, the case shell will remain empty. What remains to be determined is whether such external subjects must merge with a case shell. In other words, what remains to be determined is whether such external subjects can, in principle, be licensed through head marking.

Neeleman and Weerman (1999) explicitly assume that external subjects that bear a genuine nominative affix must, indeed, be merged with a case shell. So far as I have been able to discern, Neeleman and Weerman (1999) do not explicitly argue for this conclusion. Instead, they present empirical arguments that DPs that carry a genuine nominative affix must be head governed. This conclusion indicates that such DPs carry an empty case shell—hence, that they carry a case shell.

In what follows, I will assume with Neeleman and Weerman (1999) that external subjects that carry a genuine nominative affix carry a case shell. For reasons just discussed, this case shell will

---

6See the bottom of page 201 in the authors’ text.
7For these arguments, see Neeleman and Weerman (1999, pp. 195–208). Here, I reproduce one of their arguments.

(i) a. The nominative affix in Arabic is a genuine nominative affix.
b. Nominative subjects in Arabic must therefore be head governed.
c. Head government in VO languages (including both SVO and VSO languages) is to a close approximation instantiated through immediate precedence; i.e., X head governs YP if X is a proper governor and X immediately precedes YP.
d. Hence, nominative subjects in Arabic must be immediately preceded by a proper governor.

The prediction that nominative subjects must be immediately preceded by a proper governor—V, in the following example—is correct.

(ii) a. *kataba haðaa s-sabaah-a r-rajul-u r-risaalat-a wrote this the-morning ACC the-man NOM the-letter ACC
   b. kataba r-rajul-u r-risaalat-a haðaa s-sabaah-a wrote the-man NOM the-letter ACC this the-morning ACC

'The man wrote the letter this morning.'

(Neeleman and Weerman, 1999, p. 198)
be empty, thus requiring the external subject to be generated in
the specifier of an upper VP-shell.

Let us now return to Japanese. As already mentioned, external
subjects in Japanese carry a genuine nominative affix. As such, they
are base-generated in the specifier of an upper VP-shell. The present
account of the distribution of argument ellipsis therefore predicts
that Japanese permits argument ellipsis of external subjects. This
prediction is correct, as the following examples demonstrate. In each
of the following examples, the null subject is interpreted indefinitely.

(23) a. seerusuman-ga Mary-no uchi-ni kita.
    salesman-NOM Mary-GEN house-to came
    'A salesman came to Mary’s house.'

    b. ___ John-no uchi-ni-mo kita.
    ___ John-GEN house-to-also came
    'A (possibly different) salesman came to John’s house,
too.'

    (Oku, 1998)

    three-GEN wizard-NOM Taroo-DAT see-to came
    'Three wizards came to see Taroo.'

    b. ___ Hanako-ni-mo ai-ni kita.
    ___ Hanako-DAT-also see-to came
    'Three (possibly different) wizards came to see Hanako,
too.'

    (D. Takahashi, 2014)

Before concluding the discussion on Japanese, recall that the
present account of argument ellipsis makes the following prediction.

(25) In an OV language with argument ellipsis, an internal argu-
    ment may undergo argument ellipsis only if it has not overtly
    raised from its base-position.

The following data provide preliminary support for the correctness
of this prediction.

The objects of stative verbs in Japanese can bear nominative
case (Bobaljik and Wurmbrand, 2007; Koizumi, 1995; Tada, 1993;
M. Takahashi, 2010, among others). Thus, in addition to (26), in
which the object bears accusative, (27) is possible, with the object
bearing nominative.

    John-NOM vodka-only-ACC drink-can-PRS
    'John can drink only vodka.'
The distribution of argument ellipsis in OV languages

    John-NOM vodka-only-NOM drink-canPRS
    ‘John can drink only vodka.’

(Funakoshi, 2011)

(28) a. (can > only) John can drink vodka straight.
    b. (only > can) It is only vodka that John can drink.

The scope of the object depends upon whether it bears accusative or nominative. For all speakers, accusative objects may take scope under ‘can’. Moreover, for all speakers, stressed accusative objects may take scope over ‘can’. In addition, some but not all speakers allow accusative objects to outscape ‘can’ even when the object is not stressed (Koizumi, 1995, p. 68, fn. 6). As for nominative objects, according to earlier studies, nominative objects must take scope over ‘can’. More recently, however, Nomura (2005) has demonstrated through a very careful study that nominative objects can indeed take scope under ‘can’; the ‘can’ > obj NOM scopal order is, however, generally dispreferred.

Focusing on nominative objects, sentences with nominative objects are often analyzed as involving movement of the object to a position c-commanding the ‘can’ morpheme.  

(29)


canP
  SU can’
  VP can
    (PRO) V’
      DO V

Authors disagree over whether the object’s movement is overt or covert. A strong argument in support of the movement being overt is provided by Miyagawa (2001). The argument is based on the following two examples.

(30) a. Taroo-ga zen’in-ni sigoto-o atae-rare-nakat-ta
    Taroo-NOM all-DAT work-ACC give-can-NEG-PST
    (yo/to omou).
    (EXCLAMATION/COMP think)

---

8For proponents of this sort of analysis, see Bobaljik and Wurmbrand (2007), Koizumi (1995), Tada (1993), and M. Takahashi (2010).
‘(I think that) Taroo wasn’t able to give work to all.’
(not > all, (*)all > not)

b. Taroo-ga zen’in-ni sigoto-ga atae-rare-nakat-ta
Taroo-NOM all-DAT work-NOM give-can-NEG-PST
(yo/to omou).

(I think that) Taroo wasn’t able to give work to all.’
(*not > all, all > not)

(Miyagawa, 2001, pp. 308–309)

When the direct object bears accusative case, the indirect object preferentially/obligatorily takes scope in situ. When the direct objects bears nominative case, the indirect object must take scope over negation.

As Miyagawa (2001) observes, if nominative objects undergo overt movement, then the indirect object in (30-b) has likewise moved overtly from its base position. Since the nominative object targets a position above the ‘can’ and negation morphemes, the indirect object will have targeted a position above these morphemes, as well. As such, the indirect object in (30-b) takes scope over negation (and over ‘can’). By contrast, under a covert movement analysis, the interaction between nominative marking on the direct object and the indirect object’s scopal behavior remains unexplained.

In what follows, I will assume that the movement exhibited by nominative objects is overt. Returning to (27), then, wide scope of the nominative object results from overt movement of the object. Narrow scope of the nominative object obtains when the object remains in situ.

With this much assumed, the current account of argument ellipsis makes the following prediction: nominative objects may undergo argument ellipsis only if they remain in situ. As I will now argue, this prediction is correct.

Consider the following example.

   John-NOM vodka-only-NOM drink-can-PRS
   ‘John can drink only vodka.’

b. Bill-mo ____ nom-e-ru.
   ‘Bill also ____ drink-can-PRS.’
   (Lit.) ‘Bill can also drink.’

(Funakoshi, 2011; Yasutada Sudo, personal communication)
There are two sets of judgements to report. The first is due to Sudo, for whom the sentence in (27) (repeated below as (32)) is ambiguous: the nominative object may take scope over or under ‘can’. In (31-b), however, the elided object must take scope under ‘can’. Thus, argument ellipsis of nominative objects forces the object to take scope in situ.

    John-NOM vodka-only-NOM drink-can-PRS
    ‘John can drink only vodka.’

According to the judgement reported in Funakoshi (2011), the sentence in (32) is unambiguous: the object must take scope over ‘can’. As for (31-a), the object must once again take scope over ‘can’. The null object in (31-b) cannot take wide scope, however. Nor can it take scope in situ, and for two reasons: (i) for the speakers whose judgements are reported in Funakoshi (2011), nominative objects cannot take scope in situ; (ii) in situ scope would violate Scopal Parallelism. Thus, the sentence simply means, “Bill can also drink.”

These two sets of judgements support the same conclusion: argument ellipsis of nominative objects prevents the object from taking scope outside of the VP. Under the current approach to the distribution of argument ellipsis, this conclusion is explained. According to this approach, an argument must be local to V if it is to be eligible for argument ellipsis. Moreover, locality holds at the syntax-phonology interface. Since overt movement in OV languages never targets positions that are local to V, overt movement of nominative objects in Japanese necessarily places the argument in a position that is not local to V. As such, overt movement of nominative objects bleeds argument ellipsis, and with this, VP-external scope.

By contrast, covert movement does not feed the syntax-phonology interface. Thus, covert movement will not bleed argument ellipsis. If an argument is local to V prior to movement, it will remain so after

---

9 Due to Scopal Parallelism, the antecedent in (31-a) obligatorily takes scope under ‘can’, as well.

10 Funakoshi (2011) indicates that the sentence in (31-b) does not mean ‘Bill can also drink only vodka’—neither with wide scope nor with narrow scope of the elided object. However, he is not explicit about what the sentence does mean, noting only that the object cannot be construed quantificationally (i.e., as ‘only vodka’). Thus, it is not clear whether the interpretation of (31-b) is, for Funakoshi (2011)’s informants, ‘Bill can also drink’ or ‘Bill can also drink vodka’. In either case, what is clear is that argument ellipsis of vodka-dake-ga ‘only vodka-NOM’ is impossible.
moving. The prediction, then, is that covertly moved arguments in Japanese may undergo argument ellipsis. The following example shows that this prediction is correct. In this example, the elided object takes scope over the subject. Assuming inverse scope requires QR, this example demonstrates that elided arguments can indeed undergo covert movement.

(33) a. A-too-de-wa keikan-ga hitori dono
A-building-at-TOP police officer-NOM one
iriguti-ni-mo haritui-te-imasu.
gate-to-also guard-PROG-PRS
‘At building A, a police officer is guarding every gate.’
(every > a police officer)
b. B-too-de-wa keibiin-ga hitori ___
B-building-at-TOP security guard-NOM one ___
haritui-te-imasu.
guard-PROG-PRS
‘At building B, a security guard is guarding every gate.’
(every > a security guard) (Oku, 2016, p. 66)

5.2 KOREAN

The following example illustrates that Korean permits argument ellipsis.

(34) a. Chelswu-ka taypwupwun-uy sensayngim-ul
Chelswu-NOM most-GEN teacher-ACC
conkyenghako isssta.
respect AUX
‘Chelswu respects most teachers.’
b. Yengmi-to ___ conkyenghako isssta
Yengmi-also ___ respect AUX
‘Yengmi also respects most teachers.’
(D. Takahashi, 2007)

Note that (34-b) cannot be explained away as an instance of VVPE. Korean does not permit VVPE, as the following examples indicate.

John-NOM fast run-CONJ Mary-also run-DECL
= (a) ‘John runs fast, and Mary runs, too.’
≠ (b) ‘John runs fast, and Mary runs fast, too.’
b. John-i kulen iwu-lo ttena-ass-ko Mary-to
John-NOM that reason-for leave-PST-CONJ Mary-also
ttena-ass-ta.
leave-PST-DECL
130 THE DISTRIBUTION OF ARGUMENT ELLIPSIS IN OV LANGUAGES

= (a) ‘John left for such a reason, and Mary left, too.’
≠ (b) ‘John left for such a reason, and Mary left for such a reason, too.’ (Park, 1997, pp. 631–632)

(36) a. Chelswu-nun i pangpep-ulo ikiessta.
   Chelswu-TOP this way-in won
   ‘Chelswu won this way.’

   b. Mina-to ikiessta.
   Mina-also won
   = (a) ‘Mina won, too.’
   ≠ (b) ‘Mina won this way, too.’ (D. Takahashi, 2007)

The following example provides further evidence that Korean permits argument ellipsis.

   Jerry-TOP [self-GEN child]-ACC arm-ACC hit-PST-IND
   ‘Jerryi hit hisi child on the arm.’

   but Sally-TOP __ leg-ACC hit-PST-IND
   ‘But Sallyi hit heri child on the leg.’ (Kim, 1999, p. 259)

Even if Korean did have VVPE, the example above could not be analyzed as involving VVPE. For such an analysis to be feasible, it would be necessary that the second object raise out of the VP, as depicted in (38). However, the second object cannot raise out of the VP. This is demonstrated by (39).

(38) Kulena Sally-nun tali-lul [VP [caki-uy ai]-lul i tayli-ess-ta]

   but Sally-TOP leg-ACC [her-GEN son]-ACC hit-PST-IND
   ‘But Sally hit her son on the leg.’ (Kim, 1999, p. 259)

Turning now to external subjects, note that Korean external subjects bear a nominative affix. This affix has two allomorphs: -ka, which occurs after vowels, and -i, which occurs after consonants (Chang, 1996). Importantly, this affix is a genuine nominative affix; it conveys no information other than ‘nominative’. The present account of argument ellipsis therefore predicts that external subjects may undergo argument ellipsis. The following example demonstrates that this prediction is correct.

(40) a. Taytaswu-uy haksayng-tul-i ilpone-lul alko
   most-GEN student-PL-NOM Japanese-ACC know
   isssta.
   AUX
‘Most students know Japanese.’

b. ___ Cwungkuke-to alko issta.
   ___ Chinese-also know AUX

‘Most students know Chinese, too.’ (D. Takahashi, 2007)

As is indicated by the gloss, the external subject is interpreted as ‘most students’, giving rise to a reading in which the set of students who know Chinese may be partially distinct from the set of students who know Japanese. The availability of this reading indicates that the external subject has been generated under argument ellipsis.

(41) [Taytaasu-ni hakaanyng tul i] cwungkuke-to alko issta.

5.3 MONGOLIAN

Without a more thorough analysis of Mongolian, it is difficult to establish whether Mongolian licenses its external subjects through head marking or through dependent marking. Some initial conclusions can be reached, though. These conclusions suggest that external subjects in Mongolian are licensed through dependent marking. Specifically, they are merged with an empty case shell.

First, note that external subjects in Mongolian do not bear case morphology (Janhunen, 2012).

(42) Huu ene nom-ig unsh-san.
    boy this book-ACC read-PFV

‘The boy read this book.’ (Sakamoto, 2012, p. 27)

The significance of this point is as follows. Arguments that bear a genuine nominative affix merge with an empty case shell. This being so, if external subjects in Mongolian bore a genuine nominative affix, it could be concluded without further ado that they merge with an empty case shell. Since they do not bear a genuine nominative affix, reaching this conclusion will require further work.

Second, note that Mongolian lacks subject-verb agreement (Sakamoto, 2012).

(43) Bi/Chi/Ter/Bid/Tanar/Ted Bat-ig har-san.
    I/You/He/We/You/They Bat-ACC see-PFV

‘I/You/He/We/You/They saw Bat.’

(Sakamoto, 2012, p. 33)
This suggests that Mongolian VPs are not head marked. As such, external subjects must merge with a case shell. The case shell’s unvalued feature (i.e., \(<αΝΟP>\)) will remain unvalued, given that the external subject does not bear case morphology. The case shell will therefore be an empty case shell, thus requiring that the external subject be generated in the specifier of an upper VP-shell.

D. Takahashi (2007) and Sakamoto (2012) argue that Mongolian has argument ellipsis. Unfortunately, the examples used in arguing that Mongolian permits argument ellipsis of internal arguments do not exclude the possibility that the examples are generated under VVPE. I will therefore omit discussion of these examples and demonstrate without further ado that Mongolian permits argument ellipsis of external subjects. The ability of external subjects to undergo argument ellipsis in Mongolian is predicted by the current account, given that external subjects in Mongolian are base-generated in the specifier of an upper VP-shell.

(44)  
\begin{enumerate}[a.]
\item Gurwan ilbechin Bat-tai uulzah-aar ir-sen.
\begin{flushright}
three witch Bat-POSS come-INST see-PFV
\end{flushright}
\begin{quote}
‘Three witches came to see Bat.’
\end{quote}
\item \underline{___} Oyuna-tai ch uulzah-aar ir-sen.
\begin{flushright}
\underline{___} Oyuna-POSS also come-INST see-PFV
\end{flushright}
\begin{quote}
‘Three (possibly different) witches also came to see Oyuna.’
\end{quote}
\end{enumerate}
(Sakamoto, 2012, p. 44)

(45)  
\begin{enumerate}[a.]
\item Goran sorogqi Yaponhei-gi qidana.
\begin{flushright}
Three student Japanese-ACC know
\end{flushright}
\begin{quote}
‘Three students know Japanese.’
\end{quote}
\item \underline{___} Gitadhei-gi qidazhubaihu oqir bas medegdezhei.
\begin{flushright}
\underline{___} Chinese-ACC know that also clear
\end{flushright}
\begin{quote}
‘That three (possibly different) students know Chinese is also clear.’
\end{quote}
\end{enumerate}
(D. Takahashi, 2007)

5.4 Bangla

Bangla permits VVPE. As such, in establishing that Bangla allows argument ellipsis, it is important to consider sentences in which the null argument cannot alternatively be analyzed as having been generated under VVPE.

The following set of examples indicates that Bangla permits VVPE.

(46) Bangla
a. Ram du ghOnTa dhore Chomsky-r notun lekha-Ta poRlo.
paper-clitic read-pst.3
‘Ram read Chomsky’s new paper for two hours.’

b. Raj-o poRlo.
Raj also read-pst.3
‘Raj also read the paper for two hours.’

c. Raj-o lekha-Ta poRlo.
Raj also paper-clitic read-pst.3
= (a) ‘Raj also read the paper.’
≠ (b) ‘Raj also read the paper for two hours.’

(Simpson, Choudhury, and Menon, 2013)

The sentence in (46-c) does not allow the reading under (b). From
this, it can be concluded that Bangla does not allow adverb ellipsis.
If it did, the derivation in (47) would be possible, which would
generate the reading under (b).

(47) Raj-o [VP [du ghOnTa dhore] [V' lekha-Ta poRlo]]

Given that Bangla does not permit adverb ellipsis, it must be
concluded that the sentence in (46-b) is not generated as in (48),
with ellipsis of the adverb. Rather, it is generated through VVPE,
as illustrated in (49).

(48) Raj-o [VP [du ghOnTa dhore] [V' pro poRlo]]

(49) Raj-o [VP [du ghOnTa dhore] [V' [Chomsky-r notun lekha-Ta]
    tv]] poRlo

Having concluded that Bangla permits VVPE, consider (46-c)
again. Note that the impossibility of the (b)-reading indicates
that the following sort of derivation is impossible.

(50) Raj-o [lekha-Ta] [VP [du ghOnTa dhore [V' t tv]] poRlo]

In this derivation, the object raises out of the VP, thus enabling
VVPE to apply. If such a derivation were possible, the sentence in
(46-c) would permit the reading under (b).

By contrast, this sort of derivation is possible when the object is
correlative. This is confirmed by (51-b), in which the adverb can
indeed be construed as being present. This reading is not generated
as in (52), given that Bangla does not permit adverb ellipsis. Hence,
it is generated as in (53), with object raising plus VVPE.

(51) Bangla
a. Ram du ghOnTa dhore Chomsky-r notun
   Ram two hour taking Chomsky-GEN new
   lekha-Ta poRlo.
   paper-CLITIC read-PST.3
   ‘Ram read Chomsky’s new paper for two hours.’

b. Raj Kayne-er lekha-Ta poRlo.
   Raj KayneGEN paper-CLITIC read-PST.3
   ‘Raj read the paper by Kayne (for two hours).’

(Simpson, Choudhury, and Menon, 2013)

(52) Raj [VP [du ghOnTa dhore] [v' [Kayne-er lekha-Ta] poRlo]]

(53) Raj [Kayne-er lekha-Ta]i [VP [du ghOnTa dhore] [v' t_i t_V]]
    poRlo

In summary, Bangla allows VVPE and it also allows contrastive objects to raise out of the VP, as in (53). Crucially, non-contrastive VPs remain VP-internal, thus blocking VVPE.

With these conclusions in mind, consider the following example, noting that the null argument is construed indefinitely. Note, also, that the object Dakkhineshwar mandir-e ‘to the Dakkhineshwar temple’ is non-contrastive. The null argument’s indefinite construal indicates that ellipsis, and not pro_def, is involved. The non-contrastiveness of the object indicates that the ellipsis operation in question is argument ellipsis, not VVPE. In short, Bangla allows argument ellipsis.

(54) a. Ram prayei Dakkhineshwar mandir-e du jhuri
   Ram often Dakkhineshwar temple-to two basket
   phol pathaye.
   fruit send-PRS
   ‘Ram often sends two baskets of fruit to the Dakkhineshwar temple.’

b. Raj-o Dakkhineshwar mandir-e ___ pathaye.
   Raj-also Dakkhineshwar temple-to ___ send-PRS
   ‘Raj also sends two baskets of fruit to the Dakkhineshwar temple.’

(Simpson, Choudhury, and Menon, 2013, p. 112, fn. 5)

Having noted that Bangla permits argument ellipsis, consider the question of how external subjects in Bangla are licensed. Bangla has nominative-accusative alignment, with nominative subjects lacking case morphology (i.e., nominative subjects are unmarked; they do not carry a case affix). In other words, ‘nominative’ external subjects do not bear any case features; they are caseless, the term ‘nominative’ being a misnomer.
Abhik nijer sikkhak-ke sroddha kOre.
Abhik self’s teacher-ACC respect do.PRS.3
‘Abhik respects his teacher.’
(Simpson, Choudhury, and Menon, 2013, p. 106)

Bangla also has quirky subjects: i.e., dative- and genitive-marked subjects.

Ram bhabe je or meye-Ti-ke aiin poRa
Ram think-PRS.3 C his daughter-CLITIC-DAT law study
ucit.
should.
‘Ram thinks that his daughter should study law.’
(Simpson, Choudhury, and Menon, 2013, p. 114)

Ram bhabe je or meye-Ti-r Abhik-ke
Ram think-PRS.3 C his daughter-CLITIC-GEN Abhik-ACC
bhalo lage.
like-PRS
‘Ram thinks that his daughter likes Abhik.’
(Simpson, Choudhury, and Menon, 2013, p. 114)

Note, finally, that subject-verb agreement is present when the subject does not bear case; conversely, subject-verb agreement is absent when the subject bears case.

Recall, now, that Neeleman and Weerman (1999) propose the following principle, according to which arguments are licensed either through dependent marking or through head marking, but not through both. In other words, if an argument carries a case shell, the predicate with which it is associated will not be head marked, and if the predicate is head marked, the argument will not carry a case shell.

Uniqueness of Marking
No thematic relation is marked more than once.
(Neeleman and Weerman, 1999, p. 201)

Given this principle, the mutual exclusivity of case morphology and agreement supports two conclusions: (i) agreement in Bangla functions as a designated feature; (ii) Bangla DPs that carry case morphology bear a case shell. These two conclusions explain the mutual exclusivity of agreement and case morphology. Thus, if the presence of case morphology entails the presence of a case feature, then the presence of case morphology will exclude the realization of agreement, under the assumption that the latter is a designated feature.
Since agreement would head mark the VP, agreement would violate Uniqueness; hence, it is excluded.

In short, ‘nominative’ external subjects are licensed through head marking. They are therefore generated as adjuncts to VP. The present account of argument ellipsis thus predicts that ‘nominative’ subjects in Bangla cannot undergo argument ellipsis.

As for quirky subjects, recall that the case shell that merges with a quirky subject is a filled case shell. This is because the case shell’s single feature—an unvalued $<$nop$>$ feature—receives a value in the course of the derivation. Since the case shell does not bear any unvalued features at the syntax-phonology interface, it is a filled case shell.\footnote{11}{The example in (59) represents merger with a dative subject. The example in (60) represents merger with a genitive subject.}

\begin{align*}
(59) & \quad \text{a. Merge(DP} \{<\neg \text{nop, +mar}>\}, \text{CASE}\{<\text{nop}>\}) \rightarrow \\
& \quad \text{b. [CASEP DP} \{<\neg \text{nop, +mar}>\} \text{CASE}\{<\neg \text{nop}>\}] \\
(60) & \quad \text{a. Merge(DP} \{<+\text{nop, }-\text{mar}>\}, \text{CASE}\{<\text{nop}>\}) \rightarrow \\
& \quad \text{b. [CASEP DP} \{<+\text{nop, }-\text{mar}>\} \text{CASE}\{<+\text{nop}>\}] \\
\end{align*}

Thus, external subjects that bear quirky case are likewise generated as adjuncts to VP. Accordingly, the present account predicts that quirky external subjects in Bangla cannot undergo argument ellipsis, either. In short, Bangla is predicted not to permit argument ellipsis of external subjects.

The empirical picture supports this prediction, though not in the most obvious way. Empirically, the situation is as follows. Null ‘nominative’ external subjects and null quirky subjects allow sloppy readings. Null ‘nominative’ external subjects do not allow indefinite readings. As for null quirky subjects, I have not had the opportunity to test whether they allow indefinite readings.

In interpreting this empirical picture, it is important to note that null arguments are capable of producing sloppy readings even when they are not generated under ellipsis. Thus, sloppy readings do not constitute a reliable diagnostic of ellipsis.\footnote{12}{Indeed, in his article on diagnostics of ellipsis, Merchant (2013) concludes that sloppy readings are not a diagnostic for ellipsis.}

In the following example, the null object has a pragmatic antecedent, not a linguistic antecedent. In other words, the null object is a deep anaphor, not a surface anaphor. As such, the null
object is not generated under ellipsis. Rather, it is a null pronoun. Importantly, the null object admits a sloppy reading.\(^{13}\)

\[(61)\] [Watching a boy hitting his arm]

\[a.\] Taroo: Hanako-mo ____ yoku tataiern yo. 
\hspace{1cm} Hanako-also ____ often hit \hspace{1cm} PRT
\hspace*{1cm} ‘Hanako\(_1\) also often hits her\(_1\) arm.’

In short, the fact that a null argument produces a sloppy reading does not necessarily indicate that the null argument is generated under ellipsis, and hence, does not indicate that it is generated under argument ellipsis. This being so, the fact that external subjects in Bangla support sloppy readings does not necessarily indicate that Bangla permits argument ellipsis of external subjects. Indeed, the fact that null external subjects in Bangla do not admit indefinite readings suggests that Bangla does not, in fact, permit argument ellipsis of external subjects. If it did, one would expect indefinite readings to be possible. I will therefore take the impossibility of indefinite readings as an indication that Bangla does not allow argument ellipsis of external subjects, leaving open the question of why sloppy readings are possible.

The following examples demonstrate that null ‘nominative’ external subjects do not permit indefinite construals.\(^{14}\)

\[(62)\] \[a.\] tin-jon SonnyaSi Abhik-er sathe dEkha
\hspace{1cm} three-clitic priests Abhik-GEN with meet
\hspace*{1cm} korte elo. \hspace{1cm} do.INF come.PST.3
\hspace*{1cm} ‘Three priests came to see Abhik.’

\[b.\] Arun-er sathe-o ____ dEkha korte elo.
\hspace{1cm} Arun-GEN with-also ____ meet \hspace{1cm} do.INF come.PST.3
\hspace*{1cm} \(=\) (a) ‘They, the same three priests, came to see Arun, too.’
\hspace*{1cm} \(\neq\) (b) ‘Three (possibly different) priests came to see Arun, too.’
\hspace*{1cm} (Simpson, Choudhury, and Menon, 2013, p. 108)

\[(63)\] \[a.\] Abhik bhabe [je Ek-jOn SOnSi tar-SOnge
\hspace{1cm} Abhik think.PRS.3 [C one-clitic priest him-with
\hspace*{1cm} DEkha korte eSche].
\hspace{1cm} meet do.INF came.PST
\hspace*{1cm} ‘Abhik believes that a priest came to see him.’

\(^{13}\)For further evidence that null arguments that are not generated under ellipsis are capable of producing sloppy readings, see Hoji (1998, 2003).

\(^{14}\)I am grateful to Andrew Simpson for collecting the judgements in (63) and (64) on my behalf.
b. Arun bhabe [je __ tar-SOnge-o DEkha korte
Arun think.prs.3 [C __ him-with-also meet do.inf
eSeche].
came,pst

= (a) ‘Arun believes that he (i.e., the priest who came
to visit Abhik) came to see him, too.’

≠ (b) ‘Arun believes that a (possibly different) priest
came to see him, too.’

(Andrew Simpson, personal communication)

(64) a. Abhik [Ek-jOn SOunSi tar-SOnge DEkha korte
Abhik [one-clitic priest him-with meet do.inf
eSeche bole] bhabe.
came,pst C

think.prs.3

‘Abhik believes that a priest came to see him.’

b. Arun [C __ tar-SOnge-o DEkha korte eSeche
Arun [C __ him-with-also meet do.inf came,pst
bole] bhabe.
C]

think.prs.3

= (a) ‘Arun believes that he (i.e., the priest who came
to visit Abhik) came to see him, too.’

≠ (b) ‘Arun believes that a (possibly different) priest
came to see him, too.’

(Andrew Simpson, personal communication)

5.5 HINDI

Turning to Hindi, the following examples demonstrate that Hindi
permits VVPE. The examples also demonstrate that non-contrastive
objects do not raise out of VP, as in (66).

(65) a. Ram-ne Chomsky-ka naya lekh do baar
Ram-erg Chomsky-gen new writing two time
parha.
read,pst,msg

‘Ram read the new paper by Chomsky twice.’

b. Raj-ne-bhi parha.
Raj-erg also read,pst,msg

‘Raj also read the paper twice.’

c. Raj-ne-bhi vo lekh parha.
Raj-erg also that writing read,pst,msg

= (a) ‘Raj also read the paper.’

≠ (b) ‘Raj also read the paper twice.’

(Simpson, Choudhury, and Menon, 2013, p. 112)

(66) Raj-ne-bhi [vo lekh], [V-t [V [do baar] tv]] parha

In order to establish that Hindi allows argument ellipsis, it is
therefore necessary to examine sentences in which VVPE is blocked.
Simpson, Choudhury, and Menon (2013) provide the following example. Unfortunately, the diagnostic it uses is sloppy readings, which produce false positives when diagnosing ellipsis, as discussed above.

Amit-ERG self's girlfriend-ACC a book give.PST.F.SG  
‘Amit\(_k\) gave a book to his\(_k\) girlfriend.’

b. Ravi-ne-bhi ___ ek kitaab di.  
Ravi-ERG also ___ a book give.PST.F.SG  
‘Ravi\(_m\) also gave a book to his\(_m\) girlfriend.’

(Simpson, Choudhury, and Menon, 2013, pp. 111-112)

Simpson, Choudhury, and Menon (2013) also provide the following example. Note that the verb in the antecedent sentence differs from the verb in the elliptical sentence. Note, moreover, that in some languages, VVPE is subject to a verb-identity requirement: VVPE is possible only if the verbs in the antecedent and elliptical sentences are the same. On the other hand, there are languages in which VVPE is not subject to this requirement. Unfortunately, Simpson, Choudhury, and Menon (2013) do not test whether the verb-identity requirement holds in Hindi. If it does hold, then the following example demonstrates that Hindi does indeed allow argument ellipsis. If it does not hold, then the following example fails to demonstrate this.

(68) a. durghaTna-ke-baad Ram-ne teen sarkari  
incident-GEN-after Ram-ERG three government  
afsaron-ko phon kiya.  
officials-DAT phone did  
‘After the incident, Ram called three government officials.’

b. Par, Raj-ne ___ email kiya.  
but, Raj-ERG ___ email did  
‘Raj, however, just emailed three (possibly different) government officials.’

(Simpson, Choudhury, and Menon, 2013, p. 111, fn. 4)

More convincing evidence that Hindi allows argument ellipsis is thus required. Putting this issue aside, let us suppose that Hindi does indeed allow argument ellipsis and examine what predictions the current account of argument ellipsis makes.

\(^{15}\)For discussion of the verb-identity requirement and arguments that it holds in only some languages with VVPE, see Gribanova (2016) and the relevant references therein.
As with Bangla, Hindi has ‘nominative’ external subjects. These subjects do not bear case morphology. Moreover, they give rise to subject-verb agreement.

(69) Amit teen adhyapako-ki izzat karta hai.
    Amit three teachers-GEN respect do.PRS.M.SG.3 cop.PRS.3
    ‘Amit respects three teachers.’
    (Simpson, Choudhury, and Menon, 2013, p. 107)

As with Bangla, then, it is predicted that ‘nominative’ external subjects cannot undergo argument ellipsis. This prediction is borne out.

(70) a. bhasha vigyan-ke teen pradhyapak Gita-ko palal pari pasand karte hai.
    three professor Gita-ACC very like do.PRS.3 cop.PRS
    ‘Three professors from the Linguistics Department like Gita very much.’

b. ___ Sunita-ko-bhi pari pasand karte hai.
   ___ Sunita-ACC-also like do.PRS.PL.3 cop.PRS.3
   = (a) ‘They (i.e., the three professors who like Gita very much) also like Sunita.’
   ≠ (b) ‘Three (possibly different) professors also like Sunita.’
    (Simpson, Choudhury, and Menon, 2013, p. 108)

Hindi also has quirky subjects. Simpson, Choudhury, and Menon (2013) do not test whether null quirky subjects allow indefinite readings. They do show that null quirky subjects disallow sloppy readings. Similarly, null ‘nominative’ subjects disallow sloppy readings.

(71) a. Ram sochta hai uski beti-ko
    Ram think.PRS.M.SG.3 cop.PRS.3 his daughter-DAT
    Raj pari hai.
    Raj like.PRS cop.PRS.3
    ‘Ram_{i} thinks his_{i} daughter likes Raj.’

b. Ram-ka-bhai sochta hai
    Ram-GEN-brother think.PRS.M.SG.3 cop.PRS.3
    Pratap pari hai.
    Pratap like.PRS cop.PRS.3
    ‘Ram’s brother_{m} thinks his_{k/m} daughter likes Pratap.’
    (Simpson, Choudhury, and Menon, 2013, p. 116)

(72) a. Ram sochta hai uski beti Italian
    Ram think.PRS.M.3 cop.PRS.3 his daughter Italian
    paRr rhali hai.
    study.PRS.F.SG.3 cop.PRS.3
    ‘Ram_{i} thinks his_{i} daughter is studying Italian.’
b. Raj-bhi sochta hai ___ Italian
   Ram-also think-PRS.M.3 COP.PRS.3 ___ Italian
   paRh rahi hai.
   study.PRS.F.SG.3 COP.PRS.3
   ‘Raj\textsubscript{m} thinks his\textsubscript{h} daughter is studying Italian.’
   (Simpson, Choudhury, and Menon, 2013, p. 116)

However, the impossibility of the sloppy reading does not necessarily indicate that null subjects cannot be generated under argument ellipsis. This is because the possessive pronoun \textit{uski} simply does not support sloppy readings, even when its containing DP is in object position, a position that otherwise supports sloppy readings. Compare (73), which contains the pronoun \textit{uski} and does not allow a sloppy reading, with (74), which contains the possessive pronoun \textit{apni} and does allow a sloppy reading.\footnote{The obvious question that arises is whether (71) and (72) allow a sloppy reading with \textit{uski} replaced \textit{apni}. However, \textit{apni} is not allowed in embedded subject position (if I have understood Simpson, Choudhury, and Menon (2013) correctly); thus, the relevant examples cannot be constructed.}

(73) a. Amit-ne uski premika-ko ek kitaab di.
   Amit-ERG his girlfriend-ACC a book give.PST.F.SG
   ‘Amit\textsubscript{k} gave a book to his\textsubscript{k} girlfriend.’
   b. Ravi-ne-bhi ___ ek kitaab di.
   Ravi-ERG-also ___ a book give.PST.F.SG
   ‘Ravi\textsubscript{m} also gave a book to his\textsubscript{h} girlfriend.’
   (Simpson, Choudhury, and Menon, 2013, p. 134)

(74) a. Ram-ne apni beti-ko computer
   Ram-ERG self’s.F daughter-DAT computer
diya.
   give.PST.M.SG
   ‘Ram\textsubscript{k} gave a computer to his\textsubscript{k} daughter.’
   b. Raj-ne ___ saikel diya.
   Raj-ERG ___ bicycle give.PST.M.SG
   ‘Raj\textsubscript{m} gave his\textsubscript{m} daughter a bicycle.’
   (Simpson, Choudhury, and Menon, 2013, p. 121)

As things currently stand, then, it is an open question as to whether null ‘nominative’ and null quirky subjects allow sloppy readings. It is also unknown whether null quirky subjects allow indefinite readings. What is known, though, is that null ‘nominative’ subjects do not allow indefinite readings, from which it can be concluded that null ‘nominatives’ cannot be targeted by argument ellipsis.

In addition to ‘nominative’ and quirky subjects, Hindi has ergative subjects. Neeleman and Weerman (1999) do not specify what
case features ergative case is composed of. That is, unlike what they do for accusative, which is defined as in (75-a), and nominative, which is defined as in (75-b), they do not provide a definition for ergative case.

(75)  
  a.  \text{ACC} = \langle -\text{MAR}, -\text{NOP} \rangle  
  b.  \text{NOM} = \langle +\text{TEP} \rangle  

Thus, it cannot be established whether the case shell that merges with ergative subjects is empty or filled. At present, then, the current account of argument ellipsis makes no predictions with respect to the availability of argument ellipsis of ergative subjects.\footnote{For completeness, though, I note that Simpson, Choudhury, and Menon (2013) report that null ergative subjects do not support sloppy readings. Again, however, the relevant example uses the pronoun\textit{ uski}. As such, the impossibility of sloppy readings is uninformative. As to indefinite readings, Simpson, Choudhury, and Menon (2013) do not test for this.}

5.6 Persia

The example in (76) indicates that Persian allows argument ellipsis. Note the null object’s indefinite construal. Note, also, that insertion of a definite pronoun results in the elimination of the indefinite construal, thus confirming that the null object is not\textit{ pro}_{\text{def}}. Finally, note that Persian does not allow VVPE, as is indicated by (77), which disallows the reading under (b). Thus, the null object in (76-b) is indeed generated under argument ellipsis, and not under VVPE.

(76)  
  a.  Kimea se-tâ mo’alem-ro davat kard.  
      Kimea three-clitic teacher-RÅ invitation did.3SG  
      ‘Kimea invited three teachers.’  
  b.  Parviz ham ___ davat kard.  
      Parviz also ___ invitation did.3SG  
      ‘Parviz also invited three (possibly different) teachers.’  
  c.  Parviz ham un-à-ro davat kard.  
      Parviz also him/her-PL-RÅ invitation did.3SG  
      ‘Parviz also invited them (\ie, the same three teachers).’  
      (Sato and Karimi, 2016, p. 6)

(77)  
  Kimea māshin-esh-o bā deghghat shost, va Arezu  
  Kimea car-her-RÅ with precision washed.3SG and Arezu  
  ___ xoshk kard.  
  ___ dry did.3SG  
  = (a) ‘Kimea$_i$ washed her$_i$ car carefully, and Arezu$_j$ dried her$_j$ car.’  

\footnote{For completeness, though, I note that Simpson, Choudhury, and Menon (2013) report that null ergative subjects do not support sloppy readings. Again, however, the relevant example uses the pronoun\textit{ uski}. As such, the impossibility of sloppy readings is uninformative. As to indefinite readings, Simpson, Choudhury, and Menon (2013) do not test for this.}
(b) ‘Kimea$_i$ washed her$_i$ car carefully, and Arezu$_j$ dried her$_j$ car carefully.’

(Sato and Karimi, 2016, p. 5)

External subjects in Persian do not bear case morphology. Moreover, they exhibit subject-verb agreement. It can therefore be concluded that they are licensed under head marking. As such, the present account predicts that external subjects in Persian are unable to undergo argument ellipsis. This prediction is correct. As the following example indicates, the null subject cannot be construed indefinitely. It must, rather, be construed definitely; i.e., as referring back to the three students just mentioned. This latter reading is the reading that is produced by definite pronouns, as (78-c) demonstrates.

(78) a. Kimea goft \[_{\text{CP}} \text{ke se-tā dāneshju mi-tun-an} \]
    Kimea said C three-CLITIC student ASP-can-3PL
    English talk SBJV-hit-3PL
    ‘Kimea said that three students can speak English.’

b. Parviz goft \[_{\text{CP}} \text{ke ___ mi-tun-an farānse harf} \]
    Parviz said C ASP-can-3PL French talk
    SBJV-hit-3PL
    = (a) ‘Parviz said that they (i.e., the same three students) can speak French.’
    ≠ (b) ‘Parviz said that three (possibly different) students can speak French.’

c. Parviz goft \[_{\text{CP}} \text{ke unā mi-tun-an farānse harf} \]
    Parviz said C they ASP-can-3PL French talk
    SBJV-hit-3PL
    = (a) ‘Parviz said that they (i.e., the same three students) can speak French.’
    ≠ (b) ‘Parviz said that three (possibly different) students can speak French.’

(Sato and Karimi, 2016, pp. 6-7)

Before bringing the discussion of Persian to a close, a potential complication should be noted. Sato and Karimi (2016) note that null subjects give rise to sloppy readings, provided the subject is an inanimate plural. Such is not the case with null subjects that are not inanimate plurals. Compare (79) with (80).\(^{18}\)

\(^{18}\)Note that subject-verb agreement is optional in Persian when the subject is an inanimate plural.
(79) a. Kimea goft [CP ke kâr-â-sh hamishe natije Kimea said C work-PL her always result mi-d-e/an].
ASP-give-3SG/3SG
‘Kimea said that her works always provide results.’
b. ammâ Sepide goft [CP ke _ hamishe natije but Sepide said that _ always result ne-mi-d-e/an].
NEG-ASP-give-3SG/3PL
‘But Sepide said that her (i.e., Sepide’s) works always provide no results.’

(Sato and Karimi, 2016, p. 21)

(80) a. Kimea goft [CP ke dust-esh farsi balad-e].
Kimea said C friend-her Farsi know-3SG
‘Kimea said that her friend knows Farsi.’
b. Parviz goft [CP ke _ farânse balad-e].
Parviz said C _ French know-3SG
‘Parviz said that he (i.e., Kimea’s friend)/*Parviz’s friend knows French.’
c. Parviz goft [CP ke un farânse balad-e].
Parviz said C he French know-3SG
‘Parviz said that he (i.e., Kimea’s friend)/*Parviz’s friend knows French.’

(Sato and Karimi, 2016, p. 5)

Further investigation of null inanimate plurals—and, in particular, whether they permit indefinite construals—must be postponed until future work.

5.7 TURKISH

The example in (81) demonstrates that Turkish does not allow VVPE. This being so, the example in (82)—and, in particular, the possibility of the indefinite construal under (b)—indicates that Turkish has argument ellipsis of internal arguments.

(81) a. Can sorun-u luzla çöz-düi.
John problem-ACC quickly solve-PST
‘John solved the problem quickly.’
b. Filiz-se _ çöz-me-di.
Phylis-however _ solve-NEG-PST
= (a) ‘Phylis did not solve the problem.’
≠ (b) ‘Phylis did not solve the problem quickly.’

(Şener and D. Takahashi, 2010, p. 89)

(82) a. Can üç hırsız yakala-di.
John three burglar catch-PST
‘John caught three burglars.’
b. Filiz-se ___ sorgula-du.
   Phylis-however ___ interrogate-PST
   = (a) ‘However, Phylis interrogated them (i.e., the three
   burglars John caught).’
   = (b) ‘However, Phylis interrogated three (possibly dif-
   ferent) burglars.’

(Şener and D. Takahashi, 2010, p. 88)

Turning to external subjects, Turkish generally exhibits subject-
verb agreement. In such sentences, the external subject does not
carry any case morphology. The following examples, from Şener
and D. Takahashi (2010), serve as an illustration.

(83)  a. (Ben) bu makale-yi yavaşyava(s) oku-yacağ-im.
      (I) this article-ACC slowly read-FUT-1SG
      ‘I will read this article slowly.’
   b. (Biz) her hafta sinema-ya gid-er-iz.
      (we) every week movies-DAT go-AORIST-1PL
      ‘We go to the movies every week.’

(Şener and D. Takahashi, 2010, p. 96)

There are, however, contexts in which subject-verb agreement is
absent. First, there are certain adjunct clauses that do not exhibit
subject-verb agreement (Kornfilt, 2001; Öztürk, 2001).

(84) Ben konuş-ur-ken, o güül-yör-du.
   I talk-AORIST-while s/he laugh-PROG-PST
   ‘While I was talking, s/he was laughing.’

(Öztürk, 2001)

Secondly, in ECM-contexts, subject-verb agreement is absent.

(85) Pelin [ben-i/sen-i/on-u lise-ye başla-yacak]
     Pelin [I/you/he/she-ACC high.school-DAT start-FUT]
     san-iyor.
     think-PPRS
     ‘Pelin thinks I/you/he/she will start high school.’

(Şener and D. Takahashi, 2010, p. 96)

With regard to sentences such as those in (83), in which case
morphology is absent and agreement is present, it can be concluded
that the external subject is licensed under head marking. As for
sentences such as (84) and (85), the question of how the external
subject is licensed in such sentences cannot be established without
a more careful analysis. Thus, the present account predicts that
Turkish will disallow argument ellipsis in sentences such as (83);
presently, it makes no predictions with respect to sentences such as
(84) and (85).
With respect to sentences such as (83), Şener and D. Takahashi (2010) argue that argument ellipsis of external subjects is not possible. This argument is based upon two observation: in such sentences, (i) null external subjects do not permit indefinite readings (compare with null objects, which do); (ii) null external subjects do not permit sloppy readings; (by contrast, null objects do).

(86) a. Üç öğretmen Can-ı eleştir-dı.
three teacher John-ACC criticize-PST
‘Three teachers criticized John.’

b. ___ Filiz-i-ye öv-dü.
___ Phylis-ACC-however praise-PST
= (a) ‘However, they (i.e., the three teachers who criticized John) praised Phylis.’
≠ (b) ‘However, three (possibly different) teachers criticized Phylis.’

(Şener and D. Takahashi, 2010, p. 91)

John his son-3SG English learn-PRS C know-PRS
‘John knows his son learns English.’

b. Filiz-se ___ Fransızca öğren-iyor diye
Phylis-however ___ French learn-PRS C
know-PRS
‘However, Phylis knows that John’s son/*her son learns French.’

(Şener and D. Takahashi, 2010, p. 91)

Şener and D. Takahashi (2010) argue that null subjects in sentences such as (84) and (85) do allow sloppy readings.¹⁹

(88) a. Can [pro oğl-u] İngilizce öğren-incé
John his son-3SG.POSS English learn-because
sevin-di.
be.pleased-PRS.PFV
‘John is pleased because his son has learned English.’

b. Filiz-se ___ Fransızca öğren-incé
Phylis-however ___ French learn-because
sevin-di.
be.pleased-PRS.PFV
‘However, Phylis is pleased because Phylis’s son has learned French.’

(Şener and D. Takahashi, 2010, p. 95)

¹⁹They do not test whether null subjects in such sentences allow indefinite readings.
On the basis of these data, Şener and D. Takahashi (2010) conclude that Turkish allows argument ellipsis of subjects in those cases in which agreement is absent. Simpson, Choudhury, and Menon (2013), however, call into question the factual validity of some of the judgements reported in Şener and D. Takahashi (2010). Specifically, they retested with six speakers the judgements in (87), (88) and (89). Simpson, Choudhury, and Menon (2013) report that the empirical picture is quite unclear. First, there is inter-speaker variation. Some speakers accept sloppy readings in all three sentences. Others accept it only some of the times. With regard to the latter group, the availability of sloppy readings does not correspond to the absence of agreement. Simpson, Choudhury, and Menon (2013, p. 118) ultimately conclude that “[t]he AE patterns in Turkish would therefore seem to still be rather murky and in need of further investigation and clarification”, a sentiment I share.

Setting aside the sloppy readings, what remains is the judgement in (86), which indicates that null subjects in sentences with agreement do not permit an indefinite interpretation. This observation, if factually correct, is predicted by the account of argument ellipsis proposed in the present study.
STRONG ISLANDS AS ABSOLUTE BARRIERS TO MOVEMENT

6.1 INTRODUCTION

Under what is arguably the standard view of strong islands (SIs), SIs constitute *absolute* barriers to movement: whenever movement takes place across an SI, ungrammaticality ensues.\(^1\) This view of SIs contrasts with an alternative view, under which movement can indeed take place across SIs, albeit only under specific conditions. For instance, a number of authors have argued that movement can cross SIs, provided the island is subsequently elided (Chomsky, 1972; Lasnik, 2001; Merchant, 2008; Ross, 1969). Similarly, various authors studying wh-in-situ languages have proposed that movement can take place across SIs, provided this movement takes place covertly (Hagstrom, 1998; Huang, 1982). Finally, in recent work, Boeckx (2003), building on earlier work by Demirdache (1991) and Ross (1967), proposed that movement can cross SIs, provided the moved expression leaves behind a resumptive pronoun (RP). In short, then, the two views of strong islandhood differ in that, under the standard view, the barrierhood of SIs is absolute, ruling out all instances of extraction, whereas under the alternative view, the barrierhood can be circumvented, but only under certain conditions.

The two views of strong islandhood can be evaluated by examining areas of grammar in which the two views produce contrasting predictions. One such area concerns the distribution of SI-crossing A’-reconstruction. Under traditional conceptions of A’-reconstruction, reconstruction is an exclusive property of movement-derived chains: movement-derived chains exhibit reconstruction; base-generated chains do not. The standard view of SIs, under which SI-crossing movement is impossible, therefore predicts that SI-crossing reconstruction should be impossible. By contrast, the alternative

\(^1\)With the exception of section 6.6, the present chapter is a lightly revised reproduction of Panitz (2014). Section 6.6 is new.
view, under which SI-crossing movement is permitted, predicts that SI-crossing reconstruction should be possible, provided the conditions enabling SI-crossing movement are met.

Recent studies of A’-reconstruction suggest that the traditional picture needs revision (Guilliot and Malkawi, 2009, 2012; Moulton, 2013; Rouveret, 2008). The authors of these studies argue that base-generated chains do indeed permit reconstruction, though the reconstruction witnessed here differs in certain respects from the sort of reconstruction associated with movement-derived chains. Since the study in the present chapter utilizes reconstruction as a means of evaluating the two views of strong islandhood, it is necessary to first establish what predictions each view makes regarding the distribution of SI-crossing A’-reconstruction. The following section will be devoted to this task, as well as to a discussion of previous studies of SI-crossing reconstruction.

Section 6.3 presents the results of an online survey whose purpose was to examine whether Brazilian Portuguese (BP) and Hebrew permit SI-crossing reconstruction down wh-RP chains. As will be discussed further, below, there exist two classes of BP and Hebrew speakers: those who never allow reconstruction down wh-RP chains, and those who do, but only when the sentence does not contain an SI. These results, and in particular, those of the latter group, provide support for the standard view of SIs and against the alternative view.

The survey also revealed that some BP and Hebrew speakers accept SI-crossing wh-gap dependencies. The results of a chi-squared test reveal that speakers of these two languages accept SI-crossing wh-gap dependencies if and only if they accept SI-crossing wh-RP dependencies. On the basis of this result, I propose that the gap-position does not contain a trace, but rather a covert RP, and that this RP is what underlies the acceptability of SI-crossing wh-gap dependencies. Moreover, since the results from the reconstruction-data reviewed above indicate that SI-crossing wh-RP dependencies are obligatorily base-generated, it can be concluded that the dependency between the wh-phrase and the covert RP is obligatorily base-generated, as well—as expected, under the standard view of strong islandhood.
Section 6.4 reports the results of small-scale informant work on BP. Here, I again test for SI-crossing reconstruction, but this time with wh-gap chains, rather than with wh-RP chains. The results indicate that SI-crossing reconstruction is allowed to a limited extent, but in a manner consistent with the predictions of the standard view, and inconsistent with those of the alternative view. Section 6.5 summarizes and closes.

6.2 RECONSTRUCTION AND STRONG ISLANDHOOD

Recent studies of A’-reconstruction have concluded that reconstruction is not an exclusive property of movement-derived A’-chains: in some languages, reconstruction is a property of base-generated chains, too. These studies have also concluded that base-generated reconstruction differs in certain respects from movement-based reconstruction, meaning that the two types of A’-chains can be distinguished on the basis of reconstruction data. Section 6.2.1 presents evidence that base-generated reconstruction is possible, and Section 6.2.2 illustrates what predictions the two views of SI-s make, once base-generated reconstruction is considered possible. Section 6.2.3 discusses the results of previous studies which examine the (un)availability of SI-crossing reconstruction.

6.2.1 Two Classes of Reconstruction

Moulton (2013), Rouveret (2008), and Guilliot and Malkawi (2009, 2012) argue that base-generated reconstruction is possible, at least in some languages; however, base-generated reconstruction differs from movement-based reconstruction in that “reconstruction conflicts” occur only with movement-based reconstruction.

The term “reconstruction conflicts” refers to contexts in which the reconstructing XP is subject to two, conflicting requirements. The following examples serve as an illustration.

---

2I will use the term “base-generated reconstruction” to refer to the sort of reconstruction which occurs with base-generated chains, and “movement-based reconstruction” for the sort of reconstruction taking place down movement-derived chains.

3The term is due to Moulton (2013), I believe.
In the sentences above, we are interested in knowing whether the quantifier can bind the co-indexed pronoun, and whether Bresnan and she can corefer—that is, whether the sentences admit a reading in which bound variable anaphora (BVA) and coreference are both present. In order to generate the bound variable reading, the wh-phrase must reconstruct under the quantifier. On the other hand, the wh-phrase must not reconstruct below Bresnan, if coreference is to be possible (given Condition C). In (1-b), there is no single position to which the wh-phrase could reconstruct which would satisfy both requirements (i.e., the two requirements are in conflict). Accordingly, the sentence does not admit a reading in which BVA and coreference both obtain. By comparison, (1-a) allows this reading, as it contains a position which simultaneously satisfies both requirements.

The preceding examples illustrate that movement-derived chains give rise to A’-reconstruction and to reconstruction conflicts. Turning to base-generated chains, Moulton (2013) argues that these chains also give rise to reconstruction, but that they do not exhibit reconstruction conflicts. Moulton bases his arguments on sentences containing a sentential topic, which he argues is base-generated in its surface position. Evidence in support of a base-generation analysis comes from two sources. First, citing Williams (1981), Grimshaw (1982), and Postal (1986), Moulton notes that sentential topics must bind DP-gaps, not CP-gaps. (Following Moulton, I will refer to this as the “DP-Requirement”.) This restriction can be illustrated by the contrast between (2-a) and (3-a). In (2-a), the sentential topic binds a CP-gap, as can be inferred from the fact that boasted selects CP-complements, not DP-complements. In (3-a), on the other hand, the sentential topic is able to bind a DP-gap, given that expected optionally selects DP-complements.

(2)  

a. *That he could lift 100 pounds, John boasted ___CP.

b. John boasted [CP that he could lift 100 pounds].

c. *John boasted [DP that]. (Moulton, 2013)
(3)  a. That Ms. Brown would lose Ohio, we never expected ___DP.
   b. We never expected [CP that Ms. Brown would lose Ohio].
   c. We never expected [DP that]. (Moulton, 2013)

Since movement leaves behind a trace whose category is identical to that of the moved expression, the data above, which illustrate that the categorial membership of the topic and the gap are distinct, indicate that the topic is base-generated in its surface position. As to how the topic is connected to the gap-position, Moulton proposes that a null pro-form is generated in the gap-position and is subsequently raised to a position immediately below the topic, creating an operator-variable chain.

(4)  \[ CP \ [CP \text{sentential topic}] \ [CP \text{OP} \ldots \text{tOP}] \]

An apparent exception to the DP-Requirement comes from examples in which the topic is related to a gap in post-nominal or post-adjectival position. Here, sentential topics are permitted, even though they seem to be binding a non-DP gap, as can be inferred from the fact that nouns and adjectives do not select DP-complements.

(5)  a. I knew that they would try to repair the damages. But that they would offer to replace the whole project, I had no idea.
   b. I knew that Rita didn’t report all her income. But that she was stealing from the company, I was not aware.  

(Moulton, 2013)

However, post-nominal and post-adjectival gaps are permitted only when the noun or adjective licenses null complement anaphora (NCA)—that is, when the noun or adjective licenses a null DP pro-form which stands in for a missing CP. The noun and adjective in (5) license NCA, as (6) illustrates, hence the acceptability of the sentential topics in (5).

(6)  a. They are going to replace the whole product? I had no idea.
   b. Rita was stealing from the company? Gosh, I was not aware. 

(Moulton, 2013)

By contrast, the noun ‘belief’ does not license NCA, hence the unacceptability of the sentential topic in (7-a).

---

4The requirement of a DP-gap can be made compatible with a movement-based treatment of sentential topics by positing a DP-shell for the sentential topic; i.e., [DP [CP ... ]]. See Moulton (2013, pp. 255-258) for arguments against such an approach.
The acceptability of the sentences in (5) thus falls under the generalization that sentential topics must bind DP-gaps—a generalization which motivates a base-generation analysis of sentential topics.

Moulton’s (2013) second argument for a base-generation analysis is based on the absence of reconstruction conflicts. Note, first, that pronouns contained within sentential topics may be bound by a quantifier contained within the main clause, suggesting that the topic has reconstructed below the quantifier.

However, sentential topics do not give rise to reconstruction conflicts. Both sentences, below, permit a reading in which coreference and BVA obtain simultaneously, contrary to what occurs with dislocated DPs.

The absence of reconstruction conflicts supports the conclusion that sentential topics are base-generated, and for the following reason: movement gives rise to reconstruction conflicts, presumably because of its successive-cyclic nature, which produces a reconstruction-site capable of bleeding Condition C in (a), but not in (b).

(Diagram based on Fox (1999, ex. 38))
If sentential topics were moved to their surface position, the representation of (9-a) and (9-b) would look like (10-a) and (10-b), respectively, incorrectly predicting a reconstruction conflict in (9-b).

In short, the DP-Requirement and the absence of reconstruction conflicts support a base-generation analysis of sentential topics. What remains to be explained under such an analysis is why sentential topics exhibit reconstruction effects (i.e., why the quantifier in (8) and (9) is able to bind the pronoun). Moulton (2013) develops an analysis which succeeds in generating the reconstruction effects, and, crucially, does so without requiring the topic to reconstruct under the quantifier, thereby accounting for the absence of Condition C effects in (9-b). Sentential topics thus provide evidence that base-generated chains permit reconstruction, and, therefore, that reconstruction is not an exclusive property of movement-chains.

Rouveret (2008) and Guilliot and Malkawi (2009, 2012) provide additional evidence that base-generated chains permit reconstruction. In French and Welsh, resumption-chains (i.e., chains containing an RP) exhibit reconstruction, as the following data indicate.

(11) ?Quelle photo de lui1 est-ce que tu te demandes si chaque homme1 a déchirée?
‘Which picture of his do you wonder whether each man1 has torn?’ (Guilliot and Malkawi, 2012)

(12) Mae gan Siôn farn ar ei lyfr y mae pob awdur yn ei pharchu.
‘Siôn has an opinion about his book that each author1 respects it.’ (Rouveret, 2008)

However, the resumption-chains do not give rise to reconstruction conflicts.

(13) a. Quel résumé qu'il a donné à Hamida est-ce que chaque étudiant1 se demande si elle2 va le corriger?
‘Which abstract that he has given to Hamida does each student1 ask if she will amend it?’

I refer the reader to Moulton (2013) for the details of his analysis.
‘Which abstract that he1 gave to Hamida2 does each student1 wonder if she2 will amend it?’

b. Quel article qu-Hamida2 lui1 a donné est-ce which article that-Hamida to.him has given Q qu’elle2 se demande si chaque étudiant1 va le she REF L asks if each student goes it réviser? revise ‘Which article that Hamida2 gave to him1 does she2 wonder if each student1 will revise it?’

(Guilliot and Malkawi, 2012)

(14) a. *barn yr athro ar [ei1 mab]2 y gwyr pob opinion the teacher on her son COMP knows each mam1 y mae ef2 yn ei chuddio mother COMP is he PROG it conceal ‘the teacher’s opinion of [her1 son]2 that each mother1 knows that he2 conceals’

b. *barn yr athro ar [ei1 mab]2 y gwyr ef2 opinion the teacher on her son COMP knows he y mae pob mam1 yn ei pharchu COMP is each mother PROG it respect ‘the teacher’s opinion of [her1 son]2 that he2 knows that each mother1 respects’

(Rouveret, 2008)

In French, the reading in which BVA and coreference simultaneously obtain is possible, independent of the relative positioning of the quantifier and the obviating pronoun; in Welsh, this reading is impossible, independently of how the quantifier and pronoun are positioned. Both sets of judgements depart from what we would expect to find if the resumption chains in the preceding examples were movement-derived, indicating that these chains are in fact base-generated. French and Welsh thus provide additional evidence in support of the conclusion that base-generated reconstruction is possible.6

6.2.2 Two Views on Strong Islandhood

The preceding discussion suggests the following understanding of Α’-reconstruction: movement-derived chains and base-generated chains exhibit reconstruction; however, only movement-derived chains exhibit reconstruction conflicts. Given this understanding of recon-

6I refer the reader to Guilliot and Malkawi (2009, 2012) and to Rouveret (2008) for a description of the mechanisms underlying base-generated reconstruction.
reconstruction, one can conclude that a given chain is movement-derived if that chain exhibits reconstruction conflicts. On the other hand, if a given chain does not exhibit reconstruction conflicts, one cannot immediately conclude that the chain was base-generated; there may be independent reasons for why the chain lacks reconstruction conflicts. That said, suppose a chain exhibits reconstruction conflicts, but only when it does not span an SI-boundary. Here, the range of explanations is quite limited: either one can conclude that the SI-crossing chain is base-generated, hence the absence of SI-crossing reconstruction conflicts, or one can maintain that the SI-crossing chain is movement-derived and propose that the absence of reconstruction conflicts is due to some property of the SI, itself. Evidently, the latter conclusion is motivated only to the extent that the proposal upon which it is based is itself motivated.

As to the two views of SIs and what they predict, let us consider a language in which some class of A'-chains (e.g., wh-RP chains, topic-gap chains, etc.) exhibits reconstruction conflicts. In particular, suppose we know that this class of A'-chains exhibits reconstruction conflicts in sentences which do not contain an SI, and that we wish to establish what happens when an SI is inserted. If the standard view of SIs is correct, one of the following outcomes will obtain: (1) the sentences will be ungrammatical; this will occur in languages in which the class of A'-chains under examination is obligatorily generated under movement; (2) the sentences will be grammatical, but they will not exhibit reconstruction conflicts; this will occur in languages in which the class of A'-chains has the option of being base-generated. By contrast, the alternative view of SIs predicts that such sentences will exhibit reconstruction conflicts, provided the class of A'-chains in the language under examination satisfies the conditions enabling SI-crossing movement.

Under what conditions is SI-crossing movement possible? Limiting our attention to proposals which link the availability of SI-crossing movement to the presence of an RP (as opposed to theories in which SI-crossing movement is sanctioned by ellipsis or by

\footnote{For instance, information structural factors may prevent a given constituent from reconstructing—hence, from exhibiting reconstruction conflicts (see Erteschik-Shir’s (1997) treatment of continuing topics).}

\footnote{The sentence may, however, exhibit reconstruction (though not reconstruction conflicts), if the language permits base-generated reconstruction.}
the covertness of the movement operation—see the references at the beginning of the article), I am aware of three proposals: Ross (1967), Perlmutter (1972), and Boeckx (2003). For Ross and Perlmutter, SI-crossing movement is always possible, so long as the moved expression leaves behind an overt RP. Such theories predict that SI-crossing reconstruction conflicts will occur whenever the moved expression binds an overt RP—an incorrect prediction, as the data presented below will indicate. Boeckx proposes that SI-crossing movement requires the moved expression to leave behind a resumptive pronoun (which may be overt or covert; see Boeckx (2003, pp.167-168, fn. 7)). As to the conditions under which RP-stranding movement may cross SIs, here, it is not necessary to elaborate on the details of Boeckx’s proposal, and for the following reason. In Boeckx’s system, all resumption-chains containing non-intrusive RPs are generated under movement.⁹ In languages in which resumption is non-intrusive, the following conclusion can thus be drawn: if a given SI-crossing resumption-chain is grammatical, it follows that the conditions enabling SI-crossing movement have been met, and we therefore expect to observe reconstruction conflicts. The BP and Hebrew data presented below demonstrate that this expectation is not fulfilled.

The three proposals just reviewed are similar in that they each predict BP and Hebrew to exhibit SI-crossing reconstruction. As already noted, the study in the present chapter tests these predictions, concluding that they are not supported. However, the present study is not meant as an assessment of these three proposals alone, but as a broader assessment of the view that SI-crossing movement is allowed, under certain circumstances. This view, however elaborated, makes the following prediction: there exist languages in which SI-crossing chains exhibit reconstruction conflicts. The standard view of SIs, by contrast, makes the following prediction: there do not exist languages in which SI-crossing chains exhibit reconstruction conflicts. Evidently, the nature of these predictions implies a research program in which a variety of languages are examined. The present study contributes to this larger program.

⁹By contrast, chains containing intrusive RPs may be base-generated, where intrusive RPs are those “instances of ‘resumption’ [which are] restricted to island contexts” (Boeckx, 2003, p. 149).
6.2.3 Literature Review

In this section, I have presented evidence indicating that base-generated reconstruction is sometimes possible, and I have detailed what predictions each view of SIs make, given the conclusion that base-generated reconstruction is possible. With this in place, I will now review the key data emerging from previous studies of SI-crossing reconstruction.

In a series of studies, Aoun and colleagues examine the properties of resumption-chains in Lebanese Arabic, illustrating that these chains exhibit reconstruction, but not across SIs (Aoun, 2000; Aoun and Benmamoun, 1998; Aoun, Choueiri, and Hornstein, 2001). The examples in (15) demonstrate that resumption-chains exhibit reconstruction when an SI is not present; in each sentence, the pronoun contained within the dislocated expression can be bound by the co-indexed quantifier.\(^{10}\)

\[(15)\]
\[
a. \quad [\text{tolmiiz-a}_1 \text{ SSitaan}] \quad \text{bta9rfo} \quad \text{7ənno koll [student-her the.naughty].M know.2PL that every m9allme}_1 \text{ 7aasz-o. teacher.F punished-him 'Her\(_1\) naughty student], you know that every teacher\(_1\) punished him.' (Aoun and Benmamoun, 1998)]
\[
b. \quad \text{‘left} \quad [\text{SSura } \text{taba9 obn-a}_1] \quad \text{yalli 7altó saw.1SG [the.picture of son-her] that said.2PL 7ənno koll mwazzafe}_1 \quad \text{badda 9alla7-a bi-maktab-a. that every employee.F want hang-it in-office-her ‘I saw [the picture of her\(_1\) son] that you said that every employee\(_1\) wants to hang it in her office.’ (Aoun, 2000)}
\]

However, when an SI is inserted, reconstruction becomes impossible.

(Note that these sentences are grammatical when the pronoun is not construed as bound by the quantifier.)

\[(16)\]
\[
a. \quad *[\text{tolmiiz-a}_1 \text{ SSitaan}] \quad \text{fallayto} \quad \text{7ablma koll [student-her the-naughty].M left.2PL before every m9allme}_1 \text{ t7aasz-o. teacher.F punished-him}
\]

\[\]

\(^{10}\)Note the following conventions.

(i)

\[
\begin{align*}
    7 & = \text{glottal stop} \\
    9 & = \text{voiced pharyngeal fricative} \\
    S & = \text{voiceless palato-alveolar fricative} \\
    h' & = \text{voiceless pharyngeal fricative} \\
    h'' & = \text{voiced glottal fricative}
\end{align*}
\]
When (15) is considered by itself, it is not possible to determine whether the resumption-chains in (15) are movement-derived or base-generated (recall that both types of A’-chains exhibit reconstruction—at least in principle). However, the fact that Lebanese Arabic does not permit SI-crossing reconstruction indicates that Lebanese Arabic does not permit base-generated reconstruction; if it did, the availability of reconstruction would be insensitive to the presence of SIs. This, in turn, suggests one of two conclusions: (1) In Lebanese Arabic, resumption-chains can be movement-derived or base-generated; in sentences which do not contain an SI, movement is possible, hence the availability of reconstruction, but in sentences which do contain an SI, movement is no longer possible, hence the unavailability of reconstruction; (2) resumption-chains in Lebanese Arabic are always movement-derived; the fact that reconstruction becomes impossible upon the insertion of an SI is due to some property of SIs. As already pointed out, the latter conclusion is ad hoc, unless one can explain why SIs prevent movement-derived chains from reconstructing. I will therefore set this conclusion aside, discussing it further only in the final section. Accepting conclusion #1, then, we can take the pattern of judgements exhibited in (15) and (16) as direct support for the standard view of SIs.

Agüero-Bautista (2001) demonstrates that a similar pattern is found in Spanish. Agüero-Bautista observes that sentences such as (17), in which a wh-phrase binds a resumptive pronominal clitic,
are ambiguous. (17) can be understood as a question which asks for the identity of a single individual—the individual whom all of the witnesses wanted to hit (e.g., Juan). Alternatively, it can be understood as a question which asks for a list of pairs, where the first member of each pair is a witness and the second member is the person whom that witness wanted to hit; for example: Maria said that the first witness wanted to hit Pablo, that the second witness wanted to hit Miguel, and that the third witness wanted to hit Pedro. By comparison, sentences such as (18), in which a resumption-chain crosses an SI, are unambiguous: the single-individual reading is possible, but not the pair-list reading. (The example in (19) shows that the bracketed clause in (18) is a strong island.)

(17) (Single-Individual Reading, Pair-List Reading)

A quién dijo María que cada testigo le quería pegar?

‘Who did Maria say that each witness wanted to hit him?’

(Agüero-Bautista, 2001)

(18) (Single-Individual Reading, *Pair-List Reading)

A cual coche piensa Pedro que [de cada mecánico reparar-le algo], iremos a NY?

‘Which car does Pedro think that [if each mechanic fixes something on it], we will go to NY?’

(Agüero-Bautista, 2001)

(19) *A cual dictador piensas que [de la corte enjuiciar ___] saldría en primera plana?

‘Which dictator do you think that [if the court prosecutes ___], it will make the front page?’ (Agüero-Bautista, 2001)

In order to generate the pair-list reading, the wh-phrase must be interpreted within the scope of the quantifier; that is, reconstruction must take place. The preceding examples thus illustrate that Spanish allows reconstruction down resumption-chains, but only when

an SI does not intervene. This result is what is expected under the
standard view of SIs, but unexpected, under the alternative view.

French and Jordanian Arabic differ from Lebanese Arabic and
Spanish in allowing SI-crossing reconstruction. Examples (20) and
(21) illustrate that reconstruction takes place down resumption-
chains in sentences which do not contain an SI, and examples (22)
and (23) demonstrate that resumption-chains permit SI-crossing
reconstruction.

(20) a. La photo de sa\textsubscript{1} classe, chaque prof\textsubscript{1} l-a
the picture of his class, each teacher it-has
déchirée.
torn
‘The picture of his\textsubscript{1} class, each teacher\textsubscript{1} has torn it.’
b. ?Quelle photo de lui\textsubscript{1} est-ce que tu te demandes
which picture of his \textit{Q} that you \textit{REFL} ask
si chaque homme\textsubscript{1} l’a déchirée?
if each man it-has torn
‘Which picture of his\textsubscript{1} do you wonder whether each
man\textsubscript{1} has torn it?’ (Guilliot and Malkawi, 2012)

(21) a. talib-ha\textsubscript{1} l-kassoul ma baddna nxabbir wala
student-her the-bad \textit{NEG} want.\textit{1PL} tell.\textit{1PL} no
mc\textsubscript{3}allmih\textsubscript{1} 7innu-uh zaçbar b-l-fah’is.
teacher that-he cheated in-the-exam
‘Her\textsubscript{1} bad student, we don’t want to tell any teacher
that he cheated on the exam.’
b. 7aya Surrah l-abin-ha\textsubscript{1} kul marah\textsubscript{1} mazaçat-ha?
which picture of-son-her every woman tore-it
‘Which picture of her\textsubscript{1} son did every woman\textsubscript{1} tear it?’
(Guilliot and Malkawi, 2012)

(22) La photo de sa\textsubscript{1} classe, tu es fâché parce que
the picture of his class, you are furious because that
chaque prof\textsubscript{1} l-a déchirée.
each teacher it-has torn
‘The picture of his\textsubscript{1} class, you are furious because each teacher\textsubscript{1}
tore it.’ (Guilliot and Malkawi, 2012)

(23) a. talib-ha\textsubscript{1} l-kassoul ma ziçlat wala mc\textsubscript{3}allhih\textsubscript{1}
student-her the-bad \textit{NEG} upset no teacher
li7annu l-mudiirah kah’Sat-uh mn l-madrase.
because the-principal expelled-him from the-school
‘Her\textsubscript{1} bad student, no teacher\textsubscript{1} was upset because the
principal expelled him from school.’
b. 7aya Surrah l-abin-ha\textsubscript{1} Karim ziçil li7annu kul
which picture of-son-her Karim upset because every
marah\textsubscript{1} mazaçat-ha?
woman tore-it
‘Which picture of her son was Karim upset because every woman tore it?’ (Guilliot and Malkawi, 2012)

The availability of SI-crossing reconstruction might indicate that these languages allow SI-crossing movement, or it might indicate that these languages allow base-generated reconstruction. In order to test these two possibilities, it is necessary to look at sentences containing potential reconstruction conflicts. Guilliot and Malkawi (2012) do not do this for Jordanian Arabic. As for French, as observed above, reconstruction conflicts are absent in sentences which do not contain an SI.\(^\text{12}\) As concluded above, the absence of reconstruction conflicts in sentences in which movement should be (relatively) acceptable indicates that resumption-chains in French are obligatorily base-generated, even when an SI does not intervene. French resumption-chains cannot therefore be used to investigate the barrierhood of SIs.

(24) a. Quel résumé qu'\(h_1\) a donné à Hamida qu'\(e_1\) que chaque étudiant \(s_1\) se demande si elle \(h_2\) va \(l_1\) le \(r_1\) corriger amend? ‘Which abstract that he \(h_1\) gave to Hamida \(e_1\) does each student \(s_1\) wonder if she \(h_2\) will amend it?’

b. Quel article qu-Hamida lui \(h_1\) a donné est-ce qu'elle \(e_1\) se demande si chaque étudiant \(s_1\) va \(l_1\) le réviser revise? ‘Which article that Hamida \(h_1\) gave to him \(h_1\) does she \(e_1\) wonder if each student \(s_1\) will revise it?’

(Guilliot and Malkawi, 2012)

Summarizing, the reconstruction profile of the Lebanese Arabic and Spanish supports the standard view of SIs; the reconstruction profile of Jordanian Arabic is incomplete and, at present, uninformative as the status of SIs; and the reconstruction profile of French does not bear upon the status of SIs.

\(^{12}\)It should be noted, though, that the sentences do contain a weak island. Still, since weak islands in French otherwise allow reconstruction (see (20-b)), it does not seem likely that the absence of reconstruction conflicts can be attributed to some property of weak islands.
6.3 RECONSTRUCTION AND ISLAND-CROSSING RESUMPTION-CHAINS

The present section presents the results of an online survey whose purpose was to establish whether BP and Hebrew allow SI-crossing reconstruction down resumption-chains. I will begin by discussing the survey’s design and then proceed to the survey’s results.

6.3.1 Survey Design

Two versions of the survey were constructed: one, written entirely in Hebrew, and the other, written entirely in BP. Since the two versions are otherwise identical, I will use the term, “the survey”, in what follows.

The survey was divided into two sections. The first section contained the following three wh-questions. These wh-questions are potentially ambiguous between a single-individual reading and a pair-list reading. Under the single-individual reading, the questions ask for a single poem/novel such that all of the professors will talk about that poem/novel. Under the pair-list reading, the questions ask for a list of pairs, such that the first member of each pair is a professor and the second member is the poem/novel which that professor will talk about. For instance, under its pair-list reading, (25) can be answered as follows: The organizer said that Professor Jones will talk about “The Sun”, that Professor Smith will talk about “The Moon”, and that Professor Williams will talk about “The Stars”.

(25) Reconstruction; No island

a. Qual poema que o organizador disse que cada um dos professores vai falar sobre ele?
   ‘Which poem did the organizer say that each of the professors will talk about it?’

b. eize roman ha-me’argen amar Se-kol exad me-ha-profesorim yedaber al-av?
   ‘Which novel did the organizer say that each one from-the-professors will talk about it?’
(26) Reconstruction; Adjunct Island
   a. Qual poema que você vai sair antes que cada
      which poem COMP you will leave before that each
      um dos professores fale sobre ele?
      one of.the professors talks.SBJV about it
      ‘Which poem will you leave (the lecture) before each of
      the professors talks about it?’
   b. eize roman ata tece lifnei Se-kol exad
      which novel you will leave before that each one
      me-ha-profesorim yedaber al-av?
      of-the-professors will talk about it
      ‘Which novel will you leave (the lecture) before each of
      the professors talks about it?’

(27) Reconstruction; Relative Clause Island
   a. Qual poema que a reitora vai repreender os
      which poem COMP the dean will reprimand the
      alunos que apostaram que cada um dos
      students that bet.PST that each one of the
      professores vai falar sobre ele?
      professors will talk about it
      ‘Which poem will the dean (fem.) reprimand the stu-
      dents who bet that each of the professors will talk about
      it?’
   b. eize roman ha-diknit tinzof ba-studentim
      which novel the-dean will reprimand in the students
      Se-hit'arvu Se-kol exad me-ha-profesorim
      that bet.PST that each one of the professors
      yedaber al-av?
      will talk about it
      ‘Which novel will the dean (fem.) reprimand the stu-
      dents who bet that each of the professors will talk about
      it?’

The wh-questions in (25) were used to establish whether the
participants permit reconstruction down resumption-chains in sen-
tences which do not contain an SI. The sentences in (26) and (27)
established whether the participants permit reconstruction down
resumption-chains in sentences which do contain an SI.

The following sentences were included as a control. In these sen-
tences, reconstruction would not place the wh-phrase within the
quantifier’s scope, meaning that the pair-list reading should not be
possible.

(28) a. Qual professor que \(t_{\text{wh}}\) disse que vai falar sobre
      which professor COMP \(t_{\text{wh}}\) said that will speak about
      cada um dos poemas?
      each one of the poems
‘Which professor said that he will speak about each of the poems?’

b. eize profesor $t_{wh}$ amar Se-hu yedaber al which professor $t_{wh}$ said that-he will speak about kol $exad$ me-ha-romanim? each one of-the-novels ‘Which professor said that he will speak about each of the novels?’

The questions in (25) through (28) were each embedded within a short vignette. Each of these vignettes ended with one of the vignette’s protagonists wishing to gain information about an upcoming lecture in which three professors would each be speaking about a different poem/novel. In particular, the protagonist wishes to know something about the professor-poem/novel pairings, and, to this end, asks one of the wh-questions, above. The survey’s participants are then asked to indicate whether the question would succeed in eliciting the information which the protagonist is seeking, where the question would succeed in doing so only if it permitted a pair-list reading. The participants were also asked to explain their answers, making it possible to verify that they were basing their responses on the (un)availability of pair-list readings, rather than on any other considerations.

In short, the purpose of the vignettes was to facilitate the elicitation of pair-list readings from individuals who, in some cases, had little-to-no background in formal syntactic theory. Moreover, the vignettes served to render the pair-list readings salient.

The survey’s instructions contained a sample vignette with two alternative endings. In one ending, the protagonist’s wh-question does not admit a pair-list reading; in the other ending, it does. The participant is told that the first question would not succeed in eliciting the desired information, as it implies that each piano student would play the same piano sonata.\(^{13}\) The participant is then told that the second question would indeed succeed in eliciting the desired information because this time around, it is clear that each student will play a different sonata. The purpose of these two wh-questions was to tacitly encourage the participants to judge the ensuing wh-questions on the basis of whether they permitted a pair-list reading. Indeed, this strategy seemed to work, as a number of

\(^{13}\)The sample vignette paired piano students with sonatas, rather than professors with poems/novels.
the participants fashioned their responses after the responses given in the sample vignette (e.g., “This question wouldn’t work because it implies that all of the professors will talk about the same poem.”).

The second part of the survey consisted of six wh-questions. The purpose of these questions was threefold: (1) to establish, for each participant, whether s/he accepts adjunct-crossing and relative clause-crossing resumption chains; (2) to establish, for each participant, whether s/he accepts resumption-chains in sentences which do not contain an SI; (3) to establish, for each participant, whether s/he accepts adjunct-crossing and relative clause-crossing wh-gap dependencies.

Regarding the first point, if a given participant does not accept adjunct-crossing resumption-chains, it does not make sense to ask whether that participant accepts adjunct-crossing reconstruction down resumption-chains. Similarly, it does not make sense to ask whether reconstruction takes place down relative clause-crossing resumption-chains for individuals who do not accept such chains. For this reason, it is necessary to ascertain whether the participants accept adjunct- and relative clause-crossing resumption.

As to the second point, suppose some participants accept resumption-chains, but only in sentences containing an SI. Instances of resumption which are limited to island-contexts are, under Boeckx’s (2003) system, base-generated, and are therefore not expected to exhibit reconstruction (assuming that Hebrew and BP do not permit base-generated reconstruction, that is). By contrast, the resumption-chains of the participants who accept resumption in all environments are, under Boeckx’s system, movement-derived, and are therefore expected to admit reconstruction. In interpreting the results of the survey, it will be useful to distinguish these two classes of speakers.

As to the third point, in order to investigate SI-crossing reconstruction, it is necessary to establish that adjuncts and relative clauses are indeed strong islands for the survey’s participants.

Altogether, the three points just elaborated upon comprise five distinct conditions. Along with a baseline judgement, the structure of the second part of the survey is as follows:

(29) Structure of the second part of the survey
a. Baseline Judgement: Wh-gap chain; No island
b. Condition #1: Wh-RP chain; Adjunct Island
c. Condition #2: Wh-RP chain; Relative Clause Island
d. Condition #3: Wh-RP chain; No island
e. Condition #4: Wh-gap chain; Adjunct Island
f. Condition #5: Wh-gap chain; Relative Clause Island

Each condition was instantiated by one wh-question, totaling five wh-questions. These five wh-questions and the baseline judgement are listed below:

(30) Baseline Judgement: Wh-gap chain; No island
    a. Qual poema que o cara que grava as
       which poem COMP the guy that records the
       palestras te disse que o Professor Silva vai
       lectures 2.sg told that the Professor Silva will
       analisar __?
       analyze __
       ‘Which poem did the guy who records the lectures tell
       you that Professor Silva will analyze __?’
    b. eize roman ha-baxur Se-masrit et ha-harca’ot
       which novel the-guy that-records ACC the-lectures
       amar le-xa Se-profesor arazi yenateax __?
       said to-you that-Professor Arazi will.analyze __
       ‘Which novel did the guy who records the lectures tell
       you that Professor Arazi will analyze __?’

(31) Condition #1: Wh-RP chain; Adjunct Island
    a. Qual poema que você vai sair antes que o
       which poem COMP you will leave before that the
       Professor Silva fale sobre ele?
       Professor Silva talks.sbjv about it
       ‘Which poem will you leave (the lecture) before Professor
       Silva talks about it?’
    b. eize roman ha-baxur Se-profesor
       which novel you will.leave before that-Professor
       arazi yedaber al-av?
       Arazi will.talk about-it
       ‘Which novel will you leave (the lecture) before Professor
       Arazi talks about it?’

(32) Condition #2: Wh-RP chain; Relative Clause Island
    a. Qual poema que ela vai repreender os alunos
       which poem COMP she will reprimand the students
       que apostaram que o Professor Silva vai falar
       that bet.pst that the Professor Silva will talk
       sobre ele?
       about it
       ‘Which poem will she (=the dean) reprimand the stu-
       dents who bet that Professor Silva will talk about it?’
b. eize roman ha-diknit tinzof ba-studentim
which novel the-dean will.reprimand in.the-students
Se-hit'arvu Se-profesor arazi yedaber al-av?
that-bet.pst that-Professor Arazi will.talk about-it
‘Which novel will the dean (fem.) reprimand the students who bet that Professor Arazi will talk about it?’

(33) Condition #3: Wh-RP chain; No island

a. Qual poema que você acha que o Professor
which poem COMP you think that the Professor
Silva vai falar sobre ele?
Silva will speak about it
‘Which poem do you think Professor Silva will speak about it?’

b. eize roman at xoSevet Se-profesor arazi
which novel you think that-Professor Arazi
yedaber al-av?
will.speak about-it
‘Which novel do you think Professor Arazi will speak about it?’

(34) Condition #4: Wh-gap chain; Adjunct Island

a. Qual poema que você vai sair antes que o
which poem COMP you will leave before that the
Professor Silva analise __?
Professor Silva analyzes.sbjv __
‘Which poem will you leave (the lecture) before Professor Silva analyzes __?”

b. eize roman ata tece lifnei Se-profesor
which novel you will.leave before that-Professor
arazi yenateax __?
Arazi will.analyze __
‘Which novel will you leave (the lecture) before Professor Arazi analyzes __?”

(35) Condition #5: Wh-gap chain; Relative Clause Island

a. Qual poema que ela vai repreender os alunos
which poem COMP she will reprimand the students
que apostaram que o Professor Silva vai analisar
that bet.pst that the Professor Silva will analyze __?
‘Which poem will she (= the dean) reprimand the students who bet that Professor Silva will analyze __?”

b. eize roman hi tinzof ba-studentim
which novel she will.reprimand in.the-students
Se-hit’arvu Se-profesor arazi yenateax __?
that-bet.pst that-Professor Arazi will.analyze __
‘Which novel will she (= the dean) reprimand the students who bet that Professor Arazi will analyze __?”
Each of the wh-questions was embedded within a short vignette whose purpose was to contextualize the wh-questions. The participants rated the wh-questions on a 5-point scale (‘5’ = ‘completely natural’, ‘1’ = ‘completely unnatural’). For each participant, the grammaticality of a given condition $C$ (e.g., the grammaticality of adjunct-crossing resumption) was established by subtracting his/her judgement on $C$ from his/her judgement on the baseline $B$; if the difference was two points or less, $C$ was considered grammatical; if the difference was greater than two, $C$ was considered ungrammatical.

Summarizing, the survey consisted of ten wh-questions: four, examining reconstruction (i.e., the questions in the first section of the survey), and six, examining the acceptability of the conditions listed in (29) (i.e., the questions in the second section). Four versions of the BP-survey were constructed: in two of the versions, the first section preceded the second section, and in two of the versions, the second section preceded the first section. Internal to each section, the order in which the wh-questions were presented differed from version to version. As for the Hebrew-survey, three versions were constructed: one, opening with the first section, and two, with the second section. Again, the section-internal ordering of the wh-questions differed from version to version.

6.3.2 Survey Results

I will begin by presenting the data pertaining to reconstruction into Adjunct Islands and then turn to the data pertaining to reconstruction into Relative Clause Islands.

As the following data illustrate, BP and Hebrew speakers fall into two classes with respect to the availability of adjunct-crossing reconstruction. For some speakers, neither (36) nor (37) admits a pair-list reading. For these speakers, resumption-chains are obligatorily base-generated, independent of whether the chain crosses an island. By contrast, other speakers permit a pair-list reading in (36), but not in (37). This pattern of judgements replicates the pattern found in Spanish and Lebanon Arabic: resumption-chains permit reconstruction, but only in sentences which do not contain an SI. For these
speakers, then, resumption-chains can be movement-derived when an island is not present, but they must be base-generated upon the insertion of an island. This pattern of judgements is precisely what the standard view of SIs leads us to expect.

(36) Reconstruction; No island
   a. Qual poema que o organizador disse que cada
      which poem COMP the organizer said that each
      um dos professores vai falar sobre ele?
      one of the professors will talk about it
      ‘Which poem did the organizer say that each of the
      professors will talk about it?’
   b. eize roman ha-me’argen amar Se-kol exad
      which novel the-organizer said that-each one
      me-ha-profesorim yedaber al-av?
      from-the-professors will talk about it
      ‘Which novel did the organizer say that each of the
      professors will talk about it?’

(37) Reconstruction; Adjunct Island
   a. Qual poema que você vai sair antes que cada
      which poem COMP you will leave before that each
      um dos professores fale sobre ele?
      one of the professors talks.SBJV about it
      ‘Which poem will you leave (the lecture) before each of
      the professors talks about it?’
   b. eize roman ata tece lifnei Se-kol exad
      which novel you will leave before that-each one
      me-ha-profesorim yedaber al-av?
      of-the-professors will talk about it
      ‘Which novel will you leave (the lecture) before each of
      the professors talks about it?’

(38) Brazilian Portuguese: Adjunct Island
   a. 2 speakers —
      RECONSTRUCTION IN (36-a): YES
      RECONSTRUCTION IN (37-a): YES
   b. 13 speakers —
      RECONSTRUCTION IN (36-a): YES
      RECONSTRUCTION IN (37-a): NO
   c. 2 speakers —
      RECONSTRUCTION IN (36-a): NO
      RECONSTRUCTION IN (37-a): YES
   d. 20 speakers —
      RECONSTRUCTION IN (36-a): NO
      RECONSTRUCTION IN (37-a): NO

(39) Hebrew: Adjunct Island
a. 1 speaker —
   RECONSTRUCTION IN (36-b): YES
   RECONSTRUCTION IN (37-b): YES
b. 5 speakers —
   RECONSTRUCTION IN (36-b): YES
   RECONSTRUCTION IN (37-b): NO
c. 1 speaker —
   RECONSTRUCTION IN (36-b): NO
   RECONSTRUCTION IN (37-b): YES
d. 6 speakers —
   RECONSTRUCTION IN (36-b): NO
   RECONSTRUCTION IN (37-b): NO

Note that the data, above, do not include the judgements of those participants who rejected adjunct-crossing resumption. A total of twelve (out of 74) BP participants and sixteen (out of 34) Hebrew participants were thus excluded. Moreover, an additional seventeen BP participants and three Hebrew participants were excluded from the data, above—for example because their responses to the reconstruction-testing questions were unclear or because their responses suggested that the participants did not understand what they were being asked to do. Finally, eight BP participants and two Hebrew participants were excluded because they accepted a pair-list reading in (28), repeated below as (40), suggesting that these speakers have at their disposal some mechanism, possibly in addition to reconstruction, for generating the pair-list reading.\footnote{Note that both of these Hebrew participants and all but one of these eight BP participants rejected adjunct-crossing reconstruction; some of these participants also rejected reconstruction in (36). The exclusion of these participants’ data does not, therefore, meaningfully alter the results reported in the text.}

(40) a. Qual professor que \textit{t}^{wh} disse que vai falar sobre which professor \textit{comp} \textit{t}^{wh} said that will speak about cada um dos poems? each one of the poems ‘Which professor said that he will speak about each of the poems?’
b. eize profesor \textit{t}^{wh} amar e-hu yedaber al which professor \textit{t}^{wh} said that-he will speak about kol exad me-ha-romanin? each one of the novels ‘Which professor said that he will speak about each of the novels?’

As noted above, all of the participants included in (38) and (39) accept adjunct-crossing resumption. However, some of these individuals rejected (41), indicating that they do not accept wh-resumption in sentences which do not contain an island.
(41) Condition #3: Wh-RP chain; No island
   a. Qual poema que você acha que o Professor Silva vai falar sobre ele?
      ‘Which poem do you think Professor Silva will speak about it?’
   b. Eize roman at xoSevet Se-profesor a razí
      ‘Which novel do you think Professor Arazi will speak about it?’

Recall, now, that Boeckx (2003) proposes that resumption-chains which occur only in island-contexts are base-generated. Under Boeckx’s proposal, then, the speakers who rejected (41) base-generate adjunct-crossing resumption-chains, and more generally, SI-crossing resumption-chains. The fact that such speakers do not accept SI-crossing reconstruction is therefore expected under Boeckx’s proposal—that is, once it is observed that BP and Hebrew do not permit base-generated reconstruction, as the data above indicate. It is therefore appropriate to reconsider the results reported above, with the participants who rejected (41) removed. As the data below make clear, even with these participants excluded, the majority of the speakers continue to fall into the same two classes: one group of speakers rejects reconstruction in (36) and (37), while the other group accepts reconstruction in (36), only. As noted above, this distribution of judgements—and, in particular, the judgements of the latter group—lends support to the standard view of strong islandhood.

(42) Brazilian Portuguese: Adjunct Island
   a. 2 speakers —
      RECONSTRUCTION IN (36-a): YES
      RECONSTRUCTION IN (37-a): YES
   b. 10 speakers —
      RECONSTRUCTION IN (36-a): YES
      RECONSTRUCTION IN (37-a): NO
   c. 2 speakers —
      RECONSTRUCTION IN (36-a): NO
      RECONSTRUCTION IN (37-a): YES
   d. 13 speakers —
      RECONSTRUCTION IN (36-a): NO
      RECONSTRUCTION IN (37-a): NO

(43) Hebrew: Adjunct Island
A similar pattern is found with Relative Clause Islands. Some participants reject reconstruction in both (44) and (45); others accept reconstruction in (44), only. The tables in (46) and (47) include speakers who reject resumption in (41); the tables in (48) and (49) exclude these speakers.\footnote{Note that both sets of tables exclude the participants who do not accept relative clause-crossing resumption (38 participants for BP; 24, for Hebrew); participants who did not seem to understand the task and participants whose responses were such that it was not possible to determine whether they accepted reconstruction (11, for BP; 2, for Hebrew), and participants who accepted a pair-list reading for (28) (4, for BP; 0, for Hebrew).}
b. eize roman ha-diknit tinzof ba-studentim which novel the-dean will.reprimand in.the-students Se-hit’aru v Se-kol exad me-ha-profesorim that-bet. pst that-each one of-the-professors yedaber al-av? will.talk about-it
‘Which novel will the dean (fem.) reprimand the students who bet that each of the professors will talk about it?’

(46) Brazilian Portuguese: Relative Clause Island
a. 1 speaker —
RECONSTRUCTION IN (44-a): YES
RECONSTRUCTION IN (45-a): YES
b. 9 speakers —
RECONSTRUCTION IN (44-a): YES
RECONSTRUCTION IN (45-a): NO
c. 0 speakers —
RECONSTRUCTION IN (44-a): NO
RECONSTRUCTION IN (45-a): YES
d. 11 speakers —
RECONSTRUCTION IN (44-a): NO
RECONSTRUCTION IN (45-a): NO

(47) Hebrew: Relative Clause Island
a. 0 speakers —
RECONSTRUCTION IN (44-b): YES
RECONSTRUCTION IN (45-b): YES
b. 6 speakers —
RECONSTRUCTION IN (44-b): YES
RECONSTRUCTION IN (45-b): NO
c. 0 speakers —
RECONSTRUCTION IN (44-b): NO
RECONSTRUCTION IN (45-b): YES
d. 4 speakers —
RECONSTRUCTION IN (44-b): NO
RECONSTRUCTION IN (45-b): NO

(48) Brazilian Portuguese: Relative Clause Islands
a. 1 speaker —
RECONSTRUCTION IN (44-a): YES
RECONSTRUCTION IN (45-a): YES
b. 8 speakers —
RECONSTRUCTION IN (44-a): YES
RECONSTRUCTION IN (45-a): NO
c. 0 speakers —
RECONSTRUCTION IN (44-a): NO
RECONSTRUCTION IN (45-a): YES
d. 8 speakers —
RECONSTRUCTION IN (44-a): NO
RECONSTRUCTION IN (45-a): NO
(49) Hebrew: Relative Clause Islands
   a. 0 speakers —
       RECONSTRUCTION IN (44-b): YES
       RECONSTRUCTION IN (45-b): YES
   b. 6 speakers —
       RECONSTRUCTION IN (44-b): YES
       RECONSTRUCTION IN (45-b): NO
   c. 0 speakers —
       RECONSTRUCTION IN (44-b): NO
       RECONSTRUCTION IN (45-b): YES
   d. 4 speakers —
       RECONSTRUCTION IN (44-b): NO
       RECONSTRUCTION IN (45-b): NO

Taking a step back, the data presented thus far show quite clearly that speakers of BP and Hebrew do not accept reconstruction into adjuncts and relative clauses. These data—and, in particular, the judgements of the speakers who accepted reconstruction in sentences which do not contain an SI—were taken as supporting evidence for the standard view of SIs. There is, however, an assumption, implicit in this understanding of the data: namely, that adjuncts and relative clauses are strong islands for the speakers whose reconstruction data were reported above. If adjuncts and relative clauses are not strong islands for these speakers, then their judgements do not tell us anything about the possibility (or lack thereof) of SI-crossing movement.

Interestingly, most of the speakers whose reconstruction judgements are reported above accept adjunct-crossing wh-gap dependencies (see (50)); similarly, most of these speakers accept relative clause-crossing wh-gap dependencies (see (51)). If these individuals indeed accept extraction from adjuncts and relative clauses, then it would seem that these two structures are not strong islands for them; alternatively, these structures are strong islands for them, and their judgements indicate that SI-crossing movement is possible.

(50) Condition #4: Wh-gap chain; Adjunct Island
   a. Qual poema que você vai sair antes que o
      which poem COMP you will leave before that the
      Professor Silva analise __?
      Professor Silva analyzes.sbjv __
     ‘Which poem will you leave (the lecture) before Professor Silva analyzes __?’
There is, however, strong evidence that adjuncts and relative clauses are indeed strong islands, and that SI-crossing movement is never possible. The argument proceeds in two steps. First, I will present further data from the survey, demonstrating that the (un)acceptability of island-crossing wh-gap dependencies correlates with the (un)acceptability of island-crossing resumption-chains. I will then return to the reconstruction data, presented above.

Recall that the reconstruction-data reported above come from the speakers who accept SI-crossing resumption. In addition to accepting SI-crossing resumption, these speakers overwhelmingly accept SI-crossing wh-gap dependencies, as noted above. When we consider the judgements of those speakers who were excluded, a different picture emerges: speakers of BP and Hebrew accept SI-crossing wh-gap dependencies if and only if they accept SI-crossing resumption-chains. Put differently: the (un)acceptability of SI-crossing resumption and the (un)acceptability of SI-crossing wh-gap dependencies are inter-dependent variables.

(52) Chi-Squared Test, verifying the dependence of the following two variables:
ISLAND-CROSSING OVERT RESUMPTION:
{acceptable | unacceptable};
ISLAND-CROSSING WH-GAP DEPENDENCY:
{acceptable | unacceptable}

a. Brazilian Portuguese, Adjunct Islands:
\( \chi^2 = 19.1947 \) (p < 0.01)
b. Hebrew, Adjunct Islands:
\( \chi^2 = 21.9608 \) (p < 0.01)
c. Brazilian Portuguese, Relative Clause Islands:
\( \chi^2 = 12.1978 \) (p < 0.01)
d. Hebrew, Relative Clause Islands:
\( \chi^2 = 28.0615 \) (p < 0.01)

The inter-dependency of these two variables confirms that SI-crossing wh-gap dependencies may be generated with a covert RP in the position of the gap. Speakers who permit SI-crossing resumption-chains will therefore accept both types of SI-crossing chains: those which contain an overt RP and those which contain a gap. By contrast, speakers who do not permit SI-crossing resumption-chains will reject both types of chains.\(^{16}\) Clearly, this state of affairs would be unexpected if adjuncts and relative clauses were not SIs.

Theories which link the availability of SI-crossing movement to resumption (e.g., Boeckx, 2003) are better equipped to account for the correlation noted in (52). Nonetheless, such theories incorrectly predict that speakers who permit SI-crossing movement will permit SI-crossing reconstruction. As argued above, this prediction is not fulfilled. The standard view of SIs, on the other hand, predicts the correlation noted in (52), since, according to this view, SI-crossing chains must be base-generated and must therefore culminate in an RP. Speakers who accept SI-crossing resumption, will therefore accept both types of sentences: those in which the SI-crossing chain contains an overt RP and those in which the chain contains a gap (= a covert RP). By contrast, speakers who do not accept SI-crossing resumption will not accept either type of sentence. Moreover, the standard view of SIs predicts the absence of SI-crossing reconstruction.

Summarizing, the present section has argued, on the basis of reconstruction-data, that SI-crossing resumption-chains in BP and Hebrew are obligatorily base-generated, as expected under the standard view of SIs. The section has also argued that SI-crossing wh-

\(^{16}\)Note that nothing forces the presence of the RP. However, when it is not present, the wh-phrase will have to undergo SI-crossing movement, resulting in ungrammaticality.
gap chains contain a covert RP and that the dependency between the wh-phrase and this RP is obligatorily base-generated. The following section further explores the latter conclusion.

6.4 RECONSTRUCTION AND ISLAND-CROSSING GAP-CHAINS

The previous section examined one class of SI-crossing wh-gap chains: namely, those in which a wh-DP binds a direct object gap. On the basis of the data presented in (52), it was proposed that these chains contain a covert RP, which enables the wh-gap dependency to be base-generated, thus accounting for the acceptability of these chains. At this point, it is important to seek corroborating evidence in support of this conclusion; the present section presents such evidence, in the form of reconstruction data from BP.

Consider, first, the following data, which illustrate that the complex pronominal *si mesmo* must take a local, c-commanding DP as its antecedent.¹⁷

(53) a. [O pai do Joãô₂]₁ vendeu a foto de si₁/#₂ [the father of the João] sold the picture of *si mesmo.*
   EMPHATIC
   ‘[The father of Joãô₂]₁ sold the picture of himself₁/#₂.’

b. [O homem que falou com Joãô₂]₁ vendeu a foto de si₁/#₂ mesmo.
   picture of *si EMPHATIC
   ‘[The man who spoke with Joãô₂]₁ sold the picture of himself₁/#₂.’

(54) */?A campanha do Joãô₁ exige que as fotos de the campaign of the João requires that the pictures of *si mesmo sejam colocadas por toda a cidade.*
   *si EMPHATIC be placed about all the town
   ‘Joãô₁’s campaign requires that pictures of himself₁ be placed all over town.’

¹⁷The judgements on the sentences containing *si mesmo* were provided by two speakers. Their respective judgements on (54)-(56) differed, one assigning the sentences a ‘?’, the other, a ‘*’. The remaining judgements were identical.
(55) */?A foto de si mesmo na primeira página do the picture of SI EMPHATIC on the first page of the
Estado fez as reclamações do João parecerem Estado made the complaints of the João seem
meio ridículas. rather ridiculous
‘The picture of himself on the front page of the Estado made João’s complaints seem rather ridiculous.’

(56) */?O João estava furioso. A foto de si mesmo the João was furious: the picture of SI EMPHATIC
tinha sido destruída. had been destroyed
‘João was furious. The picture of himself had been de-
stroyed.’

(57) a. *O João falou que o Pedro publicou uma foto the João said that the Pedro published a picture
de si mesmo. of SI EMPHATIC
‘João said that Pedro published a picture of himself.’

b. *O João falou que o Estado publicou uma the João said that the Estado published a picture of
foto de si mesmo. SI EMPHATIC
‘João said that the Estado published a picture of himself.’

The data in (54)-(57) are particularly important, as they contrast with the following data, which Pollard and Sag (1992) use to argue that Picture-NP anaphors do not need to take a local, c-commanding antecedent. Since si mesmo consistently requires a local, c-commanding antecedent, even in contexts which seem conducive to the licens-
ing of non-local, non-c-commanding antecedents, I conclude that si mesmo must always take a local, c-commanding antecedent.

(58) John’s campaign requires that pictures of himself be placed all over town.

(Pollard and Sag, 1992, citing in Lebeaux, 1984)

(59) The picture of herself on the front page of the Times made Mary’s claim seem somewhat ridiculous.

(Pollard and Sag, 1992)

(60) John was furious. The picture of himself in the museum had been mutilated.

(Pollard and Sag, 1992)

(61) a. *Bill remembered that Tom saw a picture of himself in the post office.
b. Bill remembered that the *Times* had printed a picture of himself in the Sunday edition. (Pollard and Sag, 1992)

Consider, now, the examples in (62) and (63). The contrast between (62) and (63) illustrates that *si mesmo*’s c-command requirement can be licensed at LF, after the wh-phrase undergoes reconstruction, and that reconstruction is possible only when an SI does not intervene. ((64) illustrates that SI-crossing wh-gap chains are possible when reconstruction is not forced.)

(62) a. *Qual/que foto de si mesmo* (que) o qual/what picture of *si EMPHATIC (COMP)* the João vendeu ___ pra agência?
João sold ___ to.the agency
‘Which picture of himself did João sell ___ to the agency?’

b. *Qual/que foto de si mesmo* (que) você which/what picture of *si EMPHATIC (COMP)* you acha que o João vendeu ___ pra agência?
think that the João sold ___ to.the agency
‘Which picture of himself do you think that João sold ___ to the agency?’

(63) a. *Qual/que foto de si mesmo* (que) você which/what picture of *si EMPHATIC (COMP)* you vai sair antes que o João venda ___ pra agência?
will leave before that the João sell.SBJV ___ to.the agency
‘Which picture of himself will you leave before João sells ___ to the agency?’

b. *Qual/que foto de si mesmo* (que) você which/what picture of *si EMPHATIC (COMP)* you ficou bravo com o empresário que queria que became mad with the boss that wanted that o João vendesse ___ pra agência?
the João sell.SBJV.PST ___ to.the agency
‘Which picture of himself did you get mad at the boss who wanted João to sell ___ to the agency?’

---

18 For reasons that are not clear to me, one of the two speakers whose judge-ments are reported above rejected (i). For this speaker, it would seem that re-construction must target the base of the chain, a conclusion that merits further investigation.

(i) *Qual/que foto de si mesmo* (que) o João acha que which/what picture of *si EMPHATIC (COMP)* the João thinks that você vendeu ___ pra agência?
you sold ___ to.the agency
‘Which picture of himself does João think that you sold ___ to the agency?’
These data reproduce what was observed in the previous section; as with wh-chains containing an overt RP, wh-chains containing a gap permit reconstruction, but not into SIs. These data thus lend further support to the conclusion that SI-crossing wh-gap chains are obligatorily base-generated.

Further support for this conclusion comes from pair-list readings. Consider the following pattern of judgements. The sentences in (65) and (66) do not contain an SI; as expected, reconstruction can apply, yielding a pair-list reading. The sentences in (67), on the other hand, do contain an SI; given the data reported above, it is expected that these sentences will be grammatical, but not admit a pair-list reading. However, the sentences are ungrammatical. Evidently, the ungrammaticality of these sentences cannot be attributed to the presence of the island-crossing wh-chain; the sentences in (68) provide direct evidence against such a conclusion. Rather, it seems that the quantifier cada um dos professores, ‘each of the professors’, forces reconstruction, for some reason or another, and that when reconstruction cannot apply, ungrammaticality results. The judgements below thus provide a further example of

---

19 One of the two speakers did not fully accept (64-b), noting that it sounded better than (63-b) (which was totally unacceptable), but that it was still rather marginal.

20 These judgements are due to one of the two speakers whose judgements were reported, above. The second speaker does not permit a pair-list reading in sentences such as (66), meaning that his/her rejection of the pair-list reading in sentences containing an SI is uninformative.

21 Negrão (2002) argues that the quantifier cada NP, ‘each NP’, obligatorily pairs the members of the set denoted by the restrictor NP with the members of some other set contained within the quantifier’s scope. To the extent that the quantifiers cada um dos NP and cada NP behave alike, we can extend
the now-familiar pattern: wh-gap/RP chains permit reconstruction, but only when an SI does not intervene.

(65) (Single-Individual Reading, Pair-List Reading)

\begin{verbatim}
Qual poema que cada um dos professores vai analisar ___?
\end{verbatim}

‘Which poem will each of the professors analyze ___?’

(66) (Single-Individual Reading, Pair-List Reading)

a. \begin{verbatim}
Qual poema que a Maria disse que cada um dos professores vai analisar ___?
\end{verbatim}

‘Which poem did Maria say that each of the professors will analyze ___?’

b. \begin{verbatim}
Qual poema que cada um dos professores disse que a Maria vai analisar ___?
\end{verbatim}

‘Which poem did each of the professors say that Maria will analyze ___?’

(67) a. \begin{verbatim}
*Qual poema que você vai sair antes que cada um dos professores analise ___?
\end{verbatim}

‘Which poem will you leave before each of the professors analyzes ___?’

b. \begin{verbatim}
*Qual poema que você vai sair antes de cada um dos professores analisar ___?
\end{verbatim}

‘Which poem will you leave before each of the professors analyzes ___?’

Negrão’s conclusion to cada um dos professores and propose that the quantifier in (65) through (67) must pair members of the set of professors with members of the set of poems. This pairing will be possible only when the wh-phrase can reconstruct, hence the ungrammaticality of (67). As to the generation of the single-individual reading, this reading will be generated in those instances in which the wh-phrase’s restriction denotes a singleton (e.g., a set consisting of one poem, only); thus, the single-individual and the pair-list reading both involve reconstruction, and the difference between the two readings stems from the cardinality of the set denoted by wh-phrase’s restriction.

The proposal just sketched, whatever its merits, incorrectly predicts that (37-a) and (45-a) should be ungrammatical for all speakers of BP. However, some speakers accept these sentences, albeit only under a single-individual reading. It is thus not clear to me why the impossibility of reconstruction in (67) yields ungrammaticality.
(68) a. Qual poema que você vai sair antes que a professora analise ____?
professor_analyze

‘Which poem will you leave before the professor analyzes ____?’

b. Qual poema que você vai sair antes da professora analisar ____?
professor_analyze

‘Which poem will you leave before the professor analyzes ____?’

I now wish to report the results of a third speaker, for whom (67) is acceptable and, moreover, admits a pair-list reading. The availability of the pair-list reading indicates that it is necessary to test for reconstruction conflicts. Unfortunately, reconstruction conflicts do not arise for this speaker, even in sentences which do not contain an SI; hence, the absence of reconstruction conflicts in sentences which do contain an SI cannot be attributed to the presence of the SI. For this speaker, then, reconstruction conflicts cannot be used to determine whether SI-crossing chains are base-generated or movement-derived.

(All of the following sentences admit an interpretation in which coreference and the pair-list reading simultaneously obtain.)

(69) [Qual dos idiomas que a professora₁ sabe [which of the languages that the professor₁ knows falar] que cada um dos alunos pediu que to_speak] COMP each one of the students requested that ela₁ ensinasse ____ no semestre que vem? she₁ teach ____ in. the semester that comes

‘[Which of the languages that the professor₁ knows how to speak] did each of the students ask that she₁ teach ____ next semester?’

(70) [Qual dos idiomas que a professora₁ sabe [which of the languages that the professor₁ knows falar] que ela₁ pediu que cada um dos alunos to_speak] COMP she requested that each of the students estudasse ____ no semestre que vem? study ____ in. the semester that comes

‘[Which of the languages that the professor₁ knows how to speak] did she₁ ask that each of the students study ____ next semester?’
The absence of reconstruction conflicts in sentences which do not contain an island may suggest that CP-crossing wh-gap chains are always base-generated for this speaker—a rather surprising conclusion, but one which would not be without precedent.\footnote{See Schneider-Zioga (2009), who argues that movement in Kinande is clause-bounded.} Alternatively, the absence of reconstruction conflicts may be due to some independent property of the sentences above (i.e., there is a confound). Finally, it may be the case that some languages/dialects simply do not exhibit reconstruction conflicts. I will leave these questions to further research.

Summarizing, the reconstruction data presented here, where conclusive, support the conclusion that SI-crossing wh-gap chains (in BP) are obligatorily base-generated, hence, that they contain covert RPs.\footnote{Unfortunately, I could not produce supporting evidence from Hebrew, as the three speakers I consulted rejected SI-crossing wh-gap chains.}

Before concluding, I would like to present one further argument in support of the conclusion reached above—i.e., that the grammaticality of SI-crossing wh-gap dependencies depends upon the grammaticality of SI-crossing covert resumption. If this conclusion is correct, then SI-crossing wh-gap dependencies will be impossible
in those contexts in which SI-crossing covert resumption is, itself, impossible. Evidence in support of this conclusion was already presented in the previous section, where it was argued (on the basis of the correlation noted in (52)), that speakers who do not permit SI-crossing resumption (and hence, do not permit SI-crossing covert resumption) do not permit SI-crossing wh-gap dependencies. Additional evidence comes in the form of the following judgements. The judgements in (73) indicate that resumption-chains in BP are not permitted with non-D-linked wh-phrases, and that, as expected, non-D-linked wh-phrases cannot head SI-crossing wh-chains.  

\[ (73) \]  
\begin{align*}
\text{a. } & O \text{ que que você quer que a professora} \\
& \text{the what COMP you want that the professor} \\
& \text{analise } (*\text{ele})? \\
& \text{analyze.sbjv } (*\text{it}) \\
& \text{‘What do you want the professor to analyze ___/it?’} \\
\text{b. } & *O \text{ que que os alunos vão embora antes que a professora analise } (\text{ele})? \\
& \text{that the professor analyzes.sbjv } (\text{it}) \\
& \text{‘What will the students leave after the professor analyzes ___/it?’} \\
\end{align*}

By contrast, D-linked wh-phrases may head resumption-chains, and, as already noted, may also head SI-crossing wh-chains.

\[ (74) \]  
\begin{align*}
\text{Qual filme chato que os alunos vão embora antes que a professora analise } (\text{ele})? \\
& \text{which film annoying COMP the students will go out after that the professor analyzes.sbjv } (\text{it}) \\
& \text{‘Which annoying film will the students leave before the professor analyzes ___/it?’} \\
\end{align*}

These judgements further corroborate the conclusion that covert resumption underlies the acceptability of SI-crossing wh-gap chains. Indeed, this conclusion follows from the standard view of SIs, in which all SI-crossing chains must be base-generated, hence, must contain a (possibly covert) resumptive pronoun.  

\[ \text{24The following judgements were provided by two speakers.} \]
\[ \text{25The conclusion that BP permits covert resumption is not original to the present study. Ferreira (2000), Modesto (2000), and Grolla (2005) argue that BP permits covert resumptive pronouns, furthermore noting that the availability of covert resumption is sensitive to the properties of the A’-binder (e.g., whether it is D-linked), as well as to the RP’s position (covert RPs are acceptable in object-position, but not in subject-position). These studies do not, however, ask whether SI-crossing covert resumption permits reconstruction. The present study thus provides supporting evidence for these authors’ conclusion, in the form of reconstruction data.} \]
6.5 CONCLUSION

Under the standard view of SIs, licit instances of SI-crossing A'-chains are base-generated and will, therefore, never exhibit properties uniquely associated with movement-derived dependencies. Under the alternative view of SIs, SI-crossing A'-chains are sometimes movement-derived and, when so derived, will exhibit the unique properties of movement, all else being equal. The present study has argued that reconstruction conflicts are a unique property of movement-derived chains, and that, for BP and Hebrew, ‘simple’ (i.e., non-conflict generating) reconstruction constitutes a unique property of movement-chains, as well. The latter conclusion was based on the results of a survey, as well as on small-scale informant work, which indicated that BP and Hebrew permit reconstruction down resumption-chains, but only when an SI does not intervene. The island-insensitivity of base-generated chains, coupled with the observed island-sensitivity of reconstruction, jointly suggest that these two languages do not permit base-generated reconstruction—or, in other words, that reconstruction is, in these two languages, a unique property of movement-chains. This conclusion accepted, the island-sensitivity of reconstruction now emerges as evidence in support of the standard view of strong islandhood, under which the island-sensitivity of reconstruction is predicted, and against the alternative view, under which the island-sensitivity comes as a surprise.

The logic of the alternative view suggests two counter-arguments. First: SI-crossing movement is possible only under specific conditions; SI-crossing resumption-chains in BP and Hebrew do not satisfy these conditions; hence, SI-crossing movement, and with this, SI-crossing reconstruction, is impossible. Second: SI-crossing resumption-chains in BP and Hebrew satisfy the conditions enabling SI-crossing movement; accordingly, these chains are indeed movement-derived; however, there is an independent explanation for why Reconstruction is blocked.

In connection to the first counter-argument, I have already discussed the proposals of Ross (1967), Perlmutter (1972), and Boeckx (2003), noting that the present study’s results argue against these
authors’ proposals.\footnote{Of particular relevance to the assessment of Boeckx’s (2003) proposal are the data of speakers for whom resumption is non-intrusive.} As to the second counter-argument, Boeckx and Hornstein (2008), discussing the impossibility of island-crossing reconstruction in Lebanese Arabic, sketch two alternative accounts of why island-crossing reconstruction is not possible. The accounts cannot be maintained in their current form, though, as they rule out all instances of island-crossing reconstruction—an inappropriate result, given the availability of SI-crossing reconstruction in French and Jordanian Arabic (Guilliot and Malkawi, 2009, 2012). By contrast, the standard view of strong islandhood, coupled with the conclusion that base-generated chains allow reconstruction in some languages but not in others, accounts for the distribution of SI-crossing reconstruction observed in the current study.

Needless to say, a number of issues have been left unresolved—indeed, unaddressed. For instance, under what conditions is covert resumption licensed? The better these conditions are understood, the better we will be able to distinguish apparent cases of SI-crossing movement from true cases (if there are any). Why do languages differ with respect to the availability of base-generated reconstruction? And, of course, if the standard view of strong islandhood is correct, why are strong islands absolute barriers to movement?

6.6 POSTSCRIPT

In this postscript, I examine SI-crossing filler-gap dependencies in Norwegian and Swedish. I argue, on the basis of the reconstruction profile of these filler-gap dependencies, that these dependencies are not generated under movement. Rather, they are base-generated. The data presented in this postscript thus provide additional support for the conclusion that SIs are absolute barriers to movement.

I begin by establishing that both languages permit SI-crossing reconstruction. I do so by examining two types of reconstruction: reconstruction for Binding Theory Principle A (hereafter, binding reconstruction) and scope reconstruction. All the speakers consulted permit SI-crossing binding reconstruction and some of the speakers permit SI-crossing scope reconstruction. With this much in place, I argue that SI-crossing filler-gap dependencies do not exhibit recon-
struction conflicts, which supports the conclusion that SI-crossing filler-gap dependencies are not generated under movement.

More generally, the data collected in this postscript support the following claims: (i) Norwegian and Swedish have two mechanisms for generating filler-gap dependencies: movement and base-generation; (ii) both mechanisms give rise to reconstruction; (iii) only movement-derived chains give rise to reconstruction conflicts; (iv) only base-generated chains may cross SIs.

6.6.1 SI-crossing Reconstruction

Before considering the question of whether Norwegian and Swedish permit SI-crossing binding reconstruction, consider the examples in (75)-(80). The purpose of these examples is to demonstrate that the possessive pronouns sine and sina require a local, c-commanding antecedent. The (b)-sentences contain the pronoun hans, which must be locally free. These sentences have been included so as to provide a comparison with the behavior of sine and sina.

(75) Norwegian
   a. Leif
      kunne ikke holde ut guttene sine\textsubscript{i/j}.
      Leif could NEG hold out boys his
   b. Leif
      kunne ikke holde ut guttene hans\textsubscript{i/j}.
      Leif could NEG hold out boys his
      ‘Leif couldn’t stand his boys.’

(76) Swedish
   a. Leif
      tålde inte sine\textsubscript{i/j} pojkar.
      Leif tolerate NEG his boys
   b. Leif
      tålde inte hans\textsubscript{i/j} pojkar.
      Leif tolerate NEG his boys
      ‘Leif couldn’t tolerate his boys.’

(77) Norwegian
   a. Lars
      sa at Leif
      ikke kunne holde ut guttene
      Lars said that Leif NEG could hold out boys
      sine\textsubscript{i/j}.
      his
   b. Lars
      sa at Leif
      ikke kunne holde ut guttene
      Lars said that Leif NEG could hold out boys
      hans\textsubscript{i/j}.
      his
      ‘Lars said that Leif couldn’t stand his boys.’
(78) Swedish
   a. Lars\textsubscript{i} sa att Leif\textsubscript{j} inte tålde sina\textsubscript{i/j} pojkar.
      Lars said that Leif \textbf{NEG} tolerate his \textbf{boys}
   b. Lars\textsubscript{i} sa att Leif\textsubscript{j} inte tålde hans\textsubscript{i/j} pojkar.
      Lars said that Leif \textbf{NEG} tolerate his \textbf{boys}

   ‘Lars said that Leif couldn’t tolerate his boys.’

(79) Norwegian
   a. [Einar\textsubscript{i} sin venn\textsubscript{j}] kunne ikke holde ut guttene
      Einar \textbf{POSS} friend \textbf{NEG} hold \textbf{out} \textbf{boys}
      sine\textsubscript{i/j}.
      his
   b. [Einar\textsubscript{i} sin venn\textsubscript{j}] kunne ikke holde ut guttene
      Einar \textbf{POSS} friend \textbf{NEG} hold \textbf{out} \textbf{boys}
      hans\textsubscript{i/j}.
      his

   ‘Einar’s friend couldn’t stand his boys.’

(80) Swedish
   a. [Svens\textsubscript{i} vän\textsubscript{j}] tålde inte sina\textsubscript{i/j} pojkar.
      Sven’s \textbf{friend} tolerate \textbf{NEG} his \textbf{boys}
   b. [Svens\textsubscript{i} vän\textsubscript{j}] tålde inte hans\textsubscript{i/j} pojkar.
      Sven’s \textbf{friend} tolerate \textbf{NEG} his \textbf{boys}

   ‘Svens friend could not tolerate his boys.’

The sentences in (81)-(84) provide further support for the conclusion that \textit{sine} and \textit{sina} require a local, c-commanding antecedent. They do so by demonstrating that these pronouns cannot take a non-c-commanding, non-local antecedent, even when the antecedent is the sentence’s logophoric center. Thus, these pronouns are not logophors, but rather genuine anaphors, requiring a local, c-commanding antecedent.\textsuperscript{27}

(81) Norwegian
   a. *[Leif\textsubscript{i} sin kampanje\textsubscript{j}] krever at bildene sine\textsubscript{i}
      Leif \textbf{POSS} campaign requires that pictures his
      plasseres over hele byen.
      placed over \textbf{all} \textbf{city}
   b. [Leif\textsubscript{i} sin kampanje\textsubscript{j}] krever at bildene hans\textsubscript{i}
      Leif \textbf{POSS} campaign requires that pictures his
      plasseres over hele byen.
      placed over \textbf{all} \textbf{city}

\textsuperscript{27}Note that \textit{sine} and \textit{sina} agree in number with the possessum. When the possessum is plural, the pronoun’s form is \textit{sine} and \textit{sina}. When the possessum is singular (as it is in (83-a) and (84-a)), the pronoun’s form is \textit{sitt} (in Norwegian) and \textit{sin} (in Swedish). Note, also, with respect to (83-a), that one of the two speakers consulted did not completely reject this sentence. The sentence was however worse than the analogous sentence in (83-b), in which the anaphor is replaced with \textit{hans}. 
‘Leif’s campaign requires that his pictures be placed all over town.’

(82) Swedish
a. [Leif\textsubscript{s} kampagn\textsubscript{j}] kraver att sina\textsubscript{i} bilder blir Leif’s campaign requires that his pictures be placerade over hela staden.
placed over all town
b. [Leif\textsubscript{s} kampagn\textsubscript{j}] kraver att hans\textsubscript{i} bilder blir Leif’s campaign requires that his pictures be placerade over hela staden.
placed over all town
‘Leif’s campaign requires that his pictures be placed all over town.’

(83) Norwegian
a. *?Bildet sitt\textsubscript{i} på forsiden av Aftenposten fikk Leif\textsubscript{i} picture his on front of Aftenposten made Leif sine klager til å virke heller latterlige.
FOSS complaints seem rather ridiculous
b. Bildet hans\textsubscript{i} på forsiden av Aftenposten fikk Leif\textsubscript{i} picture his on front of Aftenposten made Leif sine klager til å virke heller latterlige.
FOSS complaints seem rather ridiculous
‘His picture on the front of the Aftenposten made Leif’s complaints seem rather ridiculous.’

(84) Swedish
a. *Sinn\textsubscript{i} bild på forstasidan av aftenbladet fick Leifs\textsubscript{i} his picture on front of aftenbladet made Leif’s klagomål att verka ganska lojliga.
complaint to seem quite ridiculous
b. Hans\textsubscript{i} bild på forstasidan av aftenbladet fick his picture on front of aftenbladet made Leifs\textsubscript{i} klagomål att verka ganska lojliga.
Leif’s complaint to seem quite ridiculous
‘His picture on the front of the Aftenbladet made Leif’s complaint seem quite ridiculous.’

With this much in place, consider the following examples. The acceptability of the sentences in (85-b) and (86-b) indicates that the filler (i.e., *jentene sine/sina flickor*) is able to reconstruct long-distance when an SI is not present. The acceptability of the sentence in (87-b) and (88-b) indicates that the filler is able to reconstruct into an SI. Thus, Norwegian and Swedish permit SI-crossing binding reconstruction.

(85) Norwegian
a. En historiker sa att kung Ulrik ikke kunne holde ut guttene sina i. "A historian said that King Ulrik couldn’t stand his boys."

b. Nej, du tar fel. Jentene sina sa att kongen ikke kunne holde ut med sina pojkar. "No, you’re wrong. The king couldn’t stand his boys."

---

(86) Swedish

a. Det var en gång en historiker som sa att kung Ulrik inte kunde stå med sina pojkar. "There once was a historian that said that King Ulrik couldn’t stand with his boys."

b. Nei, det är fel. Sina flickor sa att kungen inte kunde stå med. "No, that’s wrong. His girls, there once was a historian that said that the king couldn’t stand."
'There was a historian that once said that King Ulrik couldn’t stand his boys.'

b. Nej, det är fel. Sina flickor fanns det en gång no, it is wrong, his girls was there once [en historiker som sa att kungen inte kunde a historian that said that king DEF NEG could stå ut med ____].

stand out with

‘No, that’s wrong. His girls, there once was a historian that said that the king couldn’t stand.’

Consider, now, the following examples, which test whether Norwegian allows SI-crossing scope reconstruction. The examples in (89) and (90) are controls; they establish whether scope reconstruction is possible when an SI is not present. The example in (91-b) tests for SI-crossing scope reconstruction.

Of the two speakers consulted, one permitted scope reconstruction in each of the (b)-sentences, below. That is, each of the (b)-sentences allows a reading in which the indefinite et dikt ‘a poem’ is interpreted within the scope of the universal hver nordmann ‘each Norwegian’. The second speaker permitted scope reconstruction in (89-b), but not in (90-b) or (91-b). Thus, this speaker allows clause-internal scope reconstruction, but does not allow scope reconstruction into an embedded clause or scope reconstruction into an island.28

(89) Norwegian

a. Hver nordmann må memorisere en salme.
each Norwegian must memorize a psalm
‘Each Norwegian must memorize a psalm.’

b. Nei, du tar feil. Men, et dikt må hver no you’re wrong. however, a poem must each nordmann memorisere ____.
Norwegian memorize ____
‘No, you’re wrong. However a poem, each Norwegian must memorize.’

(90) Norwegian

a. Det var en gång en konge som sa at hver there was once a king that said that each nordmann måtte memorisere en salme.
Norwegian must memorize a psalm
‘There was once a king that said that each Norwegian must memorize a psalm.’

28Note that this second speaker does accept binding reconstruction in (85-b) and (87-b), above.
b. Nei, du tar feil. Men, et dikt sa en konge
no, you're wrong. however, a poem said a king
en gang at hver nordman må memorisere __.
once that each Norwegian must memorize ___
‘No, you're wrong. However a poem, a king once was
that each Norwegian must memorize.’

(91) Norwegian

a. Det var en gang en konge som sa at hver
there was once a king that said that each
nordmann måtte memorisere en salme.
Norwegian must memorize a psalm
‘There once was a king that said that each Norwegian
must memorize a psalm’

b. Nei, du tar feil. Men, et dikt var det
no, you’re wrong. however, a poem was there
en gang [en konge som sa at hver nordman
once a king that said that each Norwegian
måtte memorisere ___].
must memorize ___
‘No, you’re wrong. However a poem, there once was a
king that said that each Norwegian must memorize.’

As for Swedish, one of the two speakers consulted allows scope
reconstruction in all three contexts. The second speaker allows
scope reconstruction in (92-b) and (93-b), but not in (94-b). Thus,
this speaker allows scope reconstruction, but not into SIs.

29This speaker judged (94). As for (92) and (93), the speaker did not judge
these examples, but rather the following two examples, accepting scope recon-
struction on both.

(i) Swedish

a. Varje student måste läsa en bok för gruppen.
each student must read a book to group.DEF
‘Each student must read a book to the group.’

b. Nej, det är fel. En dikt måste varje student läsa för
no, it is wrong, a poem must each student read to
gruppen ___.
group.DEF ___
‘No, that’s wrong. A poem, each student must read to the group.’

(ii) Swedish

a. En av professorerna sa att varje student måste läsa en bok
one of professors.DEF said that each student must read a book
för gruppen.
to group.DEF
‘One of the professors said that each student must read a book to
the group.’

b. Nej, det är fel. En dikt sa en av professorerna att
no, it is wrong, a poem said one of professors.DEF that
varje student måste läsa för gruppen ___.
each student must read to group.DEF ___
‘No, that’s wrong. A poem, one of the professors said that each
student must read to the group.’

30Note that this speaker accepts SI-crossing binding reconstruction.
(92) Swedish
   a. Varje Svensk måste memorera en psalm.
      Each Swede must memorize a psalm
      ‘Each Swede must memorize a psalm.’
   b. Nej, du har fel. En hymn däremot måste varje
      No you’re wrong. A hymn however must each
      Svensk memorera __.
      ‘No, you’re wrong. However, a hymn each Swede must
      memorize.’

(93) Swedish
   a. Det fanns en gång i tiden en kung som sa att
      there was once in time a king that said that
      varje svensk måste memorera en psalm.
      each Swede must memorize a psalm
      ‘Once upon a time there was a king that said that each
      Swede must memorize a psalm.’
   b. Nej, det är fel. En hymn däremot sa en kung
      no, it is wrong. A hymn however said a king
      en gång i tiden att varje svensk måste memorera
      once in time that each Swede must memorize
      __.
      ___
      ‘No, that’s wrong. However, a poem a king once said
      that each Swede must memorize.’

(94) Swedish
   a. Det fanns en gång i tiden en kung som sa att
      there was once in time a king that said that
      varje svensk måste memorera en psalm.
      each Swede must memorize a psalm
      ‘A king once said that each Swede must memorize a
      psalm.’
   b. Nej, det är fel. En hymn däremot fanns det
      No, that’s wrong. A hymn however was there
      en gång i tiden [en kung som sa att varje svensk
      once in time a king that said that each Swede
      måste memorera __].
      must memorize ___
      ‘No, that’s wrong. However, a hymn there once was a
      king that said that each Swede must memorize.’

In summary, Norwegian and Swedish both permit SI-crossing
binding reconstruction. Some speakers additionally permit SI-crossing
scope reconstruction.
6.6.2 Reconstruction Conflicts

I now test whether filler-gap dependencies in Norwegian and Swedish exhibit reconstruction conflicts, beginning with Norwegian.\(^{31,32}\)

The sentence in (95) and (96) involve a filler-gap dependency that does not cross an SI. In (95), \textit{hver gutt} c-commands the pronoun \textit{hennene}. This sentence permits a reading in which both of the following obtain: \textit{han} is bound by \textit{hver gutt}; \textit{Anna} and \textit{hennene} co-refer. In (96), by contrast, \textit{hver gutt} is c-commanded by the pronoun (which, in this sentence, is \textit{hun}, not \textit{hennene}). This sentence does not permit a reading in which bound variable anaphora and co-reference both obtain.\(^{33}\)

(95) Norwegian
\begin{enumerate}
\item \textit{[Påstanden om at han elsker Anna]_{i} ba hver gutt hennene om å ignorerer __.} \\
\begin{tabular}{l}
\text{boy her about to ignore __} \\
\end{tabular}
\begin{tabular}{l}
\text{‘The claim that he loves Anna, each boy asked her to ignore.’} \\
\end{tabular}
\item \textit{= For each boy, x, x asked Anna to ignore the claim that x loves Anna.}\end{enumerate}

(96) Norwegian
\begin{enumerate}
\item \textit{[Påstanden om at han elsker Anna]_{i} ba hun hver gutt om å avvise __.} \\
\begin{tabular}{l}
\text{each boy about to reject __} \\
\end{tabular}
\begin{tabular}{l}
\text{‘The claim that he loves Anna, she asked each boy to reject.’} \\
\end{tabular}
\item \textit{≠ For each boy, x, Anna asked x to reject the claim that x loves Anna.}\end{enumerate}

Thus, the availability of a reading in which both binding and co-reference obtain is sensitive to the relative positioning of the quantifier \textit{hver gutt} and the pronoun \textit{hennene/hun}. When the quantifier c-commands the pronoun, such a reading is possible. When the pronoun c-commands the quantifier, such a reading is impossible.

\(^{31}\)An explanation of the concept of reconstruction conflicts can be found in section 6.2.1. It should be recalled here that movement-derived chains give rise to reconstruction conflicts and that base-generated chains do not.\(^{32}\)The following judgements are due to one of the two Norwegian speakers whose judgements are reported above. This speaker accepts SI-crossing scope reconstruction, as well as SI-crossing binding reconstruction.\(^{33}\)Specifically, it permits binding, but not co-reference.
For reasons elaborated upon earlier in the chapter, this pattern of judgements indicates that the filler-gap dependencies in the sentences above are generated under movement. In both sentences, the filler moves to its surface position, successive-cyclically. In (95), but not in (96), there is a reconstruction site that, on the one hand, is within the quantifier’s scope and that, on the other hand, c-commands the pronoun with which Anna is co-indexed. Hence, only in (95) is it possible to obtain a reading in which both binding and co-reference obtain.

By contrast, if the filler-gap dependencies in these examples could be base-generated, the availability of a reading in which both binding and co-reference obtain would be insensitive to the relative positioning of the quantifier and the pronoun. In particular, either such a reading would be possible in both of the sentences above, or it would be impossible in both sentences.\(^\text{34}\)

Before continuing, consider the sentence in (97-a). This sentence is identical to (96), except that the quantifier hver gutt has been replaced with Leif. This being so, if the Principle C effect in (96) is indeed due reconstruction (which places Anna within the c-command domain of the co-indexed hun), (97-a) should not produce a Principle C effect. After all, reconstruction is not forced in (97-a).

Co-reference between Anna and hun is indeed possible in (97-a), though it is somewhat marked. (Compare (97-a) with (97-b), in which co-reference between Anna and henne is completely unproblematic.) There is nonetheless a clear difference between (97-a), in which co-reference is marked but possible, and (96), in which co-reference is not possible. Thus, the Principle C effect in (96) is indeed due to reconstruction.

(97) Norwegian

\begin{itemize}
  \item [a.] [Påstanden om at han elsker Anna] ba hun \text{claim.DEF about that he loves Anna asked she}
  Leif om å avvise ___.
  Leif about to reject ___
\end{itemize}

\(^{34}\text{Recall the discussion of base-generated chains in English, French, and Welsh in section 6.2.1. In English and French, reconstruction down base-generated chains permits readings in which both binding and Principle C-obviating co-reference obtain, independent of the relative positioning of the quantifier and the pronoun (see (9) and (13)). In Welsh, reconstruction down base-generated chains does not allow such a reading, independent of the relative positioning of the quantifier and the pronoun (see (14)).} \)
‘The claim that he\textsubscript{j} loves Anna\textsubscript{k}, she\textsubscript{k} asked Leif\textsubscript{j} to reject.’

b. [Påstanden om at han elsker Anna\textsubscript{j}]\textsubscript{i} ba Leif claim.DEF about that he\textsubscript{ }loves Anna asked Leif henne om å ignorere ___\textsubscript{i}.
her about to ignore ___

‘The claim that he\textsubscript{j} loves Anna\textsubscript{k}, Leif\textsubscript{j} asked her\textsubscript{k} to ignore.’

Summarizing, in (95) and (96), the availability of a reading containing both binding and co-reference is sensitive to the relative positioning of the quantifier and the pronoun \textit{hun/henne}. Based on this observation, it can be concluded that the filler-gap dependencies in these sentences are generated under movement.

Consider, next, the following sentences. These sentences provide further support for the conclusion that non-SI-crossing filler-gap dependencies in Norwegian are generated under movement. Once again, a reading in which both binding and co-reference obtain is sensitive to the relative positioning of the quantifier and the pronoun.

In (98), the quantifier c-commands the pronoun \textit{henne}. This sentence permits a reading in which both binding and co-reference obtain.\textsuperscript{35} In (99), the pronoun \textit{hun} c-commands the quantifier, and such a reading is not possible.\textsuperscript{36}

(98) Norwegian

a. [Påstanden om at han elsker Anna\textsubscript{j}]\textsubscript{i} vil en claim.DEF about that he\textsubscript{ }loves Anna wants a lærer at hver gutt skal be henne om å teacher that each boy will ask her about to ignorere ___\textsubscript{i}.
ignore ___

‘The claim that he loves Anna, a teacher wants each boy to ask her to ignore.’

b. = A teacher wants it to be the case that for each boy, x, x asks Anna to ignore the claim that x loves Anna.

(99) Norwegian

\textsuperscript{35}It should be noted, though, that there is preference to interpret \textit{han} as referring to the teacher.

\textsuperscript{36}Specifically, (99) permits Anna and \textit{hun} to co-refer, but it does not permit the quantifier to bind \textit{han}. 
a. [Påstanden om at han elsker Anna] vil en claim.DEF about that he loves Anna wants a lærer at hun skal be hver gutt om å avvise teacher that she will ask each boy about to reject ___i.

'The claim that he loves Anna, a teacher wants her to ask each boy to reject.'

b. ≠ A teacher wants it to be the case that for each boy, x, Anna asks x to reject the claim that x loves Anna.

Finally, consider the sentences in (100) and (101), which involve an SI-crossing filler-gap dependency. Both sentences permit a reading in which binding and co-reference obtain. Thus, when the filler-gap dependency crosses an SI, the relative positioning of the quantifier and the pronoun is no longer relevant; or, to put the observation differently: when the dependency crosses an SI, a reconstruction conflict does not obtain. Hence, SI-crossing filler-gap dependencies are base-generated, and not generated under movement.37

(100) Norwegian

a. [Påstanden om at han elsker Anna] er det [en claim.DEF about that he loves Anna is there a lærer som vil at hver gutt skal be henne teacher that wants that each boy will ask her om å ignorere ___i].

about to ignore ___

'The claim that he loves Anna, there is a teacher that wants each boy to ask her to ignore.'

b. There are teachers that want it to be the case that for each boy, x, x asks Anna to ignore the claim that x loves Anna.

37It should be noted that the speaker’s first reaction to (100) was to construe henne as referring to the teacher; under this construal, it is easy to construe han as bound by hver gutt. A second reading that is possible is one in which henne and Anna co-refer and han refers to the teacher. The judgement reported in the text seems to be possible, but quite marked. Indeed, the speaker indicated that the judgement in (100) was quite difficult and that s/he was not certain about his/her judgement on this particular sentence. By contrast, the speaker did not express any difficulty with regard to the judgement in (101), where the judgement was provided without any reservation.

Finally, the sentence in (i) was judged, as well. This sentence is identical to (100), except that an lærer ‘a teacher’ is replaced with lærere ‘teachers’. This replacement made the judgement somewhat easier (though the sentence was still somewhat hard to interpret). As with (100)—but here, more clearly—a reading in which binding and co-reference both obtain is possible.

(i) Norwegian

a. [Påstanden om at han elsker Anna] er det [lærere som claim.DEF about that he loves Anna are there teachers that vil at hver gutt skal be henne om å ignorere ___i].

want that each boy will ask her about to ignore ___

'The claim that he loves Anna, there are teachers that want each boy to ask her to ignore.'

b. There are teachers that want it to be the case that for each boy, x, x asks Anna to ignore the claim that x loves Anna.
b. ??= There is a teacher that wants it to be the case that for each boy, x, x asks Anna to ignore the claim that x loves Anna.

(101) Norwegian
a. [Påstanden om at han elsker Anna], er det [en claim.DEF about that he loves Anna] is there a lærer som vil at hun skal be hver gutt teacher that wants that she will ask each boy om å avvise ___].
about to reject __
'The claim that he loves Anna, there is a teacher that wants her to ask each boy to reject.'
b. = There is a teacher that wants it to be the case that for each boy, x, Anna asks x to reject the claim that x loves Anna.

In summary, this particular speaker of Norwegian exhibits the following reconstruction pattern.

(102) a. Filler-gap dependencies that do not cross an SI:
(i) permit binding and scope reconstruction;
(ii) exhibit reconstruction conflicts.

b. Filler-gap dependencies that do cross an SI:
(i) permit binding and scope reconstruction;
(ii) do not exhibit reconstruction conflicts.

This pattern supports the following array of conclusions.

First, recall from the outset of the chapter that reconstruction conflicts diagnose movement: only movement-based chains give rise to reconstruction conflicts. Hence, it can be concluded that this speaker can generate non-SI-crossing filler-gap dependencies under movement.

Second, when an SI is inserted, reconstruction conflicts disappear. From this it can be concluded that SI-crossing filler-gap dependencies cannot be generated under movement. They must be base-generated, hence the disappearance of reconstruction conflicts.

Third, this speaker allows reconstruction down base-generated chains. This accounts for the possibility of SI-crossing reconstruction.

Fourth, and finally, if non-SI-crossing filler-gap dependencies could be base-generated, such dependencies would not exhibit reconstruction conflicts. After all, base-generated chains do not produce reconstruction conflicts. Thus, for this speaker, movement blocks base-
generation (i.e., when a chain can be generated under movement, it must be so generated).\textsuperscript{38}

What is most relevant for present purposes is the observation that SI-crossing filler-gap dependencies do not exhibit reconstruction conflicts. This observation lends direct support to the position that SIs constitute absolute barriers to movement. Specifically: if SIs are absolute barriers to movement, SI-crossing filler-gap dependencies are not generated under movement. SI-crossing dependencies will, therefore, not exhibit reconstruction conflicts.

On the other hand, if SI-crossing movement in Norwegian could be generated under movement, the absence of reconstruction conflicts down SI-crossing chains would come as a surprise.

Consider, next, the following data from Swedish.\textsuperscript{39} Both of the following sentences permit a reading in which both binding and co-reference obtain. Thus, this speaker permits base-generation of non-SI-crossing filler-gap dependencies.

(103) Swedish
   a. [Påståendet att han älskar Anna] bad var och och one av en pojkarna def her__
      en av pojkarna def her__
      'The claim that he loves Anna, each boy asked her to ignore.'
   b. For each boy, x, x asked Anna to ignore the claim that x loves Anna.

(104) Swedish
   a. [Påståendet att han älskar Anna] bad hon och one av pojkarna def she each
      and one of boys. Def reject__
      'The claim that he loves Anna, she asked each boy to reject.'

\textsuperscript{38}In this connection, see Aoun, Choueiri, and Hornstein (2001), in which the authors conclude that resumption chains in Lebanese Arabic can be generated under movement or through base-generation; crucially, the base-generation option is possible only when the movement option is not.

With regard to the Norwegian judgements, it is interesting to note that the constraint that favors movement over base-generation is blind to meaning (or to some types of meaning, at least). In particular, when an SI is absent, the base-generation option cannot be selected, even though this option would produce a reading that the movement-based option would not produce. The base-generation option can only be selected when the movement-based option is grammatically excluded.

\textsuperscript{39}The Swedish data are due to one of the two Swedish speakers consulted above: namely, the one who accepts SI-crossing scope reconstruction in addition to SI-crossing binding reconstruction.
b. For each boy, \( x \), Anna asked \( x \) to reject the claim that \( x \) loves Anna.

Consider, next, the following pair of sentences, which lends further support to the conclusion just reached. The sentence in (105-a) does not permit a reading in which \( \text{han} \) is bound by the quantifier and \( \text{Anna} \) and \( \text{henne} \) co-refer. Although \( \text{Anna} \) and \( \text{henne} \) can co-refer, \( \text{han} \) must refer to the teacher. Note, however, that the relevant reading becomes possible (though still somewhat difficult) in (105-c), in which \( \text{en lärare} \) ‘a teacher’ has been replaced with \( \text{lärarna} \) ‘the teachers’. What is, however, most relevant to present concerns is the judgement in (106-a). In this sentence, a reading in which both binding and co-reference obtains is possible, despite the fact that the pronoun \( \text{hon c-commands the quantifier. Thus, (106-a) provides further support to the conclusion that this speaker permits the base-generation of non-SI-crossing filler-gap dependencies.}

(105) Swedish

a. [Påståendet att \( \text{han älskar Anna} \)] vill en lärare claim.DEF that he loves Anna wants a teacher att var och en av pojkarna ska be henne that each and one of boys.DEF will ask her ignorera ____i. ignore ____

‘The claim that he loves Anna, a teacher wants each boy to ask her to ignore.’

b. \( \neq \) A teacher wants it to be the case that for each boy, \( x \), \( x \) asks Anna to ignore the claim that \( x \) loves Anna.

c. [Påståendet att \( \text{han älskar Anna} \)] vill claim.DEF that he loves Anna lärarna teachers.DEF that each and one of boys.DEF will ask henne ignorera ____i. her ignore ____

‘The claim that he loves Anna, the teachers want each boy to ask her to ignore.’

d. \( = \) The teachers wants it to be the case that for each boy, \( x \), \( x \) asks Anna to ignore the claim that \( x \) loves Anna.

(106) Swedish

a. [Påståendet att \( \text{han älskar Anna} \)] vill en lärare claim.DEF that he loves Anna wants att hon ska be var och en av pojkarna förkasta that she will ask each and one of boys.DEF reject ____i.
‘The claim that he loves Anna, a teacher wants her to ask each boy to reject.’

b. A teacher wants it to be the case that for each boy, x, Anna asks x to reject the claim that x loves Anna.

The following sentences contain an SI-crossing filler-gap dependency. These sentences pattern with the preceding sentences. That is, a reading in which both binding and co-reference obtains is possible, irrespective of the relative positioning of the quantifier and the pronoun.40

(107) Swedish

a. [Påståendet att han älskar Anna]i finns det [en lärare som vill att var och en av pojkarna teacher that wants that each and one of boys ska be henne ignorera __i].
will ask her innocent __
‘The claim that he loves Anna, there is a teacher that wants each boy to ask her to ignore.’

b. There is a teacher that wants it to be the case that for each boy, x, x asks Anna to ignore the claim that x loves Anna.

(108) Swedish

a. [Påståendet att han älskar Anna]i finns det [en lärare som vill att hon ber var och en av teacher that wants that she ask each and one of pojkarna att förkasta __i].
boys to reject __
‘The claim that he loves Anna, there is a teacher that wants her to ask each boy to reject.’

b. There is a teacher that wants it to be the case that for each boy, x, Anna asks x to reject the claim that x loves Anna.

In summary, this speaker of Swedish exhibits the following pattern of reconstruction.

(109) a. Filler-gap dependencies that do not cross an SI:
(i) permit binding and scope reconstruction;
(ii) do not exhibit reconstruction conflicts.

b. Filler-gap dependencies that do cross an SI:
(i) permit binding and scope reconstruction;
(ii) do not exhibit reconstruction conflicts.

40The relevant reading is easier in (108) than in (107). In (107), there is once again a preference to construe han as referring to the teacher.
This speaker can therefore base-generate filler-gap dependencies, not only when an SI is present but also when an SI is not present. There is no evidence that this speaker allows movement to take place across SIs.

In closing, this postscript has examined the reconstruction profile of filler-gap dependencies in Norwegian and Swedish. Each of the speakers consulted exhibits a distinct profile. However, each speaker’s profile nonetheless supports the conclusion that SI-crossing filler-gap dependencies in Norwegian and Swedish are not generated under movement. This conclusion, in turn, lends support to the conclusion argued for in the body of this chapter: that SIs are absolute barriers to movement.


