

ARGUMENT ELLIPSIS
and
STRONG ISLANDS

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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

ABSTRACT

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.

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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]_i Mary-no uchi-ni kita.
 b. *pro*_i John-no uchi-ni-mo kita.
 c. [~~seerusuman-ga~~] John-no uchi-ni-mo kita.
- (4) a. Hanako-ga [taitei-no sensei-o]_i sonkeisiteiru.
 b. Taroo-mo *pro*_i 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.

- (8) a. (...) V S_U (...)

b. *(...) S_U V (...)

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.

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 $\langle e,t \rangle$, only. In the fourth chapter, it will be shown that expressions of type $\langle et,t \rangle$ 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-

gument 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. ... $F_{1\{\phi\}}$... $DP_{1\{\phi, \text{Case}\}}$...
- b. ... $F_{1\{\phi\}}$... $DP_{1\{\phi, \text{Case}\}}$...
- (2) Elliptical sentence
- a. ... $F_{2\{\phi\}}$... ____ ...
- b. ... $F_{2\{\phi\}}$... $DP_{1\{\phi, \text{Case}\}}$...

The ϕ -features on F_1 probe and agree with DP_1 , resulting in the deletion of F_1 's uninterpretable ϕ -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 ϕ -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 ϕ -features on v_1 probe and agree with 'his friend', deleting v_1 's ϕ -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 ϕ -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 ϕ -feature agreement: in languages without argument ellipsis, these functional heads bear ϕ -features; in languages with argument ellipsis, some or all of these functional heads do not bear ϕ -features.

With this in mind, consider the following.

- (4) Antecedent sentence
- a. ... F_1 ... $DP_{1\{\phi, \text{Case}\}}$...
- b. ... F_1 ... $DP_{1\{\phi, \text{Case}\}}$...
- (5) Elliptical sentence

- a. ...F₂ ... ___ ...
 b. ...F₂ ... DP₁{ ϕ , Case} ...

Beginning with (4), note that the functional head lacks ϕ -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 F₂ does not bear ϕ -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-TOP self-GEN friend-ACC brought
 'Taroo brought his friend.'
 b. Demo Hanako-wa ___ turete konokatta
 but Hanako-TOP ___ brought not
 'But Hanako did not bring her friend.' (Saito, 2007)

Assume that *v* in Japanese does not bear ϕ -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 ϕ -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 θ -marked by the verb.

¹Alternatively, 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 ϕ -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 ϕ -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-

²For 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 is 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 ϕ -feature agreement (e.g., PPs, adjuncts, secondary predicates). Since these expressions do not function as goals for ϕ -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 ϕ -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 ϕ -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 ϕ -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 ϕ -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.³ 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. ... $S_1\{\text{Number, Gender}\}$... [duas picanhas] $\{\phi, \text{Case}\}$...
 b. ... $S_1\{\text{Number, Gender}\}$... [duas picanhas] $\{\phi, \text{Case}\}$...
 (From (10-a), via Agree(S_1 , duas picanhas))
- (11) Elliptical Conjunct
- a. ... $S_2\{\text{Number, Gender}\}$... ___ ...
 b. ... $S_2\{\text{Number, Gender}\}$... [duas picanhas] $\{\phi, \text{Case}\}$...
 (From (11-a), via LF-copy(duas picanhas))
 c. ... $S_2\{\text{Number, Gender}\}$... [duas picanhas] $\{\phi, \text{Case}\}$...
 (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 ϕ -features, or, at the least, that it has the option of not bearing ϕ -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) ... $S_{2\{\text{Number, Gender}\}}$... [duas picanhas] $_{\{\phi, \text{Case}\}}$...

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 ϕ -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 ϕ -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 ϕ -features and, hence, does probe the DP; the functional head's ϕ -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 ϕ -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 ϕ -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-

stract 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 arguments. 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 [_{vP} t_{DP} [_{v'} *v* [_{VP} saw [two students]]]]
 b. Bill also [_{vP} t_{DP} [_{v'} *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} t_{DP} [_{v'} v [_{VP} saw [two students]]]]
 b. Bill also [_{vP} t_{DP} [_{v'} 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-TOP self-GEN child-NOM English-ACC speak
 to] itta
 that said
 ‘Taroo said that his child spoke English.’
 b. Hanako-wa [___ furansugo-o hanasu to] itta
 Hanako-TOP ___ French-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_i [[zibun-no kodomo-ga]_i 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

- (17) [~~zibun-no kodomo-ga~~]_i [Hanako-wa [ec_i furansugo-o hanasu to] itta]

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.⁶

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.

- (18) [VP V ~~argument~~]

- (19) [XP ~~argument~~ [_{X'} X YP]]

- (20) [VP V [XP ... ~~argument~~ ...]]

- (21) 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.

⁶For discussion of why DP-languages select *v* as the phasal head and of why NP-languages select V, see Cheng (2013, pp. 207-215).

- (22) 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.

- (23) o homem / a mulher / os homens / as
the.M man / the.F woman / the.MPL men / the.FPL
mulheres
women
'the man / the woman / the men / the women'

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).

- (24) $V+v$ [$_{VP}$ t_V ...]

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.

- (25) [$V+v$] $_i$ +T [$_{vP}$ t_i [$_{VP}$ t_V ...]]

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 $\langle et, t \rangle$ may not undergo argument ellipsis. In the present section, I sketch these two accounts. In the fourth chapter, I argue that expressions of type $\langle et, t \rangle$ 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 $\langle e, t \rangle$, the question arises as to how sentences with NP arguments compose successfully.

Tomioka (2003) proposes that Japanese has two methods for dealing with type $\langle e, t \rangle$ 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: $[\text{IP Ken-wa}_1 [\text{VP } t_1 \text{ ronbun-o yonda}]]$
 - b. For any assignment g , $\llbracket \text{yonda} \rrbracket^g = \lambda x. \lambda y. \text{read}(x)(y)$
 - c. $\llbracket \text{ronbun-o} \rrbracket^g = \lambda z. \text{paper}(z)$
 - d. $\iota(\llbracket \text{ronbun-o} \rrbracket^g) = \iota x. \text{paper}(x)$
 - e. $\llbracket \text{VP} \rrbracket^g = \llbracket \text{yonda} \rrbracket^g(\iota(\llbracket \text{ronbun-o} \rrbracket^g))(\llbracket t_1 \rrbracket^g)$
 - f. $= \text{read}(\iota x. \text{paper}(x))(g(1))$
 - g. $\llbracket \text{IP} \rrbracket^g = \lambda z. \llbracket \text{VP} \rrbracket^{gz/1}(\text{Ken})$
 - h. $= \text{read}(\iota x. \text{paper}(x))(\text{Ken})$

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 , $\llbracket \text{yonda} \rrbracket^g = \lambda x \lambda y. \text{read}(x)(y)$
 - c. $\llbracket \text{VP}_1 \rrbracket^g = \llbracket \text{yonda} \rrbracket^g(\llbracket t_1 \rrbracket^g)(\llbracket t_2 \rrbracket^g) = \text{read}(g(1))(g(2))$
 - d. $\llbracket \text{VP}_2 \rrbracket^g = \lambda x. \llbracket \llbracket \text{ronbun-o} \rrbracket^g(x) \ \& \ \lambda y. \llbracket \text{VP}_1 \rrbracket^{gy/1}(x)$
 - e. $= \lambda x. \text{paper}(x) \ \& \ \text{read}(x)(g(2))$
 - f. $\llbracket \text{VP}_3 \rrbracket^g = \exists x. \text{paper}(x) \ \& \ \text{read}(x)(g(2))$
 - g. $\llbracket \text{IP} \rrbracket^g = \lambda z. \llbracket \text{VP}_3 \rrbracket^{gz/2}(\text{Ken})$
 - 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 $\langle e, t \rangle$, 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 $\langle e, t \rangle$. More accurately, the assignment function may assign denotations of type $\langle e, t \rangle$ to null pronouns in

⁷In 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.

⁸The 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 τ such that $\langle n, \tau \rangle \in \text{dom}(g)$, $g(n, \tau) \in D_\tau$. (Heim and Kratzer, 1998, p. 292)
- (31) a. Via *pro*-raising and \exists -closure:
 $\exists [_{\text{VP}} \text{pro}_{\langle 3, \text{et} \rangle} [_{\text{VP}} t_{\langle 2, e \rangle} t_{\langle 3, e \rangle} \text{bought}]]$ ($t_{\langle 2, e \rangle}$ is the subject trace)
 b. $\llbracket t_{\langle 2, e \rangle} t_{\langle 3, e \rangle} \text{katta} \rrbracket^g = \text{bought}(g(\langle 3, e \rangle))(g(\langle 2, e \rangle))$
 c. Assume $g := [\langle 3, \text{et} \rangle \rightarrow \lambda y. \text{car}(y)]$
 d. $\llbracket \text{pro}_{\langle 3, \text{et} \rangle} \rrbracket^g = \lambda y. \text{car}(y)$
 e. $\llbracket [\text{pro}_{\langle 3, \text{et} \rangle} [t_{\langle 2, e \rangle} t_{\langle 3, e \rangle} \text{katta}]] \rrbracket^g$
 f. $= \lambda x. [\llbracket \text{pro}_{\langle 3, \text{et} \rangle} \rrbracket^g(x) \ \& \ \lambda z. \llbracket t_{\langle 2, e \rangle} t_{\langle 3, e \rangle} \text{katta} \rrbracket^{gz/\langle 3, e \rangle}(x)]$
 g. $\lambda x. [\lambda y. \text{car}(y)(x) \ \& \ \lambda z. \text{bought}(z)(g(\langle 2, e \rangle))(x)]$
 h. $\lambda x. [\text{car}(x) \ \& \ \text{bought}(x)(g(\langle 2, e \rangle))]$
 i. $\exists (\llbracket [\text{pro}_{\langle 3, \text{et} \rangle} [t_{\langle 2, e \rangle} t_{\langle 3, e \rangle} \text{katta}]] \rrbracket^g)$
 j. $= \exists x [\text{car}(x) \ \& \ \text{bought}(x)(g(\langle 2, e \rangle))]$

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 , $\llbracket \text{pro}_{i(j)} \rrbracket^g = g(i)(g(j))$
- (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. $\llbracket \text{pro}_{3(2)} \rrbracket^g = \lambda y. \text{house}(y)(g(2))$
 d. $\iota(\llbracket \text{pro}_{3(2)} \rrbracket^g)$
 e. $= \iota y. [\text{house}(y)(g(2))]$
 f. $\llbracket \text{VP} \rrbracket^g = \text{sold}(\iota y. [\text{house}(y)(g(2))])(g(2))$
 g. $\llbracket \text{IP} \rrbracket^g = \lambda x. \llbracket \text{VP} \rrbracket^{gx/2}$
 h. $= \lambda x. \text{sold}(\iota y. [\text{house}(y)(x)])(x)(\text{Erika})$
 i. $= \text{sold}(\iota y. [\text{house}(y)(\text{Erika})])(\text{Erika})$

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

⁹The 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 readings.

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 $\langle e,t \rangle$. 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 $\langle et,t \rangle$).

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 $pro_{\langle e,t \rangle}$) should never denote expressions of type $\langle et,t \rangle$. 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 $\langle et,t \rangle$; 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 $\langle et,t \rangle$ ’ 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 $\langle et,t \rangle$.

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 $pro_{\langle e,t \rangle}$. 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.¹⁰

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

- (36) Tomioka (2003), Prediction:
 If argument ellipsis (in a given language) is to be analyzed in terms of $pro_{\langle e,t \rangle}$, 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 $\langle e,t \rangle$, but not of type $\langle et,t \rangle$.

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 $\langle et,t \rangle$. 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-

¹⁰For further arguments that modified numerals are generalized quantifiers and not type $\langle e,t \rangle$ -denoting expressions, see Reinhart (1997, pp. 383-388).

ever, Bošković (2016, 2017) analyzes argument ellipsis in terms of actual ellipsis.

The details of Bošković (2016, 2017)’s analysis run as follows. First, LF-copying may only target expressions of type $\langle e, t \rangle$. 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 ϕ -features; in other languages, some or all of these heads enter the derivation without ϕ -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 $\langle et, t \rangle$); in other languages, they are NPs (and hence denote expressions of type $\langle e, t \rangle$).¹¹

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 $\langle e, t \rangle$ derives the following generalization, due to Cheng (2013).

(37) Argument ellipsis is available only in NP languages.¹²

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

¹¹According 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.

¹²This is a one-way entailment. DP languages never allow argument ellipsis. NP languages may, but need not.

¹³Note that the type shifting *iota* operation applies in the semantics proper, after LF. When LF-copying applies, the NP argument is still of type $\langle e, t \rangle$, hence eligible for undergoing LF-copying.

¹⁴Based 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 $\langle e, t \rangle$. (For example, some could be $\langle e, t \rangle$ while the others are $\langle et, t \rangle$.) If only some are of type $\langle e, t \rangle$, 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 $\langle et, t \rangle$. Hence, his account, like Tomioka (2003)'s, predicts that argument ellipsis does not target expressions of type $\langle et, t \rangle$.

(38) Bošković (2016, 2017), Prediction:
Argument ellipsis does not target expressions of type $\langle et, t \rangle$.

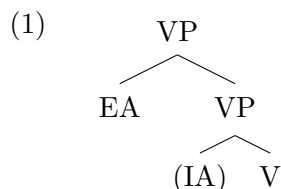
to target only certain arguments in NP languages, namely those that are of type $\langle e, t \rangle$.

A NOVEL ACCOUNT OF THE DISTRIBUTION OF ARGUMENT ELLIPSIS

3.1 INTRODUCTION

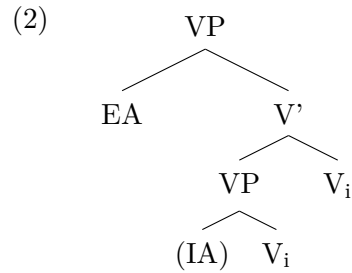
According to the account of argument ellipsis developed in this thesis, the distribution of argument ellipsis in a given language is tied to whether the language in question is VO or OV. In VO languages with argument ellipsis, arguments can elide only if they are immediately preceded by a verb. In OV 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.^{1,2}



¹Note 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*.

²Here 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-mainstream. 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

³The 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)

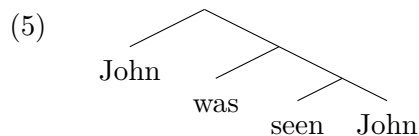
The interface between syntax and phonology consists of a set of processes, which apply sequentially in the following order (Ackema and Neeleman, 2004, pp. 258-9).

- (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}}}



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

⁴Ackema 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.

⁵Ackema 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

Movement. Note that the replacement of traces with copies does not adversely affect the functioning of the mapping principles in (3-a), (3-b), and (3-c), so far as I can discern.

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.⁶

- (7) Dutch
- a. dat [Jan_i [Marie [naakt_i ontmoette]]]
 - b. dat [Jan [Marie_i [naakt_i ontmoette]]]
 - c. dat [Jan_i [naakt_i [Marie ontmoette]]]
 - d. *dat [Jan [naakt_i [Marie_i ontmoette]]]
'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 *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.⁷

- (8) *Thematic Mapping*
An argument α can be associated with a thematic role of a predicate π if and only if
- a. α c-commands π , and
 - b. π m-commands α .

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

⁶In the following example, coindexation signifies subject-predicate relations, not movement.

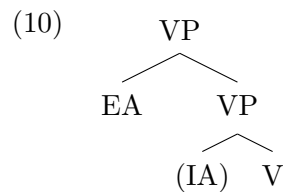
⁷" α c-commands β if the first node dominating α also dominates β . α m-commands β if the first maximal projection dominating α also dominates β . We assume that segments as well as categories count as dominating nodes." (Neeleman and Weerman, 1999, p.20, fn.1)

thematic role, designated as external. This role must be assigned to an argument outside of the head's maximal projection.

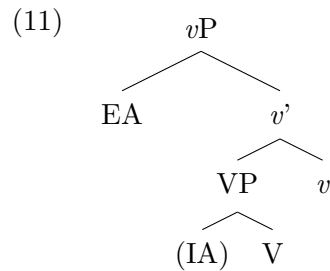
As in Williams (1980, 1981)'s system, the assigner of the external thematic role is not the lexical head itself, but the head's maximal projection. Stated in terms of the mapping principle in (8), the predicate in the definition above is the lexical head's maximal projection when the thematic role is 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}



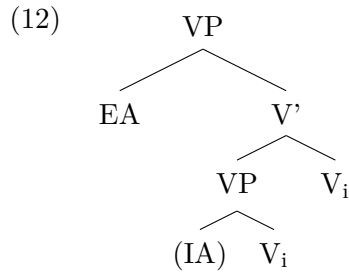
In principle, one would expect that an external argument could be generated in [Spec, *v*P].



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.

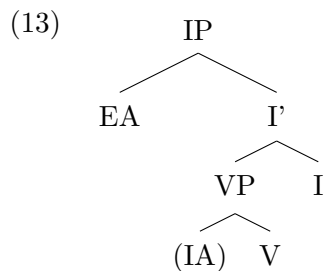
⁸Recall that segments count as dominating nodes.

⁹I 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.

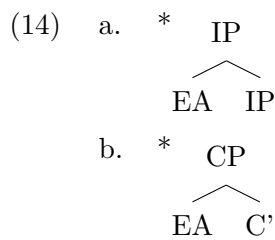


In a VP-shell structure, an external argument can be base-generated in the specifier position of the upper shell. This position c-commands, and is m-commanded by, the lower VP node. Hence, the argument can be associated with the VP's external thematic role.¹⁰

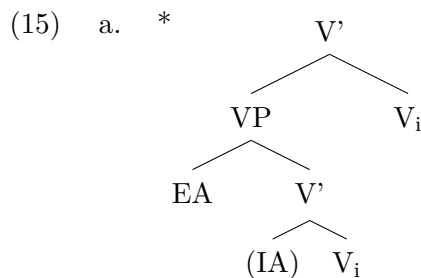
External arguments may also be base-generated in [Spec, IP].



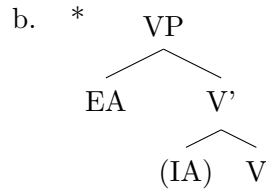
They cannot be generated any higher, however.



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



¹⁰Both 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.

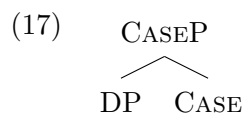
(16) *Visibility*

A thematic relation between an argument α and a predicate π can be established if either α is marked as an argument or π 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

¹¹Recall 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.



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 NOP, for 'nominal predicate'.¹²

We propose that case shells are uniformly marked $\langle \alpha \text{NOP} \rangle$.

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 categorial 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 $\langle \alpha \text{NOP} \rangle$ (Neeleman and Weerman, 1999, p. 89).

In short, dependent marking is achieved by merging a case shell bearing the feature 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,

the marked predicate is not a head but a maximal projection. Once the notion of head marking is elaborated upon below, this point of terminological infelicity will cease to be a source of potential confusion.

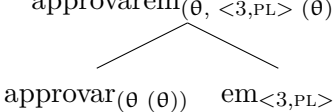
¹²The feature is written as $\langle \alpha \text{NOP} \rangle$ in the quotation. Here and below, Greek letters signify that the relevant feature is unvalued, a detail that can be ignored for the time being.

an internal grid, listing all the properties specified as internal, and an external grid, listing all the properties specified as external.¹³

- (18) *expect*
 <+V,-N>
 (... θ ... (... θ ...))

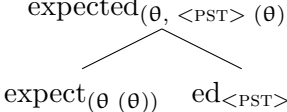
When a complex verb is formed, the information carried by the affix is copied into the external portion or the internal portion of the verb's grid. For instance, agreement information carried by the Portuguese affix *-em* '3PL' is copied into the verb's external grid, reflecting the fact that the verb agrees with its external argument, not its internal argument.¹⁴

- (19) *aprovar-em* 'approve.INF-3PL'

- (20) $\text{aprovarem}_{(\theta, \langle 3, \text{PL} \rangle (\theta))}$


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 *-ed* is copied into the verb's external grid.

- (21) $\text{expected}_{(\theta, \langle \text{PST} \rangle (\theta))}$


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 external 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

¹³The internal grid is distinguished from the external grid by embedding the former in the latter.

¹⁴When an internal argument is the subject (as it is when the verb is unaccusative or passive), Portuguese nonetheless exhibits subject-verb agreement. For reasons of presentational focus, I will not go into how Neeleman and Weerman (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 α can be associated with a thematic role of a predicate π if and only if

- a. α c-commands π , and
- b. π m-commands α .

(23) *Visibility*

A thematic relation between an argument α and a predicate π can be established if either α is marked as an argument or π 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 <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 [<PRS>] is unmarked with respect to [<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 θ -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

¹⁵Neeleman 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) $[_{VP} \text{ IA } [_{VP} \text{ OP}_i \text{ } [_{V'} \text{ OP}_i \text{ V }]]]$

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) [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.

¹⁶Thus, 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.

(30) 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.¹⁷ 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 $\langle \pm \text{MAR} \rangle$ and $\langle \pm \text{NOP} \rangle$. In Neeleman and Weerman (1999, p. 87)'s words:

We will call the feature that distinguishes dative from accusative $\langle +\text{MAR} \rangle$ 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 $\langle +\text{NOP} \rangle$ (for 'nominal predicate'). This feature expresses that genitive case is typically realized in projections of nouns and adjectives, that is, projections specified as $\langle +\text{N} \rangle$. In contrast, accusative is typically assigned by verbs and prepositions, that is, $\langle -\text{N} \rangle$ categories.

These features are combined in the following fashion, thus structuring a case paradigm consisting of accusative, dative, and genitive.¹⁸

- (31) a. ACC = $\langle -\text{MAR}, -\text{NOP} \rangle$
 b. DAT = $\langle +\text{MAR}, \pm \text{NOP} \rangle$
 c. GEN = $\langle -\text{MAR}, +\text{NOP} \rangle$

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

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

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 = <-MAR>
 b. DAT = <+MAR>

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- \emptyset

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.

(35) -ur: <masculine, declension I, singular>

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) a. -s: << -DEP, +NOP>, ...>
 b. -i: << +DEP, ±NOP>, ...>
 c. -ø: << -DEP, -NOP>, ...>

Neeleman and Weerman (1999) argue that the lexical entries for nominative affixes such as *-ga* do specify that the affix is nominative. The authors analyze nominative in terms of the feature TEP, which stands for ‘tensed predicate’.²⁰

(37) NOM = <+TEP>

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 <+TEP>; 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) 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 <+TEP>; aside from this feature, it contains no

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

²⁰For 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, <TEP>. 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.²¹

- (39) *Thematic Hierarchy*
 Agent > Theme > Goal
 (Neeleman and Weerman, 1999, p. 46)

As for their hierarchy of syntactic arguments, the following approximation will suffice.²²

- (40) *Hierarchy of Syntactic Arguments*
 external argument > internal argument merged as sister-to-V > internal argument merged in [Spec, VP]

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

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

²²Neeleman 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
 that the woman the men.DAT the film.ACC
 zeigt]]
 shows
 'that the woman shows the men the film'
- b. Dass die Frau [VP den Film [V' den Männern
 that the woman the film.ACC the men.DAT
 zeigt]]
 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, $\langle \beta_{\text{MAR}} \rangle$. 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 MAR feature, namely $\langle +\text{MAR} \rangle$; and DPs with morphological accusative case bear the valued feature, $\langle -\text{MAR} \rangle$. Thus, when a case shell with the unvalued feature $\langle \beta\text{MAR} \rangle$ merges with a DP with dative case, the case shell's feature receives the value, '+'.²³

$$(43) \quad \text{Merge}(\text{DP}_{\langle +\text{MAR} \rangle}, \text{CASE}_{\langle \alpha\text{MAR} \rangle}) \rightarrow$$

$$(44) \quad [\text{CASEP DP}_{\langle +\text{MAR} \rangle} \text{CASE}_{\langle +\text{MAR} \rangle}]$$

Analogously, merging a case shell that bears the unvalued feature $\langle \beta\text{MAR} \rangle$ with an accusative DP values the feature, '-'.

$$(45) \quad \text{Merge}(\text{DP}_{\langle -\text{MAR} \rangle}, \text{CASE}_{\langle \alpha\text{MAR} \rangle}) \rightarrow$$

$$(46) \quad [\text{CASEP DP}_{\langle -\text{MAR} \rangle} \text{CASE}_{\langle -\text{MAR} \rangle}]$$

At the syntax-semantics interface, there is a mapping rule, mapping DPs headed by a case shell bearing $\langle +\text{MAR} \rangle$ 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 $\langle -\text{MAR} \rangle$ 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 $\langle \beta\text{MAR} \rangle$ merges with a DP that lacks morphological case (more specifically, that lacks the feature 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 $\langle \beta\text{MAR} \rangle$.

²³As noted above, in languages in which the case paradigm consists of dative and accusative only, these two cases are analyzed in terms of the 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 MAR feature and the NOP feature. In the representations in (43)-(46), the DPs bear only the MAR feature. This is for presentational convenience only. Note, also, that all case shells bear the feature $\langle \alpha\text{NOP} \rangle$, an unvalued feature. This feature has also been omitted—again, for presentational purposes.

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 $\langle \alpha \text{NOP} \rangle$.

3.3.4 *Summary*

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

(47) *Thematic Mapping*

An argument α can be associated with a thematic role of a predicate π if and only if

- a. α c-commands π , and
- b. π m-commands α .

(48) *Visibility*

A thematic relation between an argument α and a predicate π can be established if either α is marked as an argument or π 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.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

²⁴Recall 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 $\langle \alpha \text{NOP} \rangle$.

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 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 MAR feature; they bear only a 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.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.

²⁵By '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, $\langle \alpha_{\text{NOP}} \rangle$ and (sometimes) $\langle \beta_{\text{MAR}} \rangle$. 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 $\langle \alpha_{\text{NOP}} \rangle$ will have this feature valued if and only if it merges with a DP bearing $\langle +\text{NOP} \rangle$ or $\langle -\text{NOP} \rangle$. A case shell with the feature $\langle \beta_{\text{MAR}} \rangle$ will have this feature valued if and only if it merges with a DP bearing $\langle +\text{MAR} \rangle$ or $\langle -\text{MAR} \rangle$.

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

- (49) a. $\text{Merge}(\text{DP}_{\langle +\text{NOP} \rangle}, \text{CASE}_{\langle \alpha_{\text{NOP}} \rangle}) \rightarrow$
 b. $[\text{CASEP DP}_{\langle +\text{NOP} \rangle} \text{CASE}_{\langle +\text{NOP} \rangle}]$
- (50) a. $\text{Merge}(\text{DP}_{\langle +\text{NOP}, -\text{MAR} \rangle}, \text{CASE}_{\langle \alpha_{\text{NOP}} \rangle}) \rightarrow$
 b. $[\text{CASEP DP}_{\langle +\text{NOP}, -\text{MAR} \rangle} \text{CASE}_{\langle +\text{NOP} \rangle}]$
- (51) a. $\text{Merge}(\text{DP}_{\langle +\text{NOP}, -\text{MAR} \rangle}, \text{CASE}_{\langle \alpha_{\text{NOP}}, \beta_{\text{MAR}} \rangle}) \rightarrow$
 b. $[\text{CASEP DP}_{\langle +\text{NOP}, -\text{MAR} \rangle} \text{CASE}_{\langle +\text{NOP}, -\text{MAR} \rangle}]$

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.

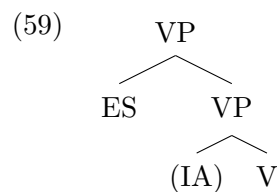
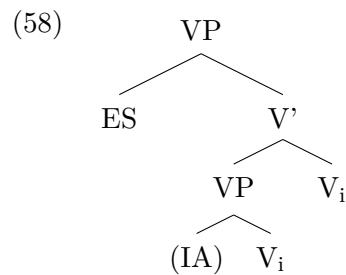
- (52) a. $\text{Merge}(\text{DP}, \text{CASE}_{\langle \alpha_{\text{NOP}}, \beta_{\text{MAR}} \rangle}) \rightarrow$
 b. $[\text{CASEP DP} \text{CASE}_{\langle \alpha_{\text{NOP}}, \beta_{\text{MAR}} \rangle}]$
- (53) a. $\text{Merge}(\text{DP}_{\langle +\text{NOP} \rangle}, \text{CASE}_{\langle \alpha_{\text{NOP}}, \beta_{\text{MAR}} \rangle}) \rightarrow$
 b. $[\text{CASEP DP}_{\langle +\text{NOP} \rangle} \text{CASE}_{\langle +\text{NOP}, \beta_{\text{MAR}} \rangle}]$
- (54) a. $\text{Merge}(\text{DP}_{\langle -\text{MAR} \rangle}, \text{CASE}_{\langle \alpha_{\text{NOP}} \rangle}) \rightarrow$
 b. $[\text{CASEP DP}_{\langle -\text{MAR} \rangle} \text{CASE}_{\langle \alpha_{\text{NOP}} \rangle}]$
- (55) a. $\text{Merge}(\text{DP}_{\langle +\text{TEP} \rangle}, \text{CASE}_{\langle \alpha_{\text{NOP}} \rangle}) \rightarrow$
 b. $[\text{CASEP DP}_{\langle +\text{TEP} \rangle} \text{CASE}_{\langle \alpha_{\text{NOP}} \rangle}]$
- (56) a. $\text{Merge}(\text{DP}, \text{CASE}_{\langle \alpha_{\text{NOP}} \rangle}) \rightarrow$
 b. $[\text{CASEP DP} \text{CASE}_{\langle \alpha_{\text{NOP}} \rangle}]$

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 α governs β iff
- a. α follows β , and
 - b. α and β 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



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

²⁶This 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.

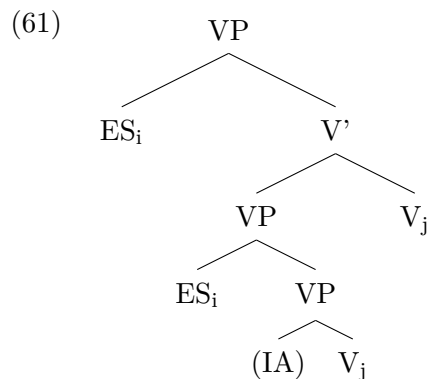
VP-shell, and not as an adjunct to VP. Only the former position is head governed.

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.



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-

²⁸Above, 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.

$$(64) \quad [_{VP} IA_i [_{V'} [_{CP} IA_i \dots [_{VP} IA_i V]]]]$$

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_i ... [CP ES_i ... [VP ES_i ...]]]

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.³⁰

- (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

³⁰Thus, ZP and YP are local to V in (i), but XP is not.

- (i) $[_{VP} XP [_{VP} YP [_{V'} ZP V]]]$

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

- (ii) $[_{VP} XP [_{V'} [_{VP} YP V_i] V_i]]$

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) $\text{Argument}_{\text{def}}$: The maximal projection in the (extended) projection of a head of category $\langle -V \rangle$ (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) 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

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.

³¹Various 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 *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 *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.

- (72) 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.³² 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.

- (73) 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.

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

³²The 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 Agr 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'.

³³If 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]
 (Nespor and Vogel (1986, p.202), citing Chomsky and Halle (1968, p. 372))

³⁴Indeed, 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) [VP IA [V^o 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.

³⁵Recall 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) [IA_i ... [VP IA_i 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) Arg_i ... 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.

- (78) 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.

- (79) 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.

- (80) $[_{VP} ES [_{V'} [_{VP} (IA) V_i] V_i]]$

- (81) $[_{VP} ES [_{VP} IA V]]$

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.

- (82) 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.

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

Similarly put:

- (84) 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.

- (85) 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 DISTRIBUTION OF ARGUMENT ELLIPSIS
IN BRAZILIAN PORTUGUESE

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.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 *pro*_{def}.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

¹Cyrino (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.

²In the second chapter, I discussed Tomioka (2003)'s property-denoting null pronoun, which I referred to as *pro*_{<e,t>}. By *pro*_{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_{def} —a definite pronoun—cannot give rise to an indefinite interpretation; hence, the null object is not always pro_{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 $pro_{\langle e,t \rangle}$. 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 $\langle et,t \rangle$. 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_{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
 the João NEG signed no document before
 da secretária terminar de revisá-lo.
 of.the secretary finish.INF of revise.INF-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’.

- (4) a. O João não assinou nenhum documento antes
 the João NEG signed no document before
 da secretária terminar de revisá-los.
 of.the secretary finish.INF of revise.INF-them

‘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
 no child that wins a toy new will
 querer emprestar ele pros irmãos.
 want.INF lend.INF it to.the siblings
 ‘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
 the João NEG signed no document before of.the
 secretária terminar de revisar ____.
 secretary finish.INF of revise.INF ____
 ‘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
 no child that wins a toy new will
 querer emprestar ____ pros irmãos.
 want.INF lend.INF ____ to.the siblings
 ‘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}.

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
 the João will show a book to.the Maria and the
 Pedro vai mostrar ___ pra Júlia.
 Pedro will show ___ to.the Julia
 ‘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
 the João NEG will fry no egg for.the Maria
 e o Pedro não vai fritar ___ pra Júlia.
 and the Pedro NEG will fry ___ for.the Julia
 ‘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
 the João gave two cakes to.the Maria and the Pedro
 deu ___ pra Júlia.
 gave ___ to.the Julia
 ‘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
the João will show a book to.the Maria and the
Pedro vai mostrar ele pra Júlia.
Pedro will show it to.the Julia
'João will show a book to Maria, and Pedro will show
it to Julia.'
- 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
the João NEG will fry no egg for.the Maria
e o Pedro não vai fritar ele pra Júlia.
and the Pedro will NEG fry it for.the Julia
'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
the João NEG will fry no egg for.the Maria
e o Pedro não vai fritar eles pra Júlia.
and the Pedro will NEG fry them for.the Julia
'João will not fry an egg for Maria, and Pedro will not
fry them for Julia.'

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

- a. O João deu dois bolos pra Maria e o Pedro
the João gave two cakes to.the Maria and the Pedro
deu eles pra Júlia.
gave them to.the Julia
'João gave two cakes to Maria, and Pedro gave them to
Julia.'
- 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,
the João gave carefully two glasses to.the Maria
mas o Pedro não deu.
but the Pedro NEG gave
'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 t_V [~~duas taças~~] [pra Maria]]]
 b. não deu+T [VP ~~cuidadosamente~~ [VP t_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 t_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_i while she_i was drunk, and Pedro didn’t relate any happening to Patricia.’
 ≠ (b) ‘João didn’t relate any happening to Julia_i while she_i was drunk, and Pedro didn’t relate any happening to Patricia_j while she_j 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.

- (19) não contou+T [VP t_V 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.

- (20) O João não contou nenhum acontecimento pra Maria
the João NEG related no happening to.the Maria
bêbada e o Pedro não contou também.
drunk.F and the Pedro NEG related also
'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.

- (21) não contou+T [VP t_V {~~nenhum acontecimento~~} {~~pra Maria~~}
{~~bêbada~~}]

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

- (22) não contou+T [~~VP t_V nenhum acontecimento pra Maria 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.

- (23) 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 nenhum ovo
drunk.F and the Pedro NEG will fry.INF no egg
pra Júlia.
for.the Julia
= (a) 'João won't fry an egg for Maria_i when she_i is drunk,
and Pedro won't fry an egg for Julia.'
≠ (b) 'João won't fry an egg for Maria_i when she_i is drunk,
and Pedro won't fry an egg for Julia_j when she_j is drunk.'

- (24) 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 também.
 drunk and the Pedro NEG will fry.INF also
 ‘João won’t fry an egg for Maria when she is drunk, and
 Pedro won’t fry an egg for Maria when she is drunk, either.’

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) não vai+T [_{AspP} fritar+Asp [_{VP} t_{fritar} [~~nenhum ovo~~] [_{pra}
 Maria] [_{bêbada}]]] também
- (26) não vai+T [_{AspP} fritar+Asp [_{VP} t_{fritar} ~~nenhum ovo pra Maria~~
 bêbada]]] também

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) O João comprou uma mesa e o Pedro comprou ____
 the João bought a table and the Pedro bought ____
 também.
 also
 ‘João bought a table, and Pedro bought a table, too.’

- (28) comprou+T [_{VP} t_V ~~uma mesa~~] também

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) O João vai mostrar um livro pra Maria e o
 the João will show a book to.the Maria and the
 Pedro vai mostrar ____ pra Júlia.
 Pedro will show ____ to.the Julia
 ‘João will show a book to Maria, and Pedro will show a book
 to Julia.’

⁴For concreteness, I label the position to which the infinitive raises ‘Asp’.

- (30) O João não vai fritar nenhum ovo pra Maria e o
 the João NEG will fry no egg for.the Maria and the
 Pedro não vai fritar ___ pra Júlia.
 Pedro NEG will fry ___ for.the Julia
 ‘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
 the João gave two cakes to.the Maria and the Pedro gave
 ___ pra Júlia.
 ___ to.the Julia
 ‘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 _{TPP}]

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

- (33) a. O João deu cuidadosamente duas taças pra
 the João gave carefully two glasses to.the
 Maria, mas o Pedro não deu ___ pra Júlia.
 Maria but the Pedro NEG gave ___ to.the Julia
- b. O João deu cuidadosamente duas taças pra
 the João gave carefully two glasses to.the
 Maria_i, mas o Pedro não deu ___ pra ela_i.
 Maria_i but the Pedro NEG gave ___ to her_i

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~~ ~~t_{PP}~~]]]]
- (37) não deu [_{XP} [pra ela] [_{VP} ~~cuidadosamente~~ [_{VP} ~~tv~~ ~~duas taças~~ ~~t_{PP}~~]]]]

With these conclusions drawn, consider the following sentences again.

- (38) O João vai mostrar um livro pra Maria e o
 the João will show a book to.the Maria and the
 Pedro vai mostrar ___ pra Júlia.
 Pedro will show ___ to.the Julia
 ‘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
 the João NEG will fry no egg for.the Maria and the
 Pedro não vai fritar ___ pra Júlia.
 Pedro NEG will fry ___ for.the Julia
 ‘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
 the João gave two cakes to.the Maria and the Pedro gave
 ___ pra Júlia.
 ___ to.the Julia
 ‘João gave two cakes to Maria, and Pedro gave two cakes to Julia.’

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.⁵

- (41) O João deu duas taças pra Maria e o Pedro
 the João gave two glasses to.the Maria and the Pedro
 deu ___ pra ela também.
 gave ___ to her too
 ‘João gave two glasses to Maria, and Pedro gave two glasses to her, too.’
- (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
- (43) O João deu duas taças pra Maria e o Pedro
 the João gave two glasses to.the Maria and the Pedro
 deu elas pra ela também.
 gave them to her too
 ‘João gave two glasses to Maria, and Pedro gave them to her, too.’
- (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
- (45) a. Pedro: O João vai comprar um livro pra Maria.
 the João will buy.INF a book for.the Maria
 ‘João will buy a book for Maria.’
 b. Bruno: Que coincidência! O Paulo vai comprar
 What coincidence! the Paulo will buy.INF
 ___ pra ela também.
 ___ for her too
 ‘What a coincidence! Paulo will buy a book for her, too!’
 c. Bruno: Que coincidência! #O Paulo vai comprar ele
 What coincidence! the Paulo will buy.INF it
 pra ela também.
 for her too
 ‘What a coincidence! Paulo will buy it for her, too!’
- (46) (Reading of the dialogue in (45-a) and (45-b))
 It will be the case that there is a book, x, such that João buys x for Maria. It will be the case that there is a book, y, such that Paulo buys y for Maria.
- (47) a. Pedro: O João vai comprar três livros pra
 the João will buy.INF three books for.the
 Maria.
 Maria
 ‘João will buy three books for Maria.’

⁵The 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}.

- b. Bruno: Que coincidência! O Paulo vai comprar
 What coincidence! the Paulo will buy.INF
 ___ 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
 What coincidence! the Paulo will buy.INF
 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 [XP [pra Júlia] [_{VP} t_V nenhum ovo t_{PP} 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 Patricia
 ≠ (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_i when she_i 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
 the João will buy.INF exactly three books
 pra Maria.
 for.the Maria
 ‘João will buy exactly three books for Maria.’
- b. Bruno: Que coincidência! O Paulo vai comprar
 What coincidence! the Paulo will buy.INF
 ___ pra ela também.
 ___ for her too
 ‘What a coincidence! Paulo will buy exactly three books
 for her, too!’
- c. Bruno: Que coincidência! #O Paulo vai comprar
 What coincidence! the Paulo will buy.INF
 eles pra ela também.
 them for her too
 ‘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*

três 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.

- (55) a. Pedro: O João vai comprar um livro pra Maria.
 the João will buy.INF a book for.the Maria
 ‘João will buy a book for Maria.’
 b. Bruno: Que coincidência! O Paulo vai comprar
 What coincidence! the Paulo will buy.INF
 ___ pra ela também.
 ___ 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 $\langle e,t \rangle$. Once again, then, an analysis in terms of $pro_{\langle e,t \rangle}$ is inappropriate.

I therefore conclude that BP does not permit $pro_{\langle e,t \rangle}$. 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: $pro_{\langle e,t \rangle}$ 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
the João wants a painting on.this wall and the
Pedro quer ___ naquela.
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
the João wants two paintings on.this wall and the
Pedro quer ___ naquela.
Pedro wants ___ on.that
'João wants two paintings on this wall, and Pedro wants two paintings 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
the João NEG wants two paintings on.this wall and
o Pedro não quer ___ naquela.
the Pedro NEG wants ___ on.that
'João does not want two paintings on this wall, and Pedro does not want two paintings 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
the João wants a painting on.this wall and the
Pedro quer ele naquela.
Pedro wants it on.that
'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.

- (63) a. %O João quer dois quadros nessa parede e o
 the João wants two paintings on.this wall and the
 Pedro quer eles naquela.
 Pedro wants them on.that
 ‘João wants two paintings on this wall, and Pedro wants
 them on that wall.’
 b. There are two paintings such that João wants them on
 this wall and Pedro wants those same two paintings on
 that wall.
- (64) a. %O João não quer dois quadros nessa parede e
 the João NEG wants two paintings on.this wall and
 o Pedro não quer eles naquela.
 the Pedro NEG wants them on.that
 ‘João does not want two paintings on this wall, and
 Pedro does not want them on that wall.’
 b. There are two paintings such that João does not want
 them on this wall and Pedro does not want those same
 two paintings on that wall.

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
 the João wants a painting on.this wall and the Pedro
 quer ___ naquela.
 wants ___ on.that
 ‘João wants a painting on this wall, and Pedro wants a painting on that wall.’

- (66) ... e o Pedro quer+T [_{XP} naquela_i [_{VP} t_V [_{SC} um-quadro t_i]]]

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
 the João wants much two paintings on.this wall and
 o Pedro quer dois quadros nessa também.
 the Pedro wants two paintings on.this too
 = (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
 the João wants much two paintings on.this wall and
 o Pedro quer também.
 the Pedro wants too
 ‘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 t_V~~ [~~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_i [~~VP muito~~ [~~VP t_V~~ [~~SC dois quadros t_i~~]]]]

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_i [~~VP muito~~ [~~VP t_V~~ [~~SC dois quadros t_i~~]]]]

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_{non-contrastive} [_{VP} t_V (...) t_{XP} (...)]
 b. %V XP_{contrastive} [_{VP} t_V (...) t_{XP} (...)]

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
 the João wants two paintings on.this wall and the
 Pedro quer ___ nessa também.
 Pedro wants ___ on.this too

‘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
the João wants much two paintings on.this wall
e o Pedro quer muito ___ nessa também.
and the Pedro wants much ___ on.this too
‘João very much wants two paintings on this wall, and Pedro very much wants two paintings on this wall, too.’
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) Contexto: 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
the Maria saw each book be.SG read.SG by.the POSS
autor e a Júlia viu ___ ser lido pelo seu
author and the Julia saw ___ be.SG read.SG by POSS
ilustrador.
illustrator
‘Maria saw each book read by its author, and Julia saw
each book 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 *pro*_{def}. 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
the Maria saw each book be.SG read.SG by.the POSS
autor e a Júlia viu ele ser lido pelo seu
author and the Julia saw it be.SG read.SG by POSS
ilustrador.
illustrator
‘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
the Maria saw each book be.SG read.SG by.the POSS
autor e a Júlia viu eles ser lido pelo
author and the Julia saw them be.SG read.SG by
seu ilustrador.
POSS ilustrador
‘Maria saw each book read by its author, and Julia saw
them read by their illustrator.’

- (89) a. *A Júlia viu eles ser lido.
 the Julia saw them be.SG read.SG
 b. A Júlia viu eles serem lidos.
 the Julia saw them be.PL read.PL
 ‘Julia saw them read.’

Thus, the null subject is not *pro*_{def}. By contrast, argument ellipsis succeeds in generating the quantificational construal. With ellipsis of *cada livro* ‘each book’, the reading in (87-b) is produced.

- (90) ... e a Júlia viu [~~cada livro~~] ser lido pelo seu ilustrator]

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.

- (91) a. V [_{SC} Arg ...]
 b. V [_{TP} Arg ...]

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

- (92) a. Nenhum ovo vai ser frito pra Maria.
 no egg will be fried for.the Maria
 b. Não vai ser frito nenhum ovo pra Maria.
 NEG will be fried no egg for.the Maria
 ‘No egg will be fried for Maria.’

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

- (93) ... e a Júlia viu [ser lido [~~cada livro~~] pelo seu ilustrator]

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.

⁷Similarly, 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 frito pra Maria.
 no egg will be fried for.the Maria
 ‘No egg will be fried for Maria.’
 b. Não vai ser frito nenhum ovo pra Maria.
 NEG will be fried no egg for.the Maria
 ‘No egg will be fried for Maria.’

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 frito pra Maria.
 b. *Vai ser frito nenhum ovo pra Maria.

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 synonymy 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.⁸ 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 frito pra
 on.the Monday, no egg was fried for.the
 Maria. Na terça-feira, ___ foi frito pra Júlia.
 Maria. on.the Tuesday, ___ was fried for.the Julia
 (intended) ‘On Monday, no egg was fried for Maria. On Tues-
 day, no egg was fried for Julia.’
- (98) Na segunda-feira, nenhum ovo foi frito pra
 on.the Monday, no egg was fried for.the
 Maria. Na terça-feira, nenhum ovo foi frito pra
 Maria. on.the Tuesday, no egg was fried for.the
 Júlia.
 Julia
 ‘On Monday, no egg was fried for Maria. On Tuesday, no egg
 was fried for Julia.’
- (99) Na segunda-feira, não foi frito nenhum ovo pra
 on.the Monday, NEG was fried no egg for.the
 Maria. Na terça-feira, não foi frito ___ pra
 Maria. on.the Tuesday, NEG was fried ___ for.the
 Júlia.
 Julia
 ‘On Monday, no egg was fried for Maria. On Tuesday, no egg
 was fried for Julia.’
- (100) Na segunda-feira, não foi frito nenhum ovo pra
 on.the Monday, NEG was fried no egg for.the
 Maria. Na terça-feira, não foi frito nenhum ovo
 Maria. on.the Tuesday, NEG was fried no egg
 pra Júlia.
 for.the Julia

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 frito [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
frito ele pra Júlia.
fried.SG it for.the Julia
- b. Na segunda-feira, não foi frito [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 frito pra Júlia.
was.SG fried.SG for.the Julia
‘On Monday, no egg was fried for Maria. On Tuesday,
it was not fried for Julia.’
- (102) a. Na segunda-feira, não foi frito [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 frito/fritos eles pra Júlia.
was.SG/were.PL fried.SG/fried.PL they for.the Julia
- b. Na segunda-feira, não foi frito [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 frito/fritos pra Júlia.
was.SG/were.PL fried.SG/fried.PL for.the Julia
‘On Monday, no egg was fried for Maria. On Tuesday,
they were not fried for Julia.’

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.

- (103) ... não foi frito [XP pra Júlia [~~VP-TV nenhum ovo t_{PP}]]~~

More generally, this alternative would account for the asymmetry between pre- and post-verbal subjects. Only the 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).⁹

- (104) *Os meninos acham que nenhum ovo vai ser frito
 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 frito 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 frito
 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 frito 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 frito 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 frito 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 frito ___ 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 frito
 [~~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.¹⁰

- (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.’

¹⁰Indeed, 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.

- (109) As meninas falaram que um caminhão atropelou o
 the girls said that a truck ran over the
 João, e/mas os meninos falaram que ___ atropelou
 João and/but the boys said that ___ ran over
 o Pedro.
 the Pedro
 (a) = ‘... and/but the boys said that it (i.e., the truck that
 ran João over) ran Pedro over.’
 (b) ≠ ‘... and/but the boys said that a truck (possibly dis-
 tinct from the truck that ran João over) ran Pedro over.’
- (110) a. ~~{Um caminhão}~~ também atropelou o Pedro.
 b. ~~{Um caminhão}~~ atropelou o Pedro também.
- (111) ... e/mas os meninos falaram que ~~{um caminhão}~~ atropelou
 o Pedro

In summary, the present section has argued that subjects of finite clauses may undergo argument ellipsis in BP. Crucially, they can do so only if postverbal. The contrast between (112-a) and (112-b) provides support for the present account of argument ellipsis, according to which argument ellipsis in BP requires immediate precedence by V.

- (112) a. *... SU V ...
 b. ✓... V SU ...

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 ϕ -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 $pro_{\langle e,t \rangle}$, 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 $\langle e,t \rangle$, but not of type $\langle et,t \rangle$.
- (118) Bošković (2016, 2017), Prediction:
Argument ellipsis does not target expressions of type $\langle et,t \rangle$.

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 ϕ -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 ϕ -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 ϕ -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 ϕ -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
Raj-also paper-CLF read-PST.3
= (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.’

≠ (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.’

≠ (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.’

≠ (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’

- b. #Hanako-wa kuruma-o araw-anak-atta. Hanako-ga
Hanako-TOP car-ACC wash-NEG-PST. Hanako-NOM
arat-ta ato-no kuruma-wa kitanak-atta.
wash-PST after-GEN car-ACC dirty-PST
‘Hanako did not wash the car. The car that Hanako washed was dirty.’

(Funakoshi, 2016)

(127) Korean

- a. Chelswu-nun i pangpep-ulo ikiesta.
Chelswu-TOP this way-in won
‘Chelswu won this way.’

- b. Mina-to ikiesta.
Mina-also won

- = (a) ‘Mina won, too.’
 ≠ (b) ‘Mina won this way, too.’
 (D. Takahashi, 2007)

- (128) Malayalam
- a. anil Chomsky-ute putiya paper librari-(y)il
 Anil Chomksy-GEN new paper library-LOC
 vayicc-u.
 read
 ‘Anil read Chomsky’s new paper in the library.’
- b. radha(u)um Chomsky-ute oputiya paper vayicc-u.
 Radha Chomsky-GEN new paper read-PST
 = (a) ‘Radha also read Chomsky’s new paper.’
 ≠ (b) ‘Radha also read Chomsky’s new paper in the library.’
 (Simpson, Choudhury, and Menon, 2013)

PP-arguments do not function as ϕ -feature goals, either. The AAT therefore predicts that they should freely undergo LF-copy. However, there are languages in which LF-copy cannot target PP-arguments. One such language is Brazilian Portuguese.

To see that this is so, consider (129).

- (129) O João mostrou essa jóia para duas pessoas, mas o
 the João showed this jewel to two people, but the
 Pedro não mostrou ela ____.
 Pedro NEG showed it ____
 (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.¹¹

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

- (132) a. Zhangsan [PP zai san-zhang zhuozi shang] fang
 Zhangsan at three-CLF table on put
 lazhu.
 candles
 ‘Zhangsan put candles on three tables.’
 b. Lisi zeshi ___ fang hua.
 Lisi whereas ___ put flowers
 (Lit.) ‘Whereas Lisi put flowers.’
 (Cheng, 2013, p. 224, fn. 105)

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.¹²

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

¹¹According 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.

- (i) [VP [V' V DP] PP]

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.

- (ii) [V' V_i [VP DP [V' V_i PP]]]

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.

- (iii) O João mostrou o Pedro_i para si_i mesmo (no espelho).
 the João showed the Pedro to SI EMPHATIC (in.the mirror)
 ‘João showed Pedro_i to himself_i (in the mirror).’

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.

- (iv) O João depende [PP deste remédio].
 the João depends of.this medicine
 ‘João depends on this medicine.’

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

¹²Cheng does not indicate what reading (132-b) does allow, only what reading it does not allow.

- (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 ϕ -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 não beijou ela.
 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.'
 ≠ (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_i não beijou ela bêbada ... ele_i beijou ela sóbria.
 the João kissed the Maria drunk.F, but the Pedro
 não beijou ela bêbada ... ele_i 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_i não beijou ela ... ele_i beijou ela sóbria.
 the João kissed the Maria drunk.F, but the Pedro
 não beijou ela ... ele_i 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
 the João ate a steak.F poorly passed.F, but
 o Pedro não comeu uma picanha.
 the Pedro NEG ate a steak
 = (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
 the João NEG related no happening to.the
 Júlia bêbada e o Pedro não contou nenhum
 Julia drunk.F and the Pedro NEG related no
 acontecimento pra Patrícia.
 happening to.the Patricia
 = (a) ‘João didn’t relate any happening to Julia while
 Julia was drunk, and Pedro didn’t relate any happen-
 ing to Patricia.’
 ≠ (b) ‘João didn’t relate any happening to Julia while
 Julia was drunk, and Pedro didn’t relate any happen-
 ing to Patricia while Patricia was drunk.’
- c. O João não vai fritar nenhum ovo pra Maria
 the João NEG will fry.INF no egg to.the Maria
 bêbada e o Pedro não vai fritar nenhum ovo
 drunk.F and the Pedro NEG will fry.INF no egg
 pra Júlia.
 for.the Julia
 = (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.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 (138) (repeated from above), the elided DP visibly agrees with the past participle and with T.¹⁴ In (139) (also repeated from above), it visibly agrees with the past participle. In (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 (141) visibly agrees with the secondary predicate. Note, again, the null argument's indefinite construal.

- (138) Na segunda-feira, não foi fritad-o nenhum
 on.the Monday, NEG be.PRT.SG fried-M [no
 ovo pra Maria. Na terça-feira, não
 egg].SG.M for.the Maria. on.the Tuesday, NEG
 foi fritad-o ___ pra Júlia.
 be.PRT.SG fried-M ___ for.the Julia
 'On Monday, no egg was fried for Maria. On Tuesday, no
 egg was fried for Julia.'

- (139) A Maria viu cada livro ser lid-o pelo seu
 the Maria saw [each book].M be read-M by.the POSS
 autor e a Júlia viu ___ ser lid-o pelo seu
 author and the Julia saw ___ be read-M by POSS
 ilustrador.
 illustrator
 'Maria saw each book read by its author, and Julia saw
 each book read by its illustrator.'

- (140) a. O João nunca viu nenhuma sonata ser tocad-a
 the João never saw [no sonata].F be played-F
 no banjo e o Pedro nunca viu ___ ser
 on.the banjo and the Pedro never saw ___ be
 tocad-a no violão.
 played-F on.the guitar
 'João has never seen a sonata played on the banjo, and
 Pedro has never seen a sonata played on the guitar.'

¹³See chapter 2 for further discussion.

¹⁴The gloss '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
the João served [a steak].F well passed-F and the
Pedro serviu ___ mal passada.
Pedro served ___ poorly done-F
'João served a steak well done, and Pedro served a
steak rare.'
- 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 passada-s
the João served [two steaks].F.PL well passed-F-PL
e o Pedro serviu ___ mal passada-s.
and the Pedro served ___ poorly done-F-PL
'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.
the João never ate no steak well passed
'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' t_V [nenhuma picanha]] [bem passada]]

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

(146) [VP t_V [SC [nenhuma picanha] [bem passada]]]

Rather, the structure is as follows, with the object c-commanding both the verb and the depictive.¹⁵

(147) [VP [nenhum picanha] [V' t_V [bem passada]]]

The following example demonstrates that specifiers can undergo argument ellipsis.

- (148) a. O João nunca comeu nenhuma 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 *pro*_{def}. 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.'

¹⁵What is important for present concerns is that the object is in a specifier position. Under a small clause analysis of secondary predication (e.g., Stowell (1983)), the structure would be as follows, assuming the object must c-command PRO.

(i) [VP [nenhum picanha] [V' t_V [SC PRO [bem passada]]]]

- (150) O João nunca comeu nenhuma picanha bem passada e
~~[nenhuma picanha]~~_{TOP} o Pedro nunca comeu ___ bem pas-
 sada.

In the following example, argument ellipsis targets the subject of a small clause.

- (151) a. O João não quer nenhum quadro nessa parede
 the João NEG wants no painting on.this wall
 e o Pedro não quer ___ naquela.
 and the Pedro NEG wants ___ on.that
 ‘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 $\langle et, t \rangle$ denoting expressions.

- (153) Tomioka (2003), Prediction:
 If argument ellipsis (in a given language) is to be analyzed in terms of $pro_{\langle e, t \rangle}$, 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 $\langle e, t \rangle$, but not of type $\langle et, t \rangle$.
- (154) Bošković (2016, 2017), Prediction:
 Argument ellipsis does not target expressions of type $\langle et, t \rangle$.

As already discussed above, BP allows argument ellipsis of type $\langle et, t \rangle$ 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

¹The 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).

²In 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

- (6) a. Ken-wa san-ko-no booru-o ket-ta.
 Ken-TOP 3-CLITIC-GEN ball-ACC kick-PST
 ‘Ken kicked three balls.’
 b. Masa-mo ___ ket-ta.
 Masa-also ___ kick-PST
 ‘Masa also kicked three balls.’
 c. Masa-mo sorera-o ket-ta.
 Masa-also them-ACC kick-PST
 ‘Masa also kicked them.’ (Ohtaki, 2014, p. 4)

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_{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_{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.

- (7) Masa-mo [~~san-ko-no booru-o~~] ket-ta

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

- (8) Masa-mo [~~VP san-ko-no booru-o t_V~~] ket-ta

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.

- (9) a. Bill-wa kuruma-o teineini arat-ta.
 Bill-TOP car-ACC carefully wash-PST

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.’
- b. John-wa arawa-nakat-ta.
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.’
b. John-wa tabe-nakat-ta.
John-TOP eat-NEG-PST
= (a) ‘John didn’t eat.’
≠ (b) ‘John didn’t eat the meal quietly.’ (Oku, 1998)
- (11) a. John-wa [~~VP kuruma-o teineini t_v~~] arat-ta
b. John-wa [~~VP gohan-o sizukani t_v~~] 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.

- (12) a. Bill-wa teineini kuruma-o araw-anak-atta.
Bill-TOP carefully car-ACC wash-NEG-PST
‘Bill didn’t wash the car carefully.’
b. John-mo araw-anak-atta.
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-anak-atta.
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.⁴ 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_i *pro*_{def} [_{VP} _{t_i} ni-satsu _{t_v}] 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.⁵

⁴I 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”.

⁵As 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
 c. *Taroo-wa ude-o Ken-o tataita.
 Taroo-TOP arm-ACC Ken-ACC hit
 (D. Takahashi, 2008a, p. 403)

- (20) Hanako-wa asi-o_i [_{VP} [_{VP} [zibun-no kodomo-o] t_i t_{VP}]] 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,

< α NOP>. 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.⁶ 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.⁷ 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 haaḏaa 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 haaḏaa 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)

- (24) a. Sannin-no mahootukai-ga Taroo-ni ai-ni kita.
 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 argument 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.

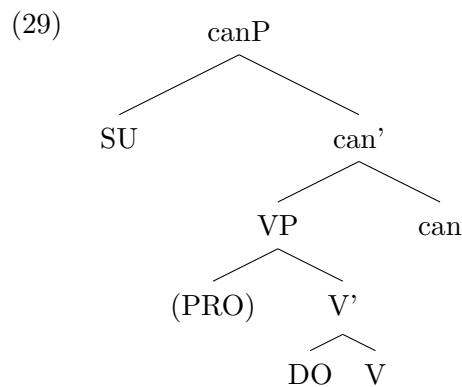
- (26) John-ga vodka-dake-o nom-e-ru.
 John-NOM vodka-only-ACC drink-can-PRS
 ‘John can drink only vodka.’

- (27) John-ga vodka-dake-ga nom-e-ru.
 John-NOM vodka-only-NOM drink-can-PRS
 ‘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 outscope ‘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.⁸



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 Wurmbbrand (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).
(EXCLAMATION/COMP think)
‘(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 object 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.

- (31) a. John-ga vodka-dake-ga nom-e-ru.
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’.⁹ Thus, argument ellipsis of nominative objects forces the object to take scope in situ.

- (32) John-ga vodka-dake-ga nom-e-ru.
 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”.¹⁰

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

⁹Due to Scopal Parallelism, the antecedent in (31-a) obligatorily takes scope under ‘can’, as well

¹⁰Funakoshi (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 every
 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 issta.
 respect AUX
 ‘Chelswu respects most teachers.’
- b. Yengmi-to ____ conkyenghako issta
 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.

- (35) a. John-i ppali tali-ko Mary-to tali-nta.
 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

= (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.

- (37) a. Jerry-nun [caki-uy ai]-lul phal-ul ttayli-ess-ta.
 Jerry-TOP [self-GEN child]-ACC arm-ACC hit-PST-IND
 ‘Jerry_i hit his_i child on the arm.’
 b. Kulena Sally-nun ___ tali-lul ttayli-ess-ta.
 but Sally-TOP ___ leg-ACC hit-PST-IND
 ‘But Sally_j hit her_j 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_i [_{VP} [caki-uy ai]-lul t_i t_V] ttayli-ess-ta
 (39) *Kulena Sally-nun tali-lul [caki-uy ai]-lul ttayli-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
 issta.
 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) [~~Taytaswu-uy haksayng-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., $\langle \alpha \text{NOP} \rangle$) 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) a. Gurwan ilbechin Bat-tai uulzah-aar ir-sen.
 three witch Bat-POSS come-INST see-PFV
 'Three witches came to see Bat.'
 b. ___ Oyuna-tai ch uulzah-aar ir-sen.
 ___ Oyuna-POSS also come-INST see-PFV
 'Three (possibly different) witches also came to see Oyuna.'
 (Sakamoto, 2012, p. 44)

- (45) a. Goran sorogqi Yaponhei-gi qidana.
 Three student Japanese-ACC know
 'Three students know Japanese.'
 b. ___ Gitadhei-gi qidazhubaihu oqir bas medegdezhei.
 ___ Chinese-ACC know that also clear
 'That three (possibly different) students know Chinese
 is also clear.'
 (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
 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-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}
_{t_V]]] poRlo}

Having concluded that Bangla permits VVPE, consider (46-c) once again. Note that the impossibility of the (b)-reading indicates that the following sort of derivation is impossible.

(50) Raj-o [lekha-Ta]_i [_{VP} [~~du ghOnTa dhore~~] [_{V'} t_i t_V]] 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 contrastive. 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 tv]]
 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.

- (55) 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.

- (56) 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)

- (57) 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.

- (58) *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 $\langle \text{NOP} \rangle$ 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.¹¹

- (59) a. $\text{Merge}(\text{DP}_{\langle -\text{NOP}, +\text{MAR} \rangle}, \text{CASE}_{\langle \alpha \text{NOP} \rangle}) \rightarrow$
 b. $[\text{CASEP DP}_{\langle -\text{NOP}, +\text{MAR} \rangle} \text{CASE}_{\langle -\text{NOP} \rangle}]$

- (60) a. $\text{Merge}(\text{DP}_{\langle +\text{NOP}, -\text{MAR} \rangle}, \text{CASE}_{\langle \alpha \text{NOP} \rangle}) \rightarrow$
 b. $[\text{CASEP DP}_{\langle +\text{NOP}, -\text{MAR} \rangle} \text{CASE}_{\langle +\text{NOP} \rangle}]$

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.¹²

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

¹¹The example in (59) represents merger with a dative subject. The example in (60) represents merger with a genitive subject.

¹²Indeed, in his article on diagnostics of ellipsis, Merchant (2013) concludes that sloppy readings are not a diagnostic for ellipsis.

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 tataiteru yo.
 Hanako-also ___ often hit PRT
 ‘Hanako_i also often hits her_i 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
 three-CLITIC priests Abhik-GEN with meet
 korte elo.
 do.INF come.PST.3
 ‘Three priests came to see Abhik.’
 b. Arun-er sathe-o ___ dEkha korte elo.
 Arun-GEN with-also ___ meet do.INF come.PST.3
 = (a) ‘They, the same three priests, came to see Arun,
 too.’
 ≠ (b) ‘Three (possibly different) priests came to see
 Arun, too.’
 (Simpson, Choudhury, and Menon, 2013, p. 108)

- (63) a. Abhik bhabe [je Ek-jOn SOnnSi tar-SOnge
 Abhik think.PRS.3 [C one-CLITIC priest him-with
 DEkha korte eSeche].
 meet do.INF came.PST
 ‘Abhik believes that a priest came to see him.’

¹³For further evidence that null arguments that are not generated under ellipsis are capable of producing sloppy readings, see Hoji (1998, 2003).

¹⁴I 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 SOnnSi 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 [___ tar-SOnge-o DEkha korte eSeche
Arun [___ 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.M.SG
‘Ram read the new paper by Chomsky twice.’
b. Raj-ne-bhi parha.
Raj-ERG-also read.PST.M.SG
‘Raj also read the paper twice.’
c. Raj-ne-bhi vo lekh parha.
Raj-ERG-also that writing read.PST.M.SG
= (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]_i [_{VP} t_i [_V [~~do baar~~] t_V]] 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.

- (67) a. Amit-ne apni premika-ko ek kitaab di.
 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.¹⁵ 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.

¹⁵For 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
 linguistics-GEN three professor Gita-ACC
 bahut pasand karte hai.
 very like do-PRS.3 COP.PRS
 ‘Three professors from the Linguistics Department like Gita very much.’
 b. ___ Sunita-ko-bhi 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 pasand hai.
 Raj like.PRS COP.PRS.3
 ‘Ram_k thinks his_k daughter likes Raj.’
 b. Ram-ka-bhai sochta hai ___
 Ram-GEN-brother think.PRS.M.SG.3 COP.PRS.3 ___
 Pratap pasand 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
 paRh rahi 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_m thinks his_i/_{*m} 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 *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 *uski* and does not allow a sloppy reading, with (74), which contains the possessive pronoun *apni* and does allow a sloppy reading.¹⁶

- (73) a. Amit-ne uski premika-ko ek kitaab di.
 Amit-ERG his 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_k/_{*m} 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_k gave a computer to his_k daughter.’
 b. Raj-ne ___ saikel diya.
 Raj-ERG ___ bicycle give.PST.M.SG
 ‘Raj_m gave his_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

¹⁶The obvious question that arises is whether (71) and (72) allow a sloppy reading with *uski* replaced *apni*. However, *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.

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. ACC = <-MAR, -NOP>
 b. NOM = <+TEP>

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.¹⁷

5.6 PERSIAN

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 *pro*_{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-RÂ 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-â-ro davat kard.
 Parviz also him/her-PL-RÂ invitation did.3SG
 'Parviz also invited them (i.e., the same three teachers).'
- (Sato and Karimi, 2016, p. 6)
- (77) Kimea mâshin-esh-o bâ deghghat shost, va Arezu
 Kimea car-her-RÂ 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.'

¹⁷For 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 *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 [_{CP} ke se-tâ dâneshtu mi-tun-an
Kimea said C three-CLITIC student ASP-can-3PL
ingilisi harf be-zan-an].
English talk SBJV-hit-3PL
‘Kimea said that three students can speak English.’
- b. Parviz goft [_{CP} ke ___ mi-tun-an farânse harf
Parviz said C ___ ASP-can-3PL French talk
be-zan-an].
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 [_{CP} ke unâ mi-tun-an farânse harf
Parviz said C they ASP-can-3PL French talk
be-zan-an].
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

¹⁸Note 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 hızla çözdü.
John problem-ACC quickly solve-PST
‘John solved the problem quickly.’
- b. Filiz-se ___ çözme-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-dı.
John three burglars catch-PST
‘John caught three burglars.’

- b. Filiz-se _____ sorgula-di.
 Phylis-however _____ interrogate-PST
 = (a) ‘However, Phylis interrogated them (i.e., the three burglars John caught).’
 = (b) ‘However, Phylis interrogated three (possibly different) 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-ım.
 (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 gül-üyor-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-ıyor.
 think-PRS
 ‘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 observations: 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-di.
 three teacher John-ACC criticize-PST
 ‘Three teachers criticized John.’
 b. ___ Filiz-i-yse öv-dü.
 ___ Phylis-ACC-however praise-PST
 = (a) ‘However, they (i.e., the three teachers who criticized John) criticized Phylis.’
 ≠ (b) ‘However, three (possibly different) teachers criticized Phylis.’
 (Şener and D. Takahashi, 2010, p. 91)

- (87) a. Can [*pro* oğl-u] İngilizce öğren-iyor diye bil-iyor.
 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
 bil-iyor.
 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-ince
 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-ince
 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.

- (89) a. Pelin [*pro* yeğen-i]-ni lise-ye başla-yacak
 Pelin her niece-3SG-ACC high.school-DAT start-FUT
 san-ıyor.
 think-PRS
 ‘Pelin thinks her niece will start high school.’
- b. Suzan-se ___ ilkokul-a başla-yacak
 Suzan-however ___ grade.school-DAT start-FUT
 san-ıyor.
 think-PRS
 ‘However, Suzan thinks Suzan’s niece will start high school.’

(Şener and D. Takahashi, 2010, p. 96)

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

¹With 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.² 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 SIs 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 Guillot 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.³ 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.

- (1) a. Which paper that he₁ gave to Bresnan₂ did every student₁ think *t'* that she₂ would like *t*?
 b. *Which paper that he₁ gave to Bresnan₂ did she₂ think *t'* that every student₁ would like *t*? (Lebeaux, 1991)

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)

- (7) a. *John did not know that he was being followed. But that his phone was being tapped, he had a belief.
 b. *John's phone was being tapped? Yeah, I had a belief.
 (Moulton, 2013)

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.

- (8) It was clear that something bad was going to happen ...
 a. ... but that he₁ was in real danger, no banker₁ had any clue.
 b. ... but that he₁ was in real danger, every SEC member₁ was unaware.
 c. ... but that her₁ company was in real danger, many CEOs₁ had no idea.
 (Moulton, 2013)

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.

- (9) a. ... But that he₁ might be too old for Ms. Brown₂, I don't think any man₁ would want her₂ to believe.
 b. ... But that he₁ might be too old for Ms. Brown₂, I don't think she₂ would want any man₁ to believe.
 (Moulton, 2013)

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).

- (10) a. [XP ... pronoun₁ ... r-expression₂] ... QP₁ ... ___XP ...
 pronoun₂ ... ___*XP ...
 b. [XP ... pronoun₁ ... r-expression₂] ... pronoun₂ ... ___*XP ...
 ... QP₁ ... ___*XP ...
 (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).⁵ 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 Guillot 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
 which picture of his Q that you REFL ask if
 chaque homme₁ l-a déchirée?
 each man it-has torn
 ‘Which picture of his₁ do you wonder whether each man₁
 has torn it?’ (Guillot and Malkawi, 2012)
- (12) Mae gan Siôn farn ar ei₁ lyfr y mae pob
 is with Siôn opinion about his book COMP is each
 awdur₁ yn ei pharchu.
 author PROG it respect
 ‘Siôn has an opinion about his₁ book that each author₁ re-
 spects it.’ (Rouveret, 2008)

However, the resumption-chains do not give rise to reconstruction conflicts.

- (13) a. Quel résumé qu’il₁ a donné à Hamida₂ est-ce
 which abstract that.he has given to Hamida Q
 que chaque étudiant₁ se demande si elle₂ va le
 that each student REFL asks if she goes it
 corriger?
 amend

⁵I 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 REFL 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 gŵyr 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 gŵyr 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 A'-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.

struction, 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.⁷ 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.⁸ 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

⁷For 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).

⁸The 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. [təlmiiz-a₁ SSitaan] bta9rfo 7ənno kəll
 [student-her the.naughty].M know.2PL that every
 m9allme₁ 7aaʃʃ-o.
 teacher.F punished-him
 ‘[Her₁ naughty student], you know that every teacher₁
 punished him.’ (Aoun and Benmamoun, 1998)
- b. ‘eft [SSura taba9 əbn-a₁] yalli 7əlto
 saw.1SG [the.picture of son-her] that said.2PL
 7ənno kəll mwazzafe₁ badda 9allə7-a bi-maktab-a.
 that every employee.F want hang-it in-office-her
 ‘I saw [the picture of her₁ son] that you said that every
 employee₁ 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. *[təlmiiz-a₁ SSitaan] fallayto 7ablma kəll
 [student-her the-naughty].M left.2PL before every
 m9allme₁ t7aaʃʃ-o.
 teacher.F punished-him

¹⁰Note the following conventions.

- (i) a. 7 = glottal stop
 b. 9 = voiced pharyngeal fricative
 c. S = voiceless palato-alveolar fricative
 d. h' = voiceless pharyngeal fricative
 e. h" = voiced glottal fricative

‘[Her₁ naughty student], you left before every teacher₁ punished him.’

(Aoun and Benmamoun, 1998)

- b. *‘eft [SSuura taba9 7əbn-a₁] yalli z9əlto
saw.1SG [the-picture of son-her] that upset.2PL
la7anno kəll mwazzafe₁ badda t9allə7-a
because every employee.F want hang-it
bi-l-maktab.
in-the-office.
‘I saw [the picture of her₁ son] that you were upset because every employee₁ wants to hang it in the office.’

(Aoun, 2000)

- c. *‘eft [SSuura taba9 7əbn-a₁] yalli ‘triito
saw.1SG [the-picture of son-her] that bought.2PL
l-kadr yalli kəll mwazzafe₁ h”attət-a fi-i.
the-frame that every employee.F put-it in-it
‘I saw [the picture of her₁ son] that you bought the frame that every employee₁ put it in.’

(Aoun, 2000)

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.)¹¹

(17) (Single-Individual Reading, Pair-List Reading)

A quién dijo María que cada testigo le
 DOM whom said Maria that each witness 3SG.DAT
 quería pegar?
 wanted to.hit
 ‘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
 DOM which car thinks Pedro that [of each
 mecánico reparar-le algo], iremos a NY?
 mechanic fix-3SGDAT something], will.go.1.PL to 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

DOM which dictator think.2SG that [of the court
 enjuiciar ____] saldría en primera plana?
 prosecute ____] come.out on first page
 ‘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

¹¹The abbreviation DOM stands for ‘differential object marker’. See Dalrymple and Nikolaeva (2011), for a general discussion of differential object marking, and Torrego (1998) and López (2012) for a discussion of differential object marking in Spanish.

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 sa₁ classe, chaque prof₁ l-a
the picture of his class, each teacher it-has
déchirée.
torn
'The picture of his₁ class, each teacher₁ has torn it.'
- b. ?Quelle photo de lui₁ est-ce que tu te demandes
which picture of his Q that you REFL ask
si chaque homme₁ l'a déchirée?
if each man it-has torn
'Which picture of his₁ do you wonder whether each
man₁ has torn it?' (Guilliot and Malkawi, 2012)
- (21) a. talib-ha₁ l-kassoul ma baddna nxabbir wala
student-her the-bad NEG want.1PL tell.1PL no
mçallmih₁ 7innu-uh zaçbar b-l-fah'is.
teacher that-he cheated in-the-exam
'Her₁ bad student, we don't want to tell any teacher₁
that he cheated on the exam.'
- b. 7aya Surrah l-abin-ha₁ kul marah₁ mazaçat-ha?
which picture of-son-her every woman tore-it
'Which picture of her₁ son did every woman₁ tear it?'
(Guilliot and Malkawi, 2012)
- (22) La photo de sa₁ classe, tu es fâché parce que
the picture of his class, you are furious because that
chaque prof₁ l-a déchirée.
each teacher it-has torn
'The picture of his₁ class, you are furious because each teacher₁
tore it.' (Guilliot and Malkawi, 2012)
- (23) a. talib-ha₁ l-kassoul ma ziçlat wala mçallhih₁
student-her the-bad NEG upset no teacher
li7annu l-mudiirah kah'Sat-uh mn l-madrased.
because the-principal expelled-him from the-school
'Her₁ bad student, no teacher₁ was upset because the
principal expelled him from school.'
- b. 7aya Surrah l-abin-ha₁ Karim ziçil li7annu kul
which picture of-son-her Karim upset because every
marah₁ mazaçat-ha?
woman tore-it

‘Which picture of her₁ son was Karim upset because every woman₁ 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 allows 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.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’il₁ a donné à Hamida₂ est-ce
 which abstract that.he has given to Hamida Q
 que chaque étudiant₁ se demande si elle₂ va le
 that each student REFL asks if she goes it
 corriger
 amend?
 ‘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
 that-she REFL 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)

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.

¹²It 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
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 pro-
fessors 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 sentences 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 sentences, 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_{wh} disse que vai falar sobre
 which professor COMP t_{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

¹³The 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 Profes-
sor Silva talks about it?'
 - b. eize roman ata tece lifnei 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 Profes-
sor 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 stu-
 dents 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 Profes-
 sor 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 Profes-
 sor 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 stu-
 dents 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 stu-
 dents 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 Lebanese 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 pro-
 fessors 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—either 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.¹⁴

- (40) a. Qual professor que t_{wh} disse que vai falar sobre
which professor COMP t_{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 e-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?'

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.

¹⁴Note 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.

- (41) 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?’

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. 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. 5 speakers —
RECONSTRUCTION IN (36-b): NO
RECONSTRUCTION IN (37-b): NO

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.¹⁵

(44) 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 pro-
fessors will talk about it?'

(45) 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?'

¹⁵Note 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'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?'

(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 analyse ____?
Professor Silva analyzes.SBJV ____
'Which poem will you leave (the lecture) before Profes-
sor 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 Profes-
 sor Arazi analyzes ___?’

(51) 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 stu-
 dents 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 stu-
 dents who bet that Professor Arazi will analyze ___?’

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-

¹⁶Note 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 João₂]₁ vendeu a foto de si_{1/*2}
 [the father of.the João] sold the picture of SI
 mesmo.
 EMPHATIC
 ‘[The father of João₂]₁ sold the picture of himself_{1/*2}.’
- b. [O homem que falou com João₂]₁ vendeu a
 [the man that spoke with João] sold the
 foto de si_{1/*2} mesmo.
 picture of SI EMPHATIC
 ‘[The man who spoke with João₂]₁ sold the picture of
 himself_{1/*2}.’
- (54) */?A campanha do João₁ exige que as fotos de
 the campaign of.the João requires that the pictures of
 si₁ mesmo sejam colocadas por toda a cidade.
 SI EMPHATIC be placed about all the town
 ‘João₁’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 si₁ mesmo na primeira página do
 the picture of SI EMPHATIC on.the first page of.the
Estado fez as reclamações do João₁ parecerem
Estado made the complaints of.the João₁ seem
 meio ridículas.
 rather ridiculous
 ‘The picture of himself₁ on the front page of the *Estado* made
 João₁’s complaints seem rather ridiculous.’
- (56) */?O João₁ estava furioso. A foto de si₁ mesmo
 the João was furious. the picture of SI EMPHATIC
 tinha sido destruída.
 had been destroyed
 ‘João₁ was furious. The picture of himself₁ had been de-
 stroyed.’
- (57) a. *O João₁ falou que o Pedro publicou uma foto
 the João said that the Pedro published a picture
 de si₁ mesmo.
 of SI EMPHATIC
 ‘João₁ said that Pedro published a picture of himself₁.’
 b. *O João₁ falou que o *Estado* publicou uma
 the João said that the *Estado* published a
 foto de si₁ mesmo.
 picture of SI EMPHATIC
 ‘João₁ said that the *Estado* published a picture of himself₁.’

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 licensing of non-local, non-c-commanding antecedents, I conclude that *si mesmo* must always take a local, c-commanding antecedent.

- (58) John₁’s campaign requires that pictures of himself₁ be placed
 all over town.
 (Pollard and Sag, 1992, citing in Lebeaux, 1984)
- (59) The picture of herself₁ on the front page of the *Times* made
 Mary₁’s claim seem somewhat ridiculous.
 (Pollard and Sag, 1992)
- (60) John₁ was furious. The picture of himself₁ in the museum
 had been mutilated.
 (Pollard and Sag, 1992)
- (61) a. *Bill₁ remembered that Tom saw a picture of himself₁ in
 the post office.

- b. ?Bill₁ remembered that the *Times* had printed a picture of himself₁ 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.)¹⁸

- (62) a. Qual/que foto de si₁ mesmo (que) o
which/what picture of SI EMPHATIC (COMP) the
João₁ vendeu ___ pra agência?
João sold ___ to.the agency
'Which picture of himself₁ did João₁ sell ___ to the agency?'
- b. Qual/que foto de si₁ mesmo (que) você
which/what picture of SI EMPHATIC (COMP) you
acha que o João₁ vendeu ___ pra agência?
think that the João sold ___ to.the agency
'Which picture of himself₁ do you think that João₁ sold ___ to the agency?'
- (63) a. *Qual/que foto de si₁ mesmo (que) você
which/what picture of SI EMPHATIC (COMP) you
vai sair antes que o João₁ venda ___ pra
will leave before that the João sell.SBJV ___ to.the
agência?
agency
'Which picture of himself₁ will you leave before João₁ sells ___ to the agency?'
- b. *Qual/que foto de si₁ 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 João₁ vendesse ___ pra agência?
the João sell.SBJV.PST ___ to.the agency
'Which picture of himself₁ did you get mad at the boss who wanted João₁ to sell ___ to the agency?'

¹⁸For reasons that are not clear to me, one of the two speakers whose judgments are reported above rejected (i). For this speaker, it would seem that reconstruction must target the base of the chain, a conclusion that merits further investigation.

- (i) Qual/que foto de si₁ mesmo (que) o João₁ 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 himself₁ does João₁ think that you sold ___ to the agency?'

- (64) a. Qual/que foto do João₁ mesmo (que) você
 which/what picture of João EMPHATIC (COMP) you
 vai sair antes que ele₁ venda ___ pra
 will leave before that he sell.SBJV ___ to.the
 agência?
 agency
 ‘Which picture of João₁ will you leave before he₁ sells
 ___ to the agency?’
- b. Qual/que foto de João₁ mesmo (que) você
 which/what picture of João EMPHATIC (COMP) you
 ficou bravo com o empresário que queria que
 became mad with the boss that wanted that
 ele₁ vendesse ___ pra agência?
 he sell.SBJV.PST ___ to.the agency
 ‘Which picture of João₁ did you get mad at the boss
 who wanted him₁ to sell ___ to the agency?’¹⁹

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.²⁰ 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.²¹ The judgements below thus provide a further example of

¹⁹One 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.

²⁰These 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.

²¹Negrão (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)

Qual poema que cada um dos professores vai
 which poem COMP each one of.the professors will
 analisar ___?
 analyze ___
 ‘Which poem will each of the professors analyze ___?’

(66) (Single-Individual Reading, Pair-List Reading)

- a. Qual poema que a Maria disse que cada um
 which poem COMP the Maria said that each one
 dos professores vai analisar ___?
 of.the professors will analyze ___
 ‘Which poem did Maria say that each of the professors
 will analyze ___?’
- b. Qual poema que cada um dos professores disse
 which poem COMP each one of.the professors said
 que a Maria vai analisar ___?
 that the Maria will analyze ___
 ‘Which poem did each of the professors say that Maria
 will analyze ___?’

- (67) a. *Qual poema que você vai sair antes que cada
 which poem COMP you will leave before that each
 um dos professores analise ___?
 one of.the professors analyze.SBJV ___
 ‘Which poem will you leave before each of the professors
 analyzes ___?’
- b. *Qual poema que você vai sair antes de cada um
 which poem COMP you will leave before of each one
 dos professores analisar ___?
 of.the professors analyze.INF ___
 ‘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
 which poem COMP you will leave before that the
 professora analise ____?
 professor analyze.SBJV ____
 ‘Which poem will you leave before the professor ana-
 lyzes ____?’
- b. Qual poema que você vai sair antes da
 which poem COMP you will leave before of.the
 professora analisar ____?
 professor analyze.INF ____
 ‘Which poem will you leave before the professor ana-
 lyzes ____?’

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 professor 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?’

- (71) [Qual dos idiomas que a professora₁ sabe
[which of.the languages that the professor₁ knows
falar] que você ficou bravo [depois que cada um
to.speak] COMP you became mad [after that each one
dos alunos pediu que ela₁ ensinasse ___ no
of.the students requested that she₁ teach ___ in.the
semestre que vem]?
semester that comes]
‘[Which of the languages that the professor₁ knows how to
speak] did you get mad [after that each of the students asked that
she₁ teach ___ next semester]?’
- (72) [Qual dos idiomas que a professora₁ sabe
[which of.the languages that the professor₁ knows
falar] que você ficou bravo [depois que ela₁
to.speak] COMP you became mad [after that she₁
pediu que cada um dos alunos estudasse ___
requested that each one of.the students study ___
no semestre que vem]?
in.the semester that comes]
‘[Which of the languages that the professor₁ knows how to
speak] did you get mad [after she₁ requested 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.²² 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.²³

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

²²See Schneider-Zioga (2009), who argues that movement in Kinande is clause-bounded.

²³Unfortunately, I could not produce supporting evidence from Hebrew, as the three speakers I consulted rejected SI-crossing wh-gap chains.

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.²⁴

- (73) a. O que que você quer que a professora
 the what COMP you want that the professor
 analyse (*ele)?
 analyze.SBJV (*it)
 ‘What do you want the professor to analyze ___/it?’
- b. *O que que os alunos vão embora antes
 the what COMP the students will.go out after
 que a professora analyse (ele)?
 that the professor analyze.SBJV (it)
 ‘What will the students leave after the professor ana-
 lyzes ___/it?’

By contrast, D-linked wh-phrases may head resumption-chains, and, as already noted, may also head SI-crossing wh-chains.

- (74) Qual filme chato que os alunos vão embora
 which film annoying COMP the students will.go out
 antes que a professora analyse (ele)?
 before that the professor analyzes.SBJV (it)
 ‘Which annoying film will the students leave before the pro-
 fessor analyzes ___/it?’

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.²⁵

²⁴The following judgements were provided by two speakers.

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 A²-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.²⁶ 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-

²⁶Of particular relevance to the assessment of Boeckx's (2003) proposal are the data of speakers for whom resumption is non-intrusive.

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_i kunne ikke holde ut guttene sine_{i/*j}.
Leif could NEG hold out boys his
- b. Leif_i kunne ikke holde ut guttene hans_{*i/j}.
Leif could NEG hold out boys his
'Leif couldn't stand his boys.'

(76) Swedish

- a. Leif_i tålde inte sina_{i/*j} pojkar.
Leif tolerate NEG his boys
- b. Leif_i tålde inte hans_{*i/j} pojkar.
Leif tolerate NEG his boys
'Leif couldn't tolerate his boys.'

(77) Norwegian

- a. Lars_i sa at Leif_j ikke kunne holde ut guttene
Lars said that Leif NEG could hold out boys
sine_{*i/j}.
his
- b. Lars_i sa at Leif_j ikke kunne holde ut guttene
Lars said that Leif NEG could hold out boys
hans_{i/*j}.
his
'Lars said that Leif couldn't stand his boys.'

(78) Swedish

- a. Lars_i sa att Leif_j inte tålde sina_{*i/j} pojkar.
Lars said that Leif NEG tolerate his boys
- b. Lars_i sa att Leif_j inte tålde hans_{i/*j} pojkar.
Lars said that Leif NEG tolerate his boys
'Lars said that Leif couldn't tolerate his boys.'

(79) Norwegian

- a. [Einar_i sin venn]_j kunne ikke holde ut guttene
Einar POSS friend could NEG hold out boys
sine_{*i/j}.
his
- b. [Einar_i sin venn]_j kunne ikke holde ut guttene
Einar POSS friend could NEG hold out boys
hans_{i/*j}.
his
'Einar's friend couldn't stand his boys.'

(80) Swedish

- a. [Svens_i vän]_j tålde inte sina_{*i/j} pojkar.
Sven's friend tolerate NEG his boys
- b. [Svens_i vän]_j tålde inte hans_{i/*j} pojkar.
Sven's friend tolerate NEG his boys
'Svens friend could not tolerate his boys.'

The sentences in (81)-(84) provide further support for the conclusion that *sine* and *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.²⁷

(81) Norwegian

- a. *[Leif_i sin kampanje]_j krever at bildene sine_i
Leif POSS campaign requires that pictures his
plasseres over hele byen.
placed over all city
- b. [Leif_i sin kampanje]_j krever at bildene hans_i
Leif POSS campaign requires that pictures his
plasseres over hele byen.
placed over all city

²⁷Note that *sine* and *sina* agree in number with the possessum. When the possessum is plural, the pronoun's form is *sine* and *sina*. When the possessum is singular (as it is in (83-a) and (84-a)), the pronoun's form is *sitt* (in Norwegian) and *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 *hans*.

‘Leif’s campaign requires that his pictures be placed all over town.’

(82) Swedish

- a. ??[Leifs_i kampagn]_j kraver att sina_i bilder blir
Leif’s campaign requires that his pictures be
placerade over hela staden.
placed over all town
- b. [Leifs_i kampagn]_j kraver att hans_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_i på forsiden av Aftenposten fikk Leif_i
picture his on front of Aftenposten made Leif
sine klager til å virke heller latterlige.
POSS complaints seem rather ridiculous
- b. Bildet hans_i på forsiden av Aftenposten fikk Leif_i
picture his on front of Aftenposten made Leif
sine klager til å virke heller latterlige.
POSS complaints seem rather ridiculous
‘His picture on the front of the Aftenposten made Leif’s complaints seem rather ridiculous.’

(84) Swedish

- a. *Sin_i bild på forstasidan av aftonbladet fick Leifs_i
his picture on front of aftonbladet made Leif’s
klagomål att verka ganska lojliga.
complaint to seem quite ridiculous
- b. Hans_i bild på forstasidan av aftonbladet fick
his picture on front of aftonbladet made
Leifs_i klagomål att verka ganska lojliga.
Leif’s complaint to seem quite ridiculous
‘His picture on the front of the Aftonbladet 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 en gang at Kong Ulrik_i ikke
 a historian said once that King Ulrik NEG
 kunne holde ut guttene sine_i.
 could hold out boys his
 ‘A historian once said that King Ulrik_i couldn’t stand
 his_i boys.’
- b. Nei, du tar feil. Jentene sine_i sa en historiker
 no, you’re wrong. girls his said a historian
 en gang at kongen_i ikke kunne holde ut ____.
 once that king.DEF NEG could hold out ____
 ‘No, you’re wrong. His_i girls, a historian once said that
 the king_i couldn’t stand.’

(86) Swedish

- a. En historiker sa att kung Ulrik_i inte kunde stå
 a historian said that king Ulrik NEG could stand
 ut med sina_i pojkar.
 out with his boys
 ‘A historian said that King Ulrik_i couldn’t stand his_i
 boys.’
- b. Nej, det är fel. Sina_i flickor sa en historiker att
 no, it is wrong. his girls said a historian that
 kungen_i inte kunde stå ut med.
 king.DEF NEG could stand out with
 ‘No, that’s wrong. His_i girls, a historian said that King
 Ulrik_i couldn’t stand.’

(87) Norwegian

- a. Det var en gang en historiker som sa at Kong
 there was once a historian that said that King
 Ulrik_i ikke kunne holde ut guttene sine_i ____.
 Ulrik NEG could hold out girls his ____
 ‘There once was a historian that said that King Ulrik_i
 couldn’t stand his_i boys.’
- b. Nei, du tar feil. Jentene sine_i var det en gang [en
 no, you’re wrong. girls his was there once a
 historiker som sa at kongen_i ikke kunne holde
 historian that said that king.DEF NEG could hold
 ut ____].
 out ____
 ‘No, you’re wrong. His_i girls, there once was a historian
 that said that the king_i couldn’t stand.’

(88) Swedish

- a. Det fanns en gång i tiden en historiker som sa
 there was once in time a historian that said
 att kung Ulrik_i inte kunde stå ut med sina_i
 that king Ulrik NEG could stand out with his
 pojkar.
 boys

‘There was a historian that once said that King Ulrik_i couldn’t stand his_i boys.’

- b. Nej, det är fel. Sina_i flickor fanns det en gång
no, it is wrong. his_i girls was there once
[en historiker som sa att kungen_i inte kunde
a historian that said that king.DEF NEG could
stå ut med ____].
stand out with
‘No, that’s wrong. His_i girls, there once was a historian
that said that the king_i 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 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 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.²⁹ 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.³⁰

²⁹This speaker judged (94). As for (92) and (93), the speaker did not judge these examples, but rather the following two examples, accepting scope reconstruction 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 ____.
Swede memorize ____
'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), *hver gutt* c-commands the pronoun *henne*. This sentence permits a reading in which both of the following obtain: *han* is bound by *hver gutt*; *Anna* and *henne* co-refer. In (96), by contrast, *hver gutt* is c-commanded by the pronoun (which, in this sentence, is *hun*, not *henne*). This sentence does not permit a reading in which bound variable anaphora and co-reference both obtain.³³

(95) Norwegian

- a. [Påstanden om at han elsker Anna]_i ba hver
claim.DEF about that he loves Anna asked each
gutt henne om å ignorere ____i.
boy her about to ignore ___
'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.

(96) Norwegian

- a. [Påstanden om at han elsker Anna]_i ba hun
claim.DEF about that he loves Anna asked she
hver gutt om å avvise ____i.
each boy about to reject ___
'The claim that he loves Anna, she asked each boy to
reject.'
- b. ≠ For each boy, x, Anna asked x to reject the claim that
x loves Anna.

Thus, the availability of a reading in which both binding and co-reference obtain is sensitive to the relative positioning of the quantifier *hver gutt* and the pronoun *henne/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.

³¹An 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.

³²The 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.

³³Specifically, 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.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 to 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

- a. [Påstanden om at han elsker Anna]_i ba hun
 claim.DEF about that he loves Anna asked she
 Leif om å avvise _____i.
 Leif about to reject ____

³⁴Recall 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_j loves Anna_k, she_k asked Leif_j to reject.’
- b. [Påstanden om at han elsker Anna]_i ba Leif
claim.DEF about that he loves Anna asked Leif
henne om å ignorere _____i.
her about to ignore ____
‘The claim that he_j loves Anna_k, Leif_j asked her_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 *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 *henne*. This sentence permits a reading in which both binding and co-reference obtain.³⁵ In (99), the pronoun *hun* c-commands the quantifier, and such a reading is not possible.³⁶

(98) Norwegian

- a. [Påstanden om at han elsker Anna]_i vil en
claim.DEF about that he loves Anna wants a
lærer at hver gutt skal be henne om å
teacher that each boy will ask her about to
ignorere _____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

³⁵It should be noted, though, that there is preference to interpret *han* as referring to the teacher.

³⁶Specifically, (99) permits *Anna* and *hun* to co-refer, but it does not permit the quantifier to bind *han*.

- a. [Påstanden om at han elsker Anna]_i vil en
claim.DEF about that he loves Anna wants a
lærer at hun skal be hver gutt om å avise
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]_i 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.'

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]_i 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]_i 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 ____i].
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).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.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]_i bad var och
claim.DEF that he loves Anna asked each and
en av pojkarna henne ignorera _____i.
one of boys.DEF her ignore ____
'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]_i bad hon var
claim.DEF that he loves Anna asked she each
och en av pojkarna förkasta _____i.
and one of boys.DEF reject ____
'The claim that he loves Anna, she asked each boy to
reject.'

³⁸In 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.

³⁹The 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 *han* is bound by the quantifier and *Anna* and *henne* co-refer. Although *Anna* and *henne* can co-refer, *han* must refer to the teacher. Note, however, that the relevant reading becomes possible (though still somewhat difficult) in (105-c), in which *en lärare* ‘a teacher’ has been replaced with *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 *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 han älskar Anna]_i 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. ≠ 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 han älskar Anna]_i vill
claim.DEF that he loves Anna wants
lärarna att var och en av pojkarna ska be
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 han älskar Anna]_i vill en lärare
claim.DEF that he loves Anna wants a teacher
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 claim.DEF that he loves Anna is there a lärare som vill att var och en av pojkarna teacher that wants that each and one of boys.DEF ska be henne ignorera ___]_i.
will ask her ignore ___
‘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 claim.DEF that he loves Anna is there a 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.DEF 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.

BIBLIOGRAPHY

- Ackema, Peter and Ad Neeleman (2004). *Beyond morphology: Interface conditions on word formation*. Oxford: Oxford University Press.
- Agüero-Bautista, Calixto (2001). “Cyclicity and the scope of wh-phrases.” PhD thesis. Massachusetts Institute of Technology.
- Allwood, Jens S. (1982). “The Complex NP Constraint in Swedish.” In: *Readings in unbounded dependencies in Scandinavian Languages*. Ed. by E. Engdahl and E. Ejerhed. Stockholm: Almqvist & Wiksell International, pp. 15–32.
- Aoun, Joseph (2000). “Resumption and Last Resort.” In: *D.E.L.T.A.* 16.Especial, pp. 13–43.
- Aoun, Joseph and Elabbas Benmamoun (1998). “Minimality, reconstruction, and PF movement.” In: *Linguistic Inquiry* 29.4, pp. 569–597.
- Aoun, Joseph, Lina Choueiri, and Norbert Hornstein (2001). “Resumption, movement, and derivational economy.” In: *Linguistic Inquiry* 32.3, pp. 371–403.
- Bobaljik, Jonathan D. and Susi Wurmbrand (2007). “Complex predicates, aspect, and anti-reconstruction.” In: *Journal of East Asian Linguistics* 16, pp. 27–42.
- Boeckx, Cedric (2003). *Islands and chains: Resumption as stranding*. Philadelphia: John Benjamins Publishing Company.
- Boeckx, Cedric and Norbert Hornstein (2008). “Superiority, reconstruction, and islands.” In: *Foundational issues in linguistic theory: Essays in honor of Jean-Roger Vergnaud*. Ed. by Robert Freidin, Carlos P. Otero, and Maria Luisa Zubizarreta. Vol. 45. Cambridge, MA: The MIT Press, pp. 197–225.
- Bošković, Željko (2008). “What will you have, DP or NP?” In: *NELS 37: Proceedings of the thirty-seventh annual meeting of the North England Linguistic Society*. Ed. by Emily Elfner and Martin Walkow. Vol. 1. GLSA, University of Massachusetts, pp. 101–114.

- Bošković, Željko (2009). “The NP/DP analysis and Slovenian.” In: *Proceeding of the University of Novi Sad Workshop on Generative Syntax 1*, pp. 53–73.
- (2012). “On NPs and clauses.” In: *Discourse and grammar: From sentence types to lexical categories*. Ed. by Günther Grewendorf and Thomas Ede Zimmermann. Boston/Berlin: Walter de Gruyter, Inc., pp. 179–245.
- (2016). “On clitic doubling and argument ellipsis: Argument ellipsis as predicate ellipsis (Version 3).” In: *Lingbuzz*.
- (2017). “On clitic doubling and argument ellipsis.” In: *Proceedings of the 34th West Coast Conference on Formal Linguistics*. Ed. by Aaron Kaplan, Abby Kaplan, Miranda K. McCarvel, and Edward J. Rubin. Somerville, MA: Cascadilla Proceedings Project, pp. 97–106.
- Bošković, Željko and Jairo Nunes (2007). “The copy theory of movement: A view from PF.” In: *The copy theory of movement*: ed. by Norbert Corver and Jairo Nunes. John Benjamins Publishing Company, pp. 13–74.
- Chang, Suk-Jin (1996). *Korean*. London Oriental and African Language Library. John Benjamins Publishing Company.
- Cheng, Hsu-Te (2013). “Argument ellipsis, classifier phrases, and the DP parameter.” PhD thesis. University of Connecticut.
- Chomsky, Noam (1972). “Some empirical issues in the theory of transformational grammar.” In: *The goals of linguistic theory*. Ed. by Stanley Peters. Englewood Cliffs, NJ: Prentice-Hall, pp. 63–130.
- (2000). “Minimalist inquiries: The framework.” In: *Step by step: Essays on minimalism in honor of Howard Lasnik*. Ed. by Roger Martin, David Michaels, and Juan Uriagereka. Cambridge, MA: MIT Press, pp. 89–155.
- (2001). “Derivation by Phase.” In: *Ken Hale: A life in language*. Ed. by Michael Kenstowicz. Cambridge, MA.: MIT Press, pp. 1–52.
- Chomsky, Noam and Morris Halle (1968). *The sound pattern of English*. New York: Harper & Row, Publishers.
- Cyrino, Sonia M. L. and Gabriela Matos (2002). “VP ellipsis in European and Brazilian Portuguese: A comparative analysis.” In: *Journal of Portuguese Linguistics* 1, pp. 177–195.

- Cyrino, Sonia Maria Lazzarini (1994). “O objeto nulo no português do Brasil: Um estudo sintático - diacrônico. [The null object in the Portuguese of Brazil. A syntactico - diachronic study].” PhD thesis. Universidade Estadual de Campinas.
- Cyrino, Sonia and Ruth Lopes (2016). “Null objects are ellipsis in Brazilian Portuguese.” In: *The Linguistic Review* 33.4, pp. 483–502.
- Dalrymple, Mary and Irina Nikolaeva (2011). *Objects and information structure*. 131. Cambridge: Cambridge University Press.
- Demirdache, Hamida (1991). “Resumptive chains in restrictive relatives, appositives and dislocation structures.” PhD thesis. Massachusetts Institute of Technology.
- Duguine, Maia (2014). “Argument ellipsis: a unitary approach to pro-drop.” In: *The Linguistic Review* 31.3-4, pp. 515–549.
- Engdahl, Elisabet (1997). “Relative clause extractions in context.” In: *Working Papers in Scandinavian Syntax* 60, pp. 51–79.
- Erteschik-Shir, Nomi (1997). *The dynamics of focus structure*. Cambridge: Cambridge University Press.
- Ferreira, Marcelo Barra (2000). “Argumentos nulos em português brasileiro [Null arguments in Brazilian Portuguese].” MA thesis. Universidade Estadual de Campinas.
- Fox, Danny (1999). “Reconstruction, binding theory, and the interpretation of chains.” In: *Linguistic Inquiry* 30.2, pp. 157–196.
- Funakoshi, Kenshi (2011). “Object drop in Japanese: Evidence for the VP-ellipsis analysis.” In: *The project of language and culture 2010: Theoretical approaches to natural language*. Graduate school of language and culture, Osaka University, pp. 61–70.
- (2014). “Syntactic head movement and its consequences.” PhD thesis. University of Maryland, College Park.
- (2016). “Verb-stranding verb phrase ellipsis in Japanese.” In: *Journal of East Asian Linguistics* 25, pp. 113–142.
- Gribanova, Vera (2016). “On head movement and the verbal identity condition in ellipsis.” Handout from the Comparative Syntax Meeting, Universiteit Leiden, December 14, 2016.
- Grimshaw, Jane (1982). “Subcategorization and grammatical relations.” In: *Subjects and other subjects: Proceedings of the Harvard Conference on the Representation of Grammatical Rela-*

- tions*. Ed. by Annie Zaenen. Bloomington, IN: Indiana University Linguistics Club.
- Grolla, Elaine (2005). “Pronomes resumptivos em português brasileiro adulto e infantil [Resumptive pronouns in Adult and Child Brazilian Portuguese].” In: *D.E.L.T.A.* 21.2, pp. 167–182.
- Guilliot, Nicolas and Nouman Malkawi (2009). “When movement fails to reconstruct.” In: *Merging features: Computation, interpretation and acquisition*. Ed. by José M. Brucart, Anna Gavarró, and Jaume Solà. Oxford: Oxford University Press, pp. 159–174.
- (2012). *On covariation & competition: How resumptives distribute and covary*. Handout from the Resumptive Pronouns Workshop.
- Hagstrom, Paul (1998). “Decomposing questions.” PhD thesis. Massachusetts Institute of Technology.
- Harada, S. I. (1973). “Counter equi NP deletion.” In: *Annual Bulletin* 7, pp. 113–147.
- Heim, Irene and Angelika Kratzer (1998). *Semantics in generative grammar*. Malden, MA.: Blackwell Publishers.
- Heinat, Fredrik and Anna-Lena Wiklund (2015). “Scandinavian relative clause extractions.” In: *Working Papers in Scandinavian Syntax* 94, pp. 36–50.
- Hoji, Hajime (1998). “Null object and sloppy identity in Japanese.” In: *Linguistic Inquiry* 29.1, pp. 127–152.
- (2003). “Surface and deep anaphora, sloppy identity, and experiments in syntax.” In: *Anaphora: A reference guide*. Ed. by Andrew Barss. Malden, Massachusetts: Blackwell Publishing, pp. 172–236.
- Huang, C.-T. James (1982). “Logical relations in Chinese and the theory of grammar.” PhD thesis. Massachusetts Institute of Technology.
- (1984). “On the distribution and reference of empty pronouns.” In: *Linguistic Inquiry* 15.4, pp. 531–574.
- Janhunen, Juha A. (2012). *Mongolian*. London Oriental and African Language Library. John Benjamins Publishing Company.
- Kasai, Hironobu (2014). “On the nature of null clausal complements in Japanese.” In: *Syntax* 17, pp. 168–188.

- Kikuchi, Akira and Daiko Takahashi (1991). "Agreement and small clauses." In: *Topics in small clauses*. Ed. by Heizo Nakajima and Shigeo Tonoike. Tokyo: Kuroshio Shuppan, pp. 75–105.
- Kim, Soowon (1999). "Sloppy/strict identity, empty objects, and NP ellipsis." In: *Journal of East Asian Linguistics* 8.4, pp. 255–284.
- Koizumi, Masatoshi (1995). "Phrase structure in minimalist syntax." PhD thesis. MIT.
- Kornfilt, Jaklin (2001). "Functional projections and their subjects in Turkish clauses." In: *The verb in Turkish*. Ed. by Eser Erguvanlı Taylan. John Benjamins Publishing Company, pp. 183–212.
- Lasnik, Howard (1995). "A note on pseudogapping." In: *MIT Working Papers in Linguistics* 27, pp. 143–163.
- (1999). "On feature strength: Three minimalist approaches to overt movement." In: *Linguistic Inquiry* 30.2, pp. 197–217.
- (2001). "When can you save a structure by destroying it?" In: *Proceedings of the North East Linguistic Society*. Ed. by Minjoo Kim and Uri Strauss. Vol. 31. Georgetown University: GLSA, pp. 301–320.
- Lebeaux, David (1984). "Locality and anaphoric binding." In: *The Linguistic Review* 4.4, pp. 343–363.
- (1991). "Relative clauses, licensing and the nature of the derivation." In: *Syntax and Semantics 25: Perspectives on phrase structure*. Ed. by Susan Rothstein. New York: Academic Press, pp. 209–239.
- Li, Hui-Ju Grace (2002). "Ellipsis constructions in Chinese." PhD thesis. University of Southern California.
- Lobeck, Anne (1995). *Ellipsis: Functional heads, licensing and identification*. New York: Oxford University Press.
- López, Luis (2012). *Indefinite objects: Scrambling, choice functions, and differential marking*. Cambridge, MA: The MIT Press.
- Merchant, Jason (2001). *The Syntax of silence: Sluicing, islands, and the theory of ellipsis*. Oxford: Oxford University Press.
- (2008). "Variable island repair under ellipsis." In: *Topics in ellipsis*. Ed. by Kyle Johnson. Cambridge: Cambridge University Press, pp. 132–153.

- Merchant, Jason (2013). “Diagnosing ellipsis.” In: *Diagnosing syntax*. Ed. by Lisa Lai-Shen Cheng and Norbert Corver. Oxford: Oxford University Press, pp. 537–542.
- Miyagawa, Shigeru (1989). *Structure and case marking in Japanese*. San Diego: Academic Press.
- (2001). “The EPP, scrambling, and *wh*-in-situ.” In: *Ken Hale: A life in language*. Ed. by Michael Kenstowicz. Cambridge, MA: The MIT Press, pp. 293–338.
- Modesto, Marcello (2000). “On the identification of null arguments.” PhD thesis. University of Southern California.
- Moulton, Keir (2013). “Not moving clauses: Connectivity in clausal arguments.” In: *Syntax* 16.3, pp. 250–291.
- Neeleman, Ad and Fred Weerman (1999). *Flexible syntax: A theory of case and arguments*. Dordrecht: Kluwer Academic Publishers.
- Negrão, Esmeralda Vailati (2002). “Distributividade e genericidade nos sintagmas introduzidos por *cada* e *todo* [Distributivity and genericity in phrases introduced by *cada* and *todo*].” In: *Revista do Gel* especial, pp. 185–205.
- Nespor, Marina and Irene Vogel (1986). *Prosodic phonology*. Dordrecht, Holland: Foris.
- Nichols, Johanna (1986). “Head-marking and dependent-marking grammar.” In: *Language* 62.1, pp. 56–119.
- Nomura, Masashi (2005). “Nominative case and AGREEMENT.” PhD thesis. University of Connecticut.
- Nunes, Jairo (2004). *Linearization of chains and sideward movement*. Cambridge, MA: MIT Press.
- Ohtaki, Koichi (2014). “Ellipsis of arguments: Its acquisition and theoretical implications.” PhD thesis. University of Connecticut.
- Oku, Satoshi (1998). “A theory of selection and reconstruction in the minimalist perspective.” PhD thesis. University of Connecticut.
- (2016). “A note on ellipsis-resistant constituents.” In: *Nanzan Linguistics* 11, pp. 56–70.
- Öztürk, Balkız (2001). “Turkish as a non-pro-drop language.” In: *The verb in Turkish*. Ed. by Eser Erguvanlı Taylan. John Benjamins Publishing Company, pp. 239–259.

- Panitz, Ezekiel J. (2014). "Strong islands, resumption, and reconstruction." In: *University College London Working Papers in Linguistics* 26. Ed. by Patrick D. Elliott and Ezekiel J. Panitz, pp. 13–42.
- Park, Myung-Kwan (1997). "The syntax of VP ellipsis in Korean." In: *Language Research* 33.4, pp. 629–648.
- Perlmutter, David (1972). "Evidence for shadow pronouns in French relativization." In: *The Chicago Which Hunt: Papers from the Relative Clause Festival*. Ed. by Paul Peranteau, Judith Levi, and Gloria Phares. Chicago: The Chicago Linguistic Society, pp. 73–105.
- Pollard, Carl and Ivan A. Sag (1992). "Anaphors in English and the scope of Binding Theory." In: *Linguistic Inquiry* 23.2, pp. 261–303.
- Postal, Paul (1986). *Studies in passive clauses*. Albany, NY: SUNY Press.
- Reinhart, Tanya (1997). "Quantifier scope: How labor is divided between QR and choice functions." In: *Linguistics and Philosophy* 20, pp. 335–397.
- Rizzi, Luigi (1982). *Issues in Italian syntax*. Dordrecht: Foris.
- Ross, John Robert (1967). "Constraints on variables in syntax." PhD thesis. Massachusetts Institute of Technology.
- (1969). "Guess who?" In: *Papers from the Fifth Regional Meeting of the Chicago Linguistic Society*. Ed. by Robert I. Binnick, Alice Davison, Georgia M. Green, and Jerry L. Morgan. Chicago: The Chicago Linguistic Society, pp. 252–286.
- Rouveret, Alain (2008). "Phasal agreement and reconstruction." In: *Foundational issues in linguistic theory: Essays in honor of Jean-Roger Vergnaud*. Ed. by Robert Freidin, Carlos P. Otero, and Maria Luisa Zubizarreta. Vol. 45. Cambridge, MA: The MIT Press, pp. 167–195.
- Saito, Mamoru (1982). "Case marking in Japanese: A preliminary study." unpublished manuscript, MIT.
- (2007). "Notes on East Asian argument ellipsis." In: *Language Research* 43.2, pp. 203–227.
- Sakamoto, Yuta (2012). "A study of sluicing and cleft in Mongolian: A comparison with Japanese." MA thesis. Tohoku University.

- Sato, Yosuke and Simin Karimi (2016). “Subject-object asymmetries in Persian argument ellipsis and the anti-agreement theory.” In: *Glossa* 1(1): 8, pp. 1–31.
- Schneider-Zioga, Patricia (2009). “Wh-agreement and bounded unbounded movement.” In: *Merging features: Computation, interpretation and acquisition*. Ed. by Josep M Brucart, Anna Gavarró, and Jaume Solà. Oxford: Oxford University Press, pp. 46–60.
- Şener, Serkan and Daiko Takahashi (2010). “Ellipsis of arguments in Japanese and Turkish.” In: *Nanzan Linguistics* 6, pp. 77–99.
- Shibatani, Masayoshi (1973). “Semantics of Japanese causativization.” In: *Foundations of Language* 9, pp. 327–373.
- Silva, Gláucia V. (2001). *Word order in Brazilian Portuguese*. Ed. by Harry van der Hulst, Jan Koster, and Henk van Riemsdijk. Studies in Generative Grammar 57. Berlin & New York: Mouton de Gruyter.
- Simpson, Andrew, Arunima Choudhury, and Mythili Menon (2013). “Argument ellipsis and the licensing of covert nominals in Bangla, Hindi and Malayalam.” In: *Lingua* 134, pp. 103–128.
- Stowell, Tim (1983). “Subjects across categories.” In: *The Linguistic Review* 2, pp. 285–312.
- Tada, Hiroaki (1993). “A / A-bar partition in derivation.” PhD thesis. Massachusetts Institute of Technology.
- Takahashi, Daiko (2007). “Argument ellipsis from a cross-linguistic perspective: An interim report.” In: *Handout from GLOW in Asia VI*.
- (2008a). “Noun phrase ellipsis.” In: *The Oxford Handbook of Japanese Linguistics*. Ed. by Shigeru Miyagawa and Mamoru Saito. Oxford University Press.
- (2008b). “Quantificational null objects and argument ellipsis.” In: *Linguistic Inquiry* 39.2, pp. 307–326.
- (2013). “Argument ellipsis in Japanese and Malayalam.” In: *Nanzan Linguistics* 9, pp. 173–192.
- (2014). “Argument ellipsis, anti-agreement, and scrambling.” In: *Japanese syntax in comparative perspective*. Ed. by Mamoru Saito. Oxford University Press, pp. 88–116.

- Takahashi, Masahiko (2010). "Case, phases, and nominative/accusative conversion in Japanese." In: *Journal of East Asian Linguistics* 19, pp. 319–355.
- Tescari Neto, Aquiles (2012). "On verb movement in Brazilian Portuguese: A cartographic study." PhD thesis. Università Cà Foscari di Venezia.
- Tomioka, Satoshi (2003). "The semantics of Japanese null pronouns and its cross-linguistic implications." In: *The Interfaces: deriving and interpreting omitted structures*. Ed. by Kerstin Schwabe and Susanne Winkler. John Benjamins.
- Torrego, Esther (1998). *The dependencies of objects*. Cambridge, MA: The MIT Press.
- Williams, Edwin (1980). "Predication." In: *Linguistic Inquiry* 11.1, pp. 203–238.
- (1981). "Argument structure and morphology." In: *The Linguistic Review* 1.1, pp. 81–114.
- Winter, Yoad (1997). "Choice functions and the scopal semantics of indefinites." In: *Linguistics and Philosophy* 20, pp. 399–467.