

Doubling Clitics are Pronouns: Reduce and Interpret

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Abstract: Controversy has plagued the question of whether verbal “object markers” (OMs) are object pronouns cliticized to the verb or realizations of object agreement. Beginning with data from Amharic, we develop a reliable and consistent diagnostic for resolving this question. Specifically, we claim that OMs should be analyzed as clitic pronouns if and only if they are unable to double nominals that are quantified, anaphoric, or contain a variable bound by a quantifier. These restrictions can be derived from familiar principles of grammar—the Crossover condition and the Binding theory—once the OM is taken to be a pronoun at LF. These OMs are formed within the syntactic derivation by first moving an object DP to Spec ν P (object shift) and then applying a novel syntactic operation Reduce, which replaces DP with its D head. We also explain why the same OMs can double nonreferential DPs when they appear in experiencer subject constructions in terms of the syntactic structure. Finally, we show that previous diagnostics for clitics versus agreement give conflicting results, and we consider some typological implications of our proposal. We confirm that both object clitics and object agreement exist cross-linguistically, and discuss why clitic doubling seems to be more common with objects than subjects.

Keywords: Amharic, clitic doubling, agreement, crossover, Reduce, clitics

1. Introduction

1.1 Agreement vs. Clitic Doubling

It is something of an embarrassment that generative linguistics has had a very hard time distinguishing pure agreement from clitic doubling. Conceptually the two analyses are usually very different, one focusing on the process of Agree, and the other on the distinct process of Move as the principal explanatory engine (although hybrid analyses also exist). It is troubling, then, that there has been so little consensus as to what data will tell us which analysis is correct for a given construction in a given language. In pessimistic moods, this could undermine our confidence that theoretical questions can be resolved by empirical observations in linguistics. It also stands to reason that we will not be able to settle questions about which properties of Agree (or Move) are universal and which vary parametrically until we can reliably distinguish true agreement from clitic doubling in a wide range of languages. For example, we will not be able to tell whether languages allow more than one true agreement per clause, which heads are allowed to undergo Agree (ν as well as T?), whether a language having object agreement necessarily implies that it also has subject agreement (can ν agree without T doing so?), whether exceptions to the Person-Case Constraint are possible in the domain of agreement, and so on.

The challenge arises in many languages, and it can be illustrated in Amharic (a Semitic language spoken in Ethiopia) as much as any. (1)a shows an ordinary transitive clause, with the object as a separate phrase before the verb, as expected given that Amharic is a rather uniform head final language (with the apparent exception of Ps; see Baker and Kramer 2014). In contrast, (1)b is the way to express a weak, unstressed pronoun as object in Amharic. There are two crucial differences with (1)c: the morpheme /äw/ expressing ‘it’/‘he’ comes after the verb ‘see,’ not before it, and it forms a phonological unit with ‘see’.

- (1) a. Läm̄ma **wiffa-w-in** ayy-ä.
 Lemma.M dog-DEF.M-ACC see.PF-3MS.S
 ‘Lemma saw the dog.’¹
- b. Läm̄ma ayy-äw.
 Lemma.M see.PF(3MS.S)-3MS.O
 ‘Lemma saw it/him.’²
- c. Läm̄ma **wiffa-w-in** ayy-äw.
 Lemma.M dog-DEF.M-ACC see.PF(3MS.S)-3MS.O
 ‘Lemma saw the dog.’

As a point of terminology, we call elements like /äw/ in (1)b *object markers* (OMs, a term taken from Bantu linguistics), so as not to prejudge whether it is a realization of agreement or a clitic pronoun.

Amharic is analogous in this respect to the much-discussed case of pronouns in French and many other Indo-European (I-E) languages, as seen in (2)a versus (2)b, with the predictable difference that normal objects are after the verb in French (it being head-initial), while weak pronouns are before it.

- (2) a. Marie connaît mon frère . (French, Kayne 1975:66)
 Marie knows my brother
- b. Marie les-connaît.
 Marie them-knows
- c. Maria los-conoce a los hombres. (Colloquial Chilean Spanish; H. Campos, p.c.)
 Maria them-knows (to) the men
 ‘Maria knows the men.’

Focusing on minimal pairs, then, it is plausible to think of (1)b and (2)b as being derived from a source like (1)a and (2)a by some kind of “pronoun movement”, as in Kayne’s (1975) classic analysis and many others since. In the current theoretical context, this could be conceived of as either DP movement (a type of phrasal movement), or D-movement (a type of head movement), or some combination. Let us call any analysis along these broad lines a *cliticization* analysis.

But of course (1)ab and (2)ab are not the whole paradigm. (2)c shows that the OM on the verb and a full DP in (what is apparently) the object position can co-occur—not in all languages (not in French or Standard Italian, for example), but in some, including some dialects of Spanish, as well as Romanian, Greek, Bulgarian, and others. (1)c shows that this is also clearly possible in Amharic.

Examples like (1)c thus seem problematic for the simplest cliticization accounts. Rather, they suggest an agreement account, in which these examples have a functional head (presumably *v*) that agrees with the direct object—a possibility that is anyway believed to hold covertly even in languages that lack overt object agreement, like English, in Chomsky (1986, 2000) and related work. From this perspective,

¹ Gloss abbreviations: 1 – first person or Noun Class 1 in Bantu, 2 – second person or Noun Class 2 in Bantu, 3 – third person, 7 – Noun Class 7, ABS – absolutive, ACC – accusative, APPL – applicative, AUX – auxiliary, C – complementizer, COP – copula, CP – conjunctive participle, DAT – dative, DEF – definite marker, DEM – demonstrative, DJ – disjoint, ERG – ergative, F – feminine, FOC – focus, FV – final vowel, GEN – genitive, GER – gerund, IMPF – imperfective, INDEF – indefinite, INF – infinitive, M – masculine, N – neuter, NEG – negation, NPRS – nonpresent, NPST – nonpast, .O – object marker, OBL – oblique, PASS – passive, PF – perfective, PL – plural, PRES – present tense, POSS – possessive clitic, PREV – preverb, PRX – proximal, PST – past tense, S – singular, SG – singular in Burushaski and Bantu, .S – subject agreement, X – a gender in Burushaski, Y – a gender in Burushaski

² Third person masculine singular agreement (*ä*) is deleted by a regular process of hiatus when it is followed by any vowel-initial suffix. In such cases, we still gloss it and place it in parentheses, following Baker 2012a.

(1)b falls into place, not as an instance of pronoun movement, but as pro-drop: a phonologically null pronoun in the object position is licensed (somehow) by the presence of rich agreement on the verb. For an agreement account, the most problematic example in (1) is (1)a, because it suggests that agreement with objects is somehow optional in Amharic, whereas agreement is normally taken to be obligatory wherever possible (as agreement with subjects is in many languages, including Amharic). But there are various ways in which this anomaly might be addressed (see Section 2.1 below).

However, just as an agreement-based account can presumably be patched to include (1)a, so a cliticization-based account can be patched to include clitic doubling in (1)c. Various proposals exist in the literature about how to do this. The one that we favor is sketched in preliminary fashion in (3), based on Harizanov (2014), Kramer (2014) and van Urk (2015), who develop ideas pioneered by Matushansky (2006). The idea is that first the direct object moves to a clause-medial specifier position, for concreteness assume Spec vP ((3)b)). This is essentially the same movement that one sees more transparently in some Germanic languages, called object shift. Then the higher copy of the DP object is reduced to its D head ((3)c)). We take this Reduce operation to be distinct from, but akin to, the normal deletion of material in copies: most of the DP deletes, but its head does not. This reduction of the higher copy in the chain bleeds the deletion of the lower copy. Then the reduced head cliticizes to the verb by an operation we call Spec-Head Merge, as in (3)d. At PF it is spelled out as *-äw* in Amharic, *lo* in Spanish, and so on. (Note that we use head-final structures when illustrating with Amharic data and head-initial structures for more schematic representations.)

- | | | | |
|-----|----|--|-----------------|
| (3) | a. | [_{TP} Lämma [_{VP} [_{VP} [_{DP} [_{NP} dog] D] see]] v] T] → | Move=copy |
| | b. | [_{TP} Lämma [_{VP} [_{DP} [_{NP} dog] D] [_{VP} [_{DP} [_{NP} dog] D] see] v] T] → | Reduce |
| | c. | [_{TP} Lämma [_{VP} [D] [_{VP} [_{DP} [_{NP} dog] D] see] v] T] → | Spec-Head Merge |
| | d. | [_{TP} Lämma [_{VP} [\emptyset] [_{VP} [_{DP} [_{NP} dog] D] see] v+D] T] | |

One can debate whether Move, Reduce, and Spec-Head Merge are separate processes or one complex process; previous work for example conflates the last two. However, they are at least logically distinct, and indeed the representation like (3)c, where Reduce has applied but Spec-Head Merge has not, will be important to our account. We return to flesh out and justify the details in Section 3 below.

The upshot of this brief overview, then, is that there has been a long-standing stalemate in the debate between agreement analyses and cliticization analyses of paradigms like (1) and (2). Each handles part of the paradigm very easily and intuitively, and both can be refined to handle the more problematic data that gives *prima facie* motivation to the alternative account. And it is a shame that there is such a stalemate, undermining our sense that theoretical controversies can be resolved empirically, and inhibiting our ability to delimit theoretically the exact range of agreement and movement phenomena.

1.2 A Better Diagnostic

In fact, there is not much doubt that Amharic should be treated as a case of clitic doubling, not simply agreement. This is settled by Kramer (2014), who shows that OMs in Amharic consistently behave like clitics for many diagnostics that have been proposed and widely used in the literature (see also Mullen 1986 and Yabe 2001). However, many of those diagnostics are not so well-understood, in the sense that we do not know why they hold, and hence how reliable they are. This becomes crucial when we want to apply the tests typologically to other languages, where the diagnostics clearly do not all point to the same result (e.g., Burushaski and Sambiaa, discussed in Section 5). Which diagnostics should we trust in such conflicts?

We argue that one class of data that should be crucial for resolving this question is in (4). This shows that there are a range of DPs that can function as direct objects in Amharic which cannot be doubled by an OM. These are what we can informally call “less than fully referential” nominals—a class that includes nonspecific indefinite NPs ((4)a), interrogative NPs ((4)b), universally quantified NPs ((4)c), and reflexive anaphors ((4)d), among others (we characterize this set more fully in section 2).

- (4) a. Läm̄ma wiff̄fa y-ay-all. (*y-ay-äw-all)
 Lemma.M dog.M 3MS.S-see.IMPF-AUX.3MS.S 3MS.S-see-3MS.O-AUX.3MS.S
 ‘Lemma sees a dog.’
- b. Mann-in ayy-ij̄ ? (*ayy-ij̄-iw)
 who.M-ACC see.PF-2FS.S see.PF-2FS.S-3MS.O
 ‘Who did you (feminine) see?’
- c. Läm̄ma hullu-n-imm säw ayy-ä. (*ayy-äw)
 Lemma.M every-ACC-FOC person see.PF-3MS.S see.PF(3MS.S)--3MS.O
 ‘Lemma saw everyone.’
- d. Läm̄ma ras-u-n gäddäl-ä. (*gäddälä-w)
 Lemma.M self-his-ACC kill-3MS.S kill(3MS.S)-3MS.O
 ‘Lemma killed himself.’

That some such restrictions exist in some languages is, of course, well-known (especially for (4)a), but we believe that the contours of the phenomenon have not been accurately identified, and that the phenomenon has not been properly interpreted. We claim that (at least some of) the data in (4) is quite mysterious from a pure Agree perspective, whereas it can be explained in terms of familiar grammatical conditions if we adopt a clitic-doubling analysis along the lines of (3). The crucial novel assumption is that the clitic D in Spec *v*P in (3)c is interpreted as a pronoun at LF, distinct from the doubled DP. Once we make this assumption, the badness of (4)bc follows as a kind of crossover violation, and the badness of (4)d follows from Condition B of the Binding theory. We conclude from this that any language which has restrictions like those in (4) has pronominal clitic doubling, not agreement, because there is real explanatory force to saying that there is a pronoun in the structure. Conversely, any languages in which restrictions like (4) do not hold do not have a pronoun in the grammatical representation in addition to the DP, by parity of reasoning; those are true agreement languages. In this, we aspire to replace a set of vaguely understood diagnostics that can give conflicting results with a sharp and better-understood diagnostic that gets directly at the essential conceptual difference between clitic-doubling and agreement—namely, the fact that only the first analysis has a pronominal clitic in it.³

If correct, the derivation in (3) and how it is interpreted at LF has potentially important theoretical consequences. (3)c is the ideal representation to apply the necessary conditions to, because it contains a pronoun (the D head, unlike (3)b) in an A-type position with a well-defined c-command domain (Spec *v*P, unlike (3)d). This points to two important conclusions. First, the different links of a chain can be interpreted separately; they are not necessarily just a single unit from the point of view of interpretation. This is neatly analogous to the result from the copy theory of movement literature that different links of a chain can be pronounced differently at PF (see e.g., Nunes 2004, Kandybowicz 2007, Bošković and Nunes 2007). Second, Reduce must be a true syntactic operation, not simply a PF one, as its predecessors (like m-merger) have been taken to be.

Our discussion develops in the following stages. In Section 2, we explain how the incompatibility of OMs and nonreferential objects follows from the OM being interpreted as a pronoun at LF. Section 3

³ We do acknowledge, however, that there might be other senses of clitic doubling in which the doubling clitic is not a *pronominal* clitic. For example, there might be two morphemes that realize phi-features on the verb and are compatible with every kind of DP, but one is more tightly bonded to the verb for phonological purposes, or one is more mobile than the other in word/morpheme order (see Coon to appear for a possible case in point in Mayan languages). Then it might make sense to say the more tightly bonded one is an affix and the less tightly bonded one a clitic, but not a pronominal clitic. One might tentatively think of any such nonpronominal clitics as functional heads that undergo Agree but then attach to the verb by cliticization at PF rather than by any syntactic process.

contains the nuts and bolts of our clitic doubling analysis. Section 4 shows how our analysis can account for the fact that experiencer arguments are not subject to referentiality restrictions, even when they are doubled by an OM, and discusses issues that arise when a DP moves through *v*P on its way to some other position. Section 5 takes a cross-linguistic perspective, showing how the (in)compatibility of OMs and nonreferential objects can be an especially effective diagnostic for clitic doubling, using data from Burushaski (a Pakistani isolate) and Sambiaa (Bantu). Section 6 concludes.

1.3 The Object is In-Situ

One important preliminary to resolve immediately, though, is making sure that the full DP in examples like (1)c is really in the normal direct object position, not dislocated to an adjoined position. This is important because there are languages that allow Left- and/or Right-dislocation that do not allow true clitic doubling (e.g., Italian). Indeed, Eilam (2009) claims that Amharic is one of these, with all doubled objects clitic left dislocated. However, we disagree with this view for the following reasons.

Good evidence has been given that the full DP is in the clause-internal object position in VO languages like Greek (Anagnostopoulou 1994, 1999:764-768), Spanish (Jaeggli 1986, Suñer 1988), and Bulgarian (Harizanov 2014; but see Krapova and Cinque 2008 for a different view). Although it is not so easy to replicate the best of these arguments in Amharic because it is a SOV language with *wh*-in-situ, it is clear that the object in (1)c follows the subject just as it does in (1)a, and that the two sentences can be pronounced with what is impressionistically the same smooth intonation contour—there is no prosodic break, as exists between a dislocated DP and the rest of the clause in many languages.

Even more importantly, full DPs doubled by an OM can also follow adverbs. This includes even adverbs that are considered very low in the Cinque hierarchy (Cinque 1999), as seen in (5).

- (5) a. Läm̄ma ahunimm wiffa-w-in y-ay-äw-all.
 Lemma.M still dog-DEF.M-ACC 3MS.S-see.PF-3MS.O-AUX.3MS.S
 ‘Lemma still sees the dog.’
- b. gäna wiffa-w-in al-ayy-äw-imm.
 yet dog-DEF.M-ACC NEG-see-3MS.S-3MS.O-FOC
 ‘He has not seen the dog yet.’

Furthermore, obviously adjoined DPs in Amharic do not necessarily display case connectivity. It is possible to have orders like [Object, Subject-Verb-OM] where the object dislocated/adjoined to clause initial position has default (unmarked) nominative case (Amharic has differential object marking on objects depending on specificity, but the dislocated object can be nominative even if it is specific). Similarly, a possessor can be dislocated/adjoined to clause initial position, and if so, it, too, has nominative case (Leslau 1995:841). However, these mismatches do not occur with simple doubling: every clitic-doubled DP in SOV order must have accusative case (if specific; (1)c) or dative case (see (48)a).

Finally, it is possible to relativize a possessor from within an in-situ clitic-doubled DP, just as it is from an undoubled object, as shown in (6)a. (the clitic-doubled DP is *gänzäb-u-n* ‘his money.ACC’). In contrast, it is not possible to relativize a possessor from within an obviously dislocated DP, as in (6)b.

- (6) a. Almaz gänzäb-u-n yä-särräk’-ät[ʃf-(i)w] astämari bät’am habtam näw
 Almaz.F money-his-ACC C-steal.PF-3FS.S-3MS.O teacher.M very rich be.3MS.S
 ‘The teacher whose money Almaz stole is very rich.’
- b. *gänzäb-u, Almaz yä-särräk’-ät[ʃf-iw] astämari bät’am habtam näw
 money-his, Almaz.F C-steal.PF-3FS.S-3MS.O teacher.M very rich be.3MS.S
 Intended: ‘The teacher who, as for his money, Almaz stole it. is very rich.’

This confirms that the clitic-doubled DP is an argument, and as such not an island for relativization, whereas the dislocated DP is adjoined, and so cannot be relativized from. Overall, then, we have no evidence that the clitic-doubled DP is dislocated/adjoined. Clitic doubling with in situ objects is certainly allowed by UG, since it is found in languages like Bulgarian, so there is a kind of logical learnability argument that language learners will conclude that Amharic has clitic doubling with in situ objects.

2. Explaining the incompatibility of OMs with nonreferential objects

2.1 The limits of an agreement account

The *prima facie* importance of examples like (4) is that there is no obvious reason why it should not be possible for v (or the equivalent) to agree with the object in such examples. One cannot, for example, say that they fail to participate in Agree because they lack the relevant features, since these nominals clearly do have phi-features. Indeed, such nominals are perfectly good participants in Agree relationships when they appear in subject position, where they trigger subject agreement on the verb, as seen in (7).⁴

- (7) a. Hullu-mm set mät't'-at[ɬ].
 every-FOC woman.F come.PF-3FS.S
 'Every woman came.'⁵
- b. Man mät't'-a?
 who.M come.PF-3MS.S
 'Who came?' (Leslau 1995:68)

Why then should object agreement be any different from subject agreement in this respect?

Of course, it has been thought for a long time that some instances of agreement—especially object agreement—come along with semantic consequences or restrictions. This has not been taken to be fatal to an agreement-based account. Thus, it is often said that the verb agrees with the object only if it is “specific”, where some authors are more explicit than others what they mean by this. For example, it has been suggested that [+specific] may be another feature that can be present on nominals and involved in agreement (see Suñer 1988 and Sportiche 1996:264 on Romance; Franks and King 2000 on Slavic, among others.). As a placeholder for a future account, we have no problem with this, but as an official theory we consider it unpromising. First, specificity is primarily a semantic or pragmatic notion, not a morphosyntactic feature; indeed we do not think that it is common for languages to mark such a feature systematically on nominals themselves (e.g., *a book* is ambiguous between specific and nonspecific readings in English), whereas the core phi-features involved in agreement, like person, number, and gender, are routinely (although not universally) marked on the DP itself. Second, while a specificity condition might rule out (4)ab it is not clear that it would extend to (4)cd without rendering the term “specificity” vacuous. Third, it is far from obvious along these lines why specificity should matter for object agreement in Amharic and many other languages, but not for subject agreement.

A more promising agreement theory that is responsive to at least some of these concerns is one that makes a connection with object shift. This involves linking up two ideas: the idea that the direct object is interpreted as specific if it moves out of VP to land in a position in the vicinity of Spec v P, and the idea that only if the object moves to such a position can v enter into Agree with it. For example, Baker (2008:198-200) assumes such a view for certain Bantu languages, and Baker (2012a) uses it for Amharic. This seems promising because the first idea is independently motivated by studies of object shift in Germanic languages in the tradition of Diesing (1992). Thus, the visible difference in position in the DPs

⁴ We cannot, however, show this for a reflexive anaphor like *ras-u*; such anaphors cannot be used as subjects because they have no possible antecedent in the local clause when they are in that position.

⁵ Some speakers prefer the form *hullu-wa-mm* ‘every-DEF.F-FOC’ for feminine nouns.

in (8)a and (8)b in Dutch seems attractively similar to the difference between (4)a and (1)c in Amharic (see Sportiche 1996: sec 7 for an early connection between clitic doubling and object shift/scrambling).

- (8) a. ... dat Jan mijn huis waarschijnlijk -- zal kopen.
 that Jan my house probably -- will buy.
 ‘that Jan will probably buy my house’ (Broekhuis 2008:218)
- b. *... dat Jan een huis waarschijnlijk -- zal kopen.
 that Jan a house probably will buy.
 ‘that Jan will probably buy a house’ (Broekhuis 2008:218)
 (OK is: ... waarschijnlijk een huis zal kopen)

So this view is better grounded theoretically than a simple Agree account.⁶ Indeed, we accept the idea that structures with OMs crucially involve object shift, as sketched in (3)ab, and nonspecific indefinites cannot undergo this sort of movement. This can account for the badness of (4)a. But on a closer look we discover that the account is not general enough to be complete. In particular, it does not carry over to examples with universal quantifiers like (4)c, or examples with reflexive anaphors like (4)d. The reason is simply that analogous DPs can undergo object shift in languages like Icelandic and Dutch; examples are in (9), with two potential landing sites for the shifted DP in Icelandic in (9)a.

- (9) a. Sámur leigði {hverja spólu} eflaust {hverja spólu} oft **Icelandic**
 Sam rented {each tape} doubtlessly {each tape} often.
 ‘Sam probably rented each video tape often.’
 (G. Harðarson, p.c.; see also Broekhuis 2008:222 for Dutch)
- b. ... dat Hans zichzelf waarschijnlijk-- heeft bekritiseerd **Dutch**
 ... that Hans himself probably has criticized
 ‘...that Hans has probably criticized himself.’ (Broekhuis, p.c.)

Therefore, one cannot explain the badness of OMs doubling DPs like these simply by saying that they cannot undergo object shift. Rather there must be some additional condition that rules out such examples in a language with OMs that does not apply in a language with object shift only. The Agree-based account is seriously incomplete in this respect, and there is room for a clitic doubling account to do better.

2.2 OMs and Crossover in Amharic

Our thesis is that the clitic-doubling account sketched in (3) can fill this explanatory gap, once it takes on board the additional assumption that the D in Spec ν P at the crucial stage in (3)c, repeated as (10), is interpreted as a pronoun at LF.

- (10) [_{TP} Lämma [_{VP}[D] [_{VP}[_{DP} [dog] D] see] ν] T]

After all, we know that the situations in which a pronoun can be interpreted as a variable bound by a quantifier are rather restricted—significantly more restricted than when it can be interpreted as being coreferential with a definite DP. This is the well-known (weak) crossover phenomenon, seen in examples like (11). Throughout, we indicate covaluation/referential dependence informally with underlining.

⁶ However, developing such an approach does still pose some nontrivial issues for the theory of Agree, in that one needs to say why ν cannot agree with DP unless DP moves out of VP, since it is normally taken to be possible for ν to agree into VP. (For Baker (2008), this motivates saying that Agree must be upward in certain languages.)

- (11) a. His mother loves John.
 b. ?*His mother loves everyone.

Quantified nominals in Amharic also give crossover effects in contexts that are analogous to (11)b. Thus, the pronoun inside the subject in (12)a cannot be understood as a variable bound by the quantified object. As a result, (12)a does not have a reading that is naturally given to the passive version in (12)b, where the theme moved to the subject position does c-command the pronoun embedded inside the *by*-phrase.

- (12) a. #abbat-u hullu-n säw yi-wädd-all.
 father.M-his every-ACC person.M 3MS.S-love.IMPF-AUX.3MS.S
 ‘His father loves everyone.’ (Not: for all x, x’s father loves x)
- b. Hullu säw bä-abbat-u tä-wädd-o näbbär
 every person.M by-father-his PASS-love.GER-3MS.S AUX
 ‘Everyone is loved by his father.’ (Bound variable anaphora is possible.)

So crossover does apply in Amharic.⁷ Our proposal, then, is to derive the contrast between (1)c and (4)c, given schematically with English-like word order in (13), from the same condition.⁸

- (13) a. Mary him-loves John
 b. *?Mary him-loves everyone.

On the informal, lingua franca, working-syntax version of crossover, this result follows essentially immediately. This says roughly that “a pronoun cannot be bound by a quantifier unless it is c-commanded by a trace (in A-position) of that quantifier.”⁹ After QR, (13b) looks roughly like (14).

- (14) [_{TP} everyone [_{TP} Mary T [_{VP} him v [_{VP} loves <everyone*>]]]]

Here the D in Spec vP counts as a pronoun, and it is in the scope of ‘everyone’, so the interpretation being aimed for is semantically conceivable. However, the trace of the quantifier is inside VP, where it does not c-command the D ‘him’; on the contrary, D c-commands the trace of the quantifier. Hence, (14) violates the crossover condition (more specifically, it is an instance of strong crossover, although we follow Safir (2004b) in not drawing a principled theoretical distinction between the two types). In contrast, (13)a does not have a quantifier, so it is not at risk of violating this condition, just as (11)a is not (although we will have to say why it does not violate Condition C; see Section 2.5 below).

⁷ Note, however, that even examples like (12)a with a name in the object position (‘his-father Lemma-ACC loves’) are not consistently accepted by Amharic speakers unless there is a clitic that doubles the object ‘Lemma’ (Kramer 2014:604-605). This is why we compare the DPs that cannot be clitic doubled in Amharic with the DPs that cause weak crossover effects in English, rather than attempting a systematic language-internal comparison between structures like (12a) and ones like (4c) in Amharic itself.

⁸ In this, we are reintroducing and expanding on an insightful idea of Rizzi’s (1986) about why quantified NPs cannot undergo CLLD in Italian and French. However, the restrictions on CLLD and on true clitic doubling are similar in some respects, but not identical (see, for example, Anagnostopoulou 1994 on Greek, also notes 13 and 26 below). We have nothing to say about the distinctive restrictions on CLLD here.

Our strategy of deriving restrictions on clitic doubling from crossover may seem like a paradoxical one to some who know this literature, since previous work on Spanish, Greek, and Bulgarian, has said that clitic doubling of quantified DPs is possible, and indeed ameliorates certain weak crossover violations (Suñer 1988, Alexiadou and Anagnostopoulou 1997, Harizanov 2014). We address this issue in section 2.4.

⁹ See Büring (2005) for a contemporary way of building this condition into the semantic interpretation scheme, where *wh*-words (and presumably moved quantifiers) and other nominals can both introduce lambda-extraction to bind variables, but the two kinds of operators are kept distinct, so that a quantifier cannot directly bind a pronoun.

The desired result follows almost as readily on more recent and refined approaches to crossover phenomena. To illustrate, we consider a version based on Safir (2004b). Along these lines, the following two principles are the crucial ones for explaining (11)a versus (11)b.¹⁰

- (15) The Crossover Condition (Safir’s “Quantifier Dependency Condition”):
X can be interpreted as dependent on a quantified antecedent Y only if X is a q-variable of Y, or X is dependent on a q-variable of y, or there is no q-variable of Y. (Here X is a q-variable if and only if X is a variable that replaces the deleted copy of an operator.)
- (16) Independence Principle (INP):
If X depends on Y, Y a bound variable, then X (or a DP containing X) cannot c-command Y.

We want to interpret the clitic D ‘him’ in (14) as depending on the quantified antecedent ‘everyone’ adjoined to TP. To see if this is allowed by (15), we need to decide what is a q-variable of ‘everyone’. There are two chains here: the one produced by object-shift-plus-Reduce consisting of ‘him’ and ‘everyone*’, and the one produced by QR, consisting of ‘everyone’ and ‘everyone*’. We assume that the two chains are parallel but independent: therefore, ‘him’ does not count as a q-variable of ‘everyone’. (The reason for this chain structure might be that the distinctively quantificational properties of the DP are lost on the higher copy of the object shift chain in Spec *v*P as an effect of Reduce; compare the Greek example in (30)a which shows that a quantified DP that cannot be clitic doubled can nevertheless have an ordinary—not intrinsically quantificational—D head. Since the Reduced higher copy of this chain has no quantificational features, it cannot undergo QR, whereas the lower copy can.) ‘Everyone*’ does count as a q-variable for ‘everyone’ in the normal way, since it is the trace of the quantified DP in the thematic position. Therefore ‘everyone’ has a q-variable in (14), and ‘him’ is not it. Therefore ‘him’ can be interpreted as dependent on ‘everyone’ only if ‘him’ is dependent on ‘everyone’s q-variable, namely ‘everyone*’. The Independence Principle in (16) then says that this is impossible, because ‘him’ c-commands ‘everyone*’. So (13)b is still ruled out by these more refined principles, as desired.

There is a bit of a gap in this account, however. Technically (15) and (16) don’t rule out (13)b/(14); they only says that ‘him’ cannot have the value of ‘everyone’. It is conceivable that ‘him’ could still refer deictically or to some other antecedent in discourse. However, (13)b is also bad on this interpretation, just as rogue sentences like (17) are, in which an OM on the verb does not match any argument in the clause (if (17) could even be generated by the syntax at all).¹¹

- (17) *Almaz Aster-in ayy-ätʃʃ-äw.
Almaz.F Aster.F-ACC see.PF-3FS.S-3MS.O
‘Almaz saw (him) Aster.’

(17) and (13)b under the rogue interpretation are presumably bad because the clitic D ‘him’ is an argument-type element that is not properly related to any thematic role within the sentence. In other words, ‘Mary him-likes everyone’ is bad for the same reason that ‘Mary likes everyone him’ is bad in English; both violate the Theta Criterion/Full Interpretation. So the D in Spec *v*P must be referentially

¹⁰ The only difference between our versions of (15) and (16) and Safir’s is that we restrict the Independence Principle in (16) to cases of a DP depending on a bound variable, whereas Safir non-standardly has it apply to DPs depending on R-expressions as well. In doing this, Safir intentionally builds in some redundancy between his Independence Principle and Principle C of the Binding theory. Separating the crossover conditions more sharply from Condition C helps us to handle our crucial cases more simply and directly, but it may risk losing some of Safir’s more distinctive results (like the account of proxy terms in Safir (2004b:48-51)).

¹¹ It is an open question whether Amharic has any “ethical dative” clitics that do not double any argument. Leslau (1995:420-421) notes that intransitive verbs can have third masculine singular OMs with some kind of emotional effect, but it remains unclear whether transitive verbs (like the one in (17)) can ever have this kind of OM. If any such cases exist, they must be quite heavily restricted, so we do not consider ethical dative clitics here.

dependent on a properly licensed argument. More specifically, it must de facto be referentially dependent on the object which it is derivationally related to. Although this specific condition may well be derivable from general principles, we state it here as the principle in (18), for clarity and convenience.¹²

- (18) A D created in a non-thematic position by Reduce must be referentially dependent on the undeleted/unreduced member of its chain.

Once this has been made explicit, there is a direct conflict between (18) and the crossover conditions (15)-plus-(16) when it comes to structures like (14): (18) says that the clitic pronoun must depend on the overt object, and (15)-plus-(16) say that it cannot. Therefore, such examples are ungrammatical.

2.3 Crossover variations

Crossover is of course a rather general condition, holding not just for universal quantifiers, but for a range of quantificational DPs. For example, it also rules out examples like (19)a, where a pronoun tries to be bound by an interrogative phrase (indeed, this was Postal’s (1971) original case, motivating the term “crossover”). In the same way, it can rule out clitic-doubling structures with the form of (19)b with overt *wh*-movement, and those like (19)c, with *wh*-in situ. This is desirable, since examples like (19)c are indeed ruled out in Amharic, as seen in (4)b above and (23)a below.

- (19) a. ?*Who does his mother love?
 b. ?*Who does Mary him-love?
 c. ?*Mary him-loves who?

Crossover effects are also found with negative quantifiers like ‘nobody’ in English (?**His accountant loves nobody*). It is not clear that Amharic has an exact analog of *nobody* in English, but the functional equivalent is a word like *mann-imm*, marked for focus, used together with negation on the verb. Such expressions can be used as direct objects, but they too cannot be doubled by an OM:

- (20) Läm̃ma mann-in-imm al-ayy-ä-(*wi)-mm.
 Lemma.M one-ACC-FOC NEG-see.PF-3MS.S-(*3MS.O)-FOC
 ‘Lemma saw nobody; Lemma didn’t see anybody.’

In contrast, negatively quantified DPs can undergo object shift in Dutch and Icelandic (Broekhuis 2008, p.c.; G. Harðarson, p.c.). Thus, a whole family of examples that cannot necessarily be ruled out by restrictions on object shift or by restrictions on Agree can be ruled out by our hypothesis that the OM is a pronoun, and as such is subject to the Crossover Condition.

However, it is also well-known that what exactly counts as a quantified antecedent for purposes of a crossover condition like (15) can be a subtle matter, with some elements falling under the condition and other superficially similar elements not—the latter being instances of what Lasnik and Stowell (1991) memorably called “weakest crossover”. Although the ultimate account of what makes something a quantifier in the relevant sense may be somewhat elusive, the logic of our analysis yields a fairly

¹² An anonymous reviewer asks whether it is crucial to us that the OM and its DP associate are related by movement, or whether the OM might just as well be base-generated. A large part of our answer depends on whether the obligatory referential dependence of the OM on the object can be derived from more general principles without referring to a movement chain, as (18) does. We are not at all sure that (18) cannot be derived, in which case the assumption of movement might be dispensable. However, we are not sure that it can be either, and trying to do so would require us to discuss various increasingly arcane possibilities that would take us away from our main point. (Another relevant issue is the locality effects on doubling discussed at the beginning of section 3.1. We treat these as following from the locality of Agree, but the locality conditions on movement are a possible alternative.)

straightforward prediction: the kinds of factors that affect whether a certain type of DP falls under weak/strong crossover or weakest crossover in a language like English should also affect whether that type of DP can undergo clitic doubling in Amharic. For example, a distinction needs to be drawn between distributive universal quantification expressed by a singular DP like ‘every N’ or ‘each N’ and universal quantification--often domain-restricted--expressed by a plural DP like ‘all (the) Ns’. Although the two can express similar propositions, the singular quantifiers yield canonical crossover violations (see (11)b), whereas the violation can be weak or absent with plural domain-restricted DPs, as shown by (21).

(21) Their incautious statements ended up ruining all my friends. (Cinque 1990:11, Safir 2015)

The expectation for Amharic, then, is that plural DPs with a quantifier like ‘all’ can be doubled by a plural OM, even though DPs with a quantifier like ‘every’ or ‘each’ cannot be doubled by a singular OM. This is true, as shown in (22), with the interesting qualification that there is no formal distinction between ‘every’ and ‘all’ in Amharic; both are translated as *hullu*.¹³

- (22) a. Almaz hullu-n-imm tāmari agāññ-ätʃʃ(*-iw)
 Almaz.F every-ACC-FOC student.M meet.PF-3FS.S(-3MS.O)
 ‘Almaz met every student.’
- b. Almaz.F hullu-n tāmari-wotʃʃ agāññ-ätʃʃ-atʃʃäw
 Almaz all-ACC student-PL meet.PF-3FS.S-3PL.O
 ‘Almaz met all the students.’

Presumably either ‘all N-PL’ does not undergo QR at all, or it does undergo something like QR, but its trace does not count as a q-variable for purposes of the Crossover Condition in (15) (cf. Safir 2004b:87).

Kramer’s (2014) observation that OMs in Amharic cannot double a simple question word like ‘who’ or ‘what’ but can double a D-linked wh-phrase like ‘which N’ (see (23)) can be explained in similar terms (see Dobrovie-Sorin 1990 on a similar contrast in Romanian).

- (23) a. Girma tinant männ-in ayy-(*-äw)
 Girma.M yesterday who.M-ACC see.PF(3MS.S)-(*-3MS.O)
 ‘Who did Girma see yesterday?’ (Kramer 2014:601)
- b. Almaz tinant yätiñnaw-in tāmari ayy-ätʃʃ-iw?
 Almaz.F yesterday which.M-ACC student see.PF-3FS.S-3MS.O
 ‘Which student did Almaz see yesterday?’ (Kramer 2014:601)

We explain this contrast also by saying that canonical question words count as true quantifiers for (15), but D-linked ones do not (always). Indeed, it has been observed that crossover effects can be weaker with *which N* than with *who* in English. For example, Wasow (1979:163) gives (24) as significantly better than examples like (19)a (but see Safir (2015) on variability in this data).

(24) ?Which picture did the man who painted it refuse to sell?

So far, then, our analysis (unlike an object shift analysis) makes the right cut: referential DPs can be doubled, but quantificational DPs cannot due to crossover effects.

¹³ Note that clitic doubling is bad here, even though there is an NP restrictor for the quantifier. The same is true for the Greek example in (30a). In contrast, Rizzi (1986) and Cinque (1990) report that quantifiers can be clitic left dislocated in Italian as long as they have an NP restrictor; see notes 8 and 26.

For descriptive completeness, we briefly describe the behavior of several other putative quantifiers in Amharic—ones for which the specific-nonspecific distinction looms large. For example, Amharic has an element *and* which (like English *a*) can be used in both specific and nonspecific indefinite DPs. The specific version can be doubled by an OM (although it need not be), whereas the nonspecific version cannot be doubled, as shown in (25).

- (25) a. And-in tämari i-fällig-(**äw**)-allä-hu. Sim-u Girma näw.
 a-ACC student.M 1S.S-want.IMPF-3MS.O-AUX-1S.S. Name.M-his Girma be.3MS.S
 ‘I’m looking for (lit. want) a certain student. His name is Girma.’
- b. and tämari i-fällig(*-äw)-allä-hu.
 a student 1S.S-want.IMPF-3MS.O-AUX-1S.S
 ‘I’m looking for (lit. want) a student.’ (Context: the speaker is conducting a survey of students and is looking for one last student to fill it out; it doesn’t matter who it is.)

Additionally, the OM forces a specific reading of partitive DPs and of weak quantifiers like *hulätt* ‘two’, and *bizu* ‘many’. Data involving ‘two’ is given in (26).

- (26) a. hulätt wiſſ-otſſ i-fällig-allä-hu.
 two dog-PL 1S.S-want.IMPF-AUX-1S.S.
 ‘I’m looking for (lit. want) two dogs.’ (any two will do)
- b. hulätt wiſſ-otſſ i-fällig-**atſſäw**-allä-hu.
 two dog-PL 1S.S-want.IMPF-3PL.O-AUX-1S.S.
 ‘I’m looking for (lit. want) two particular dogs.’

(26)a can be interpreted non-specifically, in the sense of ‘any two dogs will do.’ However, in (26)b, the speaker must have two specific dogs in mind that they are looking for (for example, Fido and Spot). (25) and (26) are not surprising for any analysis that builds in object shift as a step in a clitic doubling derivation, as ours does: specific indefinites classically undergo object shift and object shift forces specific readings of weak quantifiers in Dutch (see e.g. Broekhuis 2008:219). Generics, however, are more challenging for theories that appeal only to object shift. A DP that is interpreted as a generic must undergo Object Shift in Dutch (Broekhuis 2008:221), but cannot be doubled by an OM in Amharic.

- (27) dzib ahiyya-n yi-bäll-(#aw)-all.
 hyena donkey-ACC 3MS.S-eat.IMPF-(#3MS.O)-AUX.3MS.S
 NOT: ‘Hyenas eat donkeys.’ (OK as: ‘a hyena is eating a specific donkey’)

However, we can easily explain this by once again appealing to crossover constraints. Generics—usually expressed by bare plurals in English—do trigger crossover effects in English (see ((28)a) versus (28)b) and thus their Amharic analogs are not expected to be licit with an OM under our approach.

- (28) a. ?*Their mothers love children.
 b. Children are loved by their mothers.

The broad range of data presented in this section thus supports our claim that the restrictions on clitic doubling in Amharic follow from the same principles that give crossover in languages like English.¹⁴

¹⁴ Another classic instance of weakest crossover is that pronouns can be bound by operators in cleft constructions and nonrestrictive relative clauses, although not in questions. Our prediction then is that OMs should be possible doubling object gaps in clefts and nonrestrictive relatives in Amharic. This is clearly true; see Leslau (1995:85ff and

2.4 OMs and Crossover across Languages

At this point an apparent tension arises between our view defended here and previous analyses of clitic doubling in I-E languages like Spanish, Greek and Bulgarian. Previous literature crucially argues that examples like the ones in (29) are good, where a clitic can double a quantified object.

- (29) a. O Petros (to) epestrepse [tu idioktiti tui] [to kathe aftokinito] xtes to vradi
 The Peter.NOM 3NS.ACC returned the owner.GEN his [the every car] yesterday the night.
 Peter returned to its owner every car last night. (Gk, Alexiadou and Anagnostopoulou 1997)
- b. Ivan (i) izprati [nejnija Cek] [na vsjaka Zena] vCera.
 Ivan 3FS.DAT sent her check to every woman yesterday
 Ivan sent her check to every woman yesterday. (Bulgarian, Harizanov 2014:1054-1055)

Moreover, this clitic doubling is taken to ameliorate weak crossover violations, in that a quantified DP that follows another object can bind a pronoun inside the first object if and only if it is doubled by the clitic (see also Suñer 1988:421-423 for Porteño Spanish). Harizanov uses this fact to argue that the clitic is essentially an instance of the quantified DP itself in a higher (A-) position, from which it c-commands the first object—not an intrinsically pronominal element, as in our proposal (see also van Urk (2015), (2016) for the same idea). With this in mind, two anonymous reviewers ask whether Greek and Bulgarian have quite a different kind of clitic doubling from Amharic.

Based on what we have been able to determine, the answer is no: Amharic, Bulgarian, Greek and Spanish are more alike than they are different in these respects. Native speaker linguists tell us that there are cases in which clitic doubling of a quantified DP is degraded or totally out in Greek ((30)) and Bulgarian ((31)) too.

- (30) a. *S' aftin tin xora, i kivernisi ton-voihai ton kathenan se anagi. (Greek, EA, p.c)
 In this the country the government 3MS.ACC-helps the everyone in need
 'In this country the government helps everyone in need.'
- b. *Den ton idha kanenan stan avli (EA, p.c.)
 not 3MS.ACC saw-1S.S anybody in yard
 'I didn't see anyone in the yard.' (a homeowner investigating a suspicious sound)
- c. *Ti to magirepses? (Anagnostopoulou 1994: 174)
 what 3NS.ACC cook.2S.S
 'What did you cook?'
- (31) a. *Maria go vidja vsekigo/ vseki student v centyr-a na grad-a. (TK, p.c.)
 Maria 3M/NS.ACC saw everyone/every student in center-DEF of town-DEF
 'Maria saw everyone/every student in the town center.'
- b. Ivan ne (*go) vidja nikogo v koridor-a. (TK, p.c.)
 Ivan not 3M/NS.ACC see anyone in hallway-DEF
 Ivan did not see anyone in the hallway.
- c. Kakvo (*go) kupi ot magazin-a? (TK, p.c.)

105ff.) for examples. However, OMs double object gaps even in restrictive relatives in Amharic, so these OMs might be resumptive pronouns rather than clitic doubles of a null operator in a movement construction.

what 3M/NS.ACC bought from store-DEF
 'What did you buy from the store?'

So there are clearly restrictions on when quantified DPs can be doubled by a clitic in these languages too, of the sort that our analysis is designed explain. Furthermore, familiar gradations arise when it comes to different forms of universal quantification: for example, (31)a in Bulgarian becomes good if 'every student' is replaced with *vsicki-te xora* 'all-DEF people' and the plural clitic *gi* is used in place of *go*. This is very much like the Amharic contrast in (22). Similarly, although neither Greek nor Bulgarian allows clitic doubling with non-D-linked *wh*-phrases, both allow it with D-linked *wh*-phrases (Anagnostopoulou 1994:174-176, Franks and King 2000:254). The situation in Porteño Spanish is very similar, according to Suñer's (1988) classic study: clitic doubling is bad with a singular distributive universal quantifier (p. 411), a negative phrase (p. 396), and a non-D-linked *wh*-phrase (p. 391), among others.¹⁵ Overall, then, there seems to be little difference between Amharic, Spanish, Greek, and Bulgarian here.

This leads us to an alternative interpretation of the important data in (29): we claim that the clitic doubling in these examples coerces the quantified DP into a more referential, less truly quantificational reading. When the DP is not quantificational, it is not subject to the Crossover Condition, so it can be interpreted as referring to the same thing as the clitic for essentially the same reason that an R-expression can be (see section 2.5). For us, then, clitic doubling ameliorates crossover in (29) not because the QP undergoes A-movement, as in the previous analyses, but because it makes the examples into a form of weakest crossover. (We also point out that clitic doubling in ((29)b) is not accepted by all Bulgarian speakers: Todor Koev, an anonymous reviewer of Harizanov's article, and one of Harizanov's five speakers consider this bad (see Harizanov 2014:1055 n.24). The variation could be seen as variation in speaker's willingness to coerce a referential interpretation out of what is lexically a quantified DP.)¹⁶

Suñer (1988:422) makes what we consider a very important further observation about the Spanish data. She shows that doubling a quantified object in an embedded clause voids weak crossover even if the bound pronoun is inside the subject of the matrix clause. This is not predicted by the Harizanov/van Urk interpretation of the phenomenon, since the matrix subject is clearly higher in the structure than the A-position marked by the clitic in the embedded clause. However, it is compatible with our interpretation: clitic doubling forces a referential reading of the doubled DP, so scope is not an issue, and the counterinterpreted pronoun can be essentially anywhere in the sentence (pace Condition C).

For essentially the same reason, we are also cautious about claims in the literature that clitic-doubled DPs have wide scope with respect to quantified subjects in examples like (32), whereas non-clitic doubled DPs typically have narrow scope. Here again our interpretation is that clitic doubling imposes a referential reading on 'two books', for which the issue of syntactic scope does not arise per se. Referential readings of both definite and specific indefinite DPs are, however, semantically equivalent to assigning those DPs widest scope, so it is not surprising that the observed data is often described in scopal terms.

(32) Tres estudiantes los leyeron dos libros. (Spanish, Gutiérrez-Rexach 1999: 336)
 three students them read two books

¹⁵ Suñer (1988) also shows that a full range of quantifiers can be clitic doubled when they appear in a partitive construction like 'none of them', 'which of them' etc. Gutiérrez-Rexach's (1999) thorough semantic discussion of what quantified expressions can and cannot be doubled in Spanish reaches essentially the same conclusion, in our view: in the end, his most robust generalization is that all simple quantifiers can be doubled when they invoke a particular set known from context—either explicitly, as in partitives, or implicitly—but not otherwise. (This overrides his earlier semantic generalizations based on the semantic properties of different kinds of quantifiers.) We assume that these facts are compatible with our theory, the partitive phrase making the DP as a whole more referential, but we do not go into the special syntactic and semantic issues raised by partitives here.

¹⁶ Note, however, that the instances of [(D) every N] that are clitic doubled in (29) are still morphologically singular, unlike universals of the *all (the) Ns* type. We do not pretend to have gotten to the bottom of exactly what expressions are subject to the Crossover Condition across these languages and others and why; singular versus plural and distributive versus collective are not the only factors. We leave that potentially difficult task to others.

‘Three students read two books.’ (=There are two books which three students read)

The data available so far thus suggests that Greek, Bulgarian, and Spanish are essentially like Amharic in the respects that are most crucial to our analysis, although we will ultimately defer to experts in these languages to confirm this over a full range of data. If so, then the behavior of true clitic doubling is encouragingly uniform in this respect over a range of languages, even though the languages differ in various other respects (for example, when it comes to animacy and specificity conditions).¹⁷

2.5 OMs and Binding Theory

Next we extend the idea that doubling clitics count as pronouns into the domain of Binding Theory. The key effect we want to derive by doing so is that an OM cannot double a reflexive anaphor in Amharic, as shown again in (33)a. In contrast, the anaphor is fine if it is not doubled ((33)b).

- (33) a. *Lämma ras-u-n gäddäl-äw.
Lemma.M head.M-his-ACC kill.PF(3MS.S)-3MS.O
Lemma killed himself.
- b. Lämma ras-u-n gäddäl-ä
Lemma.M head.M-his-ACC kill.PF-3MS.S
‘Lemma killed himself.’

Clitic doubling of a reflexive is also often barred in Greek; Elena Anagnostopoulou (p.c.) offers the example in (34).¹⁸

- (34) O Janis (??ton) peripiithike ton eafto tu prin vgi ekso.
The Janis 3MS.ACC took.good.care.of the self his before he went.out
‘John took good care of himself before he went out.’

(In contrast, Bulgarian and Spanish have special reflexive object clitics, so they are not relevant to this point—but see note 20 for a possible extension.) The intuition that we develop is that (33)a and (34) are bad with the clitic because the clitic is a pronoun, and as such it creates a condition B violation when it is forced to corefer with the local subject by virtue of its relationship to an anaphoric object.

However, there are potential problems as well as opportunities for the idea of applying Binding theory to structures that include a pronominal doubling clitic. The most obvious problem is the fact that a

¹⁷ For example, animacy conditions on clitic doubling are prominent in the literature on Spanish (and Romanian), though animacy is not a major factor in Amharic (Kramer 2014:601), Greek, or Bulgarian (Harizanov 2014:1055). Even in Spanish, the importance of animacy may have been overemphasized: see Suñer (1988:399-400) for examples of inanimate direct objects doubled by clitics. Animacy effects are also variable across the Bantu languages (Marten and Kula 2012). Thus, when an anonymous reviewer asks whether animacy restrictions on clitic doubling can be captured by our analysis, we want to emphasize that these seem to be only a relatively minor factor in clitic doubling, viewed crosslinguistically; their importance in the literature is partly an artifact of where the literature began. The loose and variable character of the animacy restrictions discovered so far indicates that the true nature of these effects is not yet well-understood. We add, though, that if clear grammatical animacy effects on clitic doubling are ultimately attested in some languages, it should be fairly straightforward to build them into our account by having *v* probe for an animate DP only (see Kramer 2014:624-625 for one implementation of this idea for Amharic indirect objects, and Coon and Preminger to appear for a similar, independently-motivated proposal).

¹⁸ Iatridou (1988) gives examples of this form (e.g., with the verb ‘hate’) which are grammatical, but Elena Anagnostopoulou (p.c.) conjectures that in these *ton eafto tu* has a literal nonreflexive meaning, something like ‘his true self’ or ‘his personality’. Similar issues arise in Amharic and need to be controlled for: *ras-u* is literally ‘his head’, and it can also be doubled by an OM when it has its literal meaning—a meaning not very plausible in (33a).

pronominal clitic can be coreferential with an R-expression (ordinary DP) inside its c-command domain in ordinary doubling examples like (1)c and (35) in Amharic.

- (35) Läm̄ma Aster-in ayy-at
 Lemma.M Aster.F-ACC see.PF(3MS.S)-3FS.O
 ‘Lemma saw Aster.’

If clitics are intrinsically pronominal and are interpreted as such at LF, as we claim, why aren’t these examples violations of Condition C of the Binding theory? A similar issue arises with examples in which an OM doubles a nonanaphoric pronoun, as is possible in Amharic as in other languages:

- (36) Läm̄ma issu-n gäddälä-w
 Lemma.M he-ACC kill.PF(3MS.S)-3MS.O
 ‘Lemma killed him.’

(36) is at risk of violating Condition B of the Binding theory (as an anonymous reviewer reminds us), on a par with **He criticized him*, since the pronoun in object position is bound by the doubling clitic within the same clause. It may seem like it will be difficult, then, to have Binding theory apply to the OM when we want it to (for (33)a) but not when we don’t want it to (for (35) and (36)).

Let us start by considering the more problematic-looking examples. In fact, a way of addressing them is at hand. Recall that we said above that the D in Spec *v*P must always be referentially dependent on the object DP it is in a chain with, as stated in (18). Now if D is referentially dependent on the object, it follows that the object DP cannot also be referentially dependent on D. If it were, there would be a circularity in referential dependence, and this has been thought to be impossible since Higginbotham (1983: 404-405), based on the badness of examples like **[His_i wife]_k still loves [her_k husband]_i*; (see Safir 2004b:53-54 for more recent discussion). We make this explicit in (37).

- (37) If X is referentially dependent on Y, then Y cannot be referentially dependent on X.

This then will give us a way out of the seeming problems concerning (35) and (36).

First of all, (37) addresses a so-far-unnoticed problem concerning examples like (33)a: Why isn’t (33)a grammatical with a meaning like ‘Lemma killed him (him≠Lemma)’? This would be possible if ‘himself’ took the clitic pronoun D as its antecedent, and D referred to someone other than Lemma. But (33)a cannot mean this, and (37) tells us why: it is simply impossible for the anaphor to be anteceded by the clitic, given that the clitic is referentially dependent on the anaphor, in accordance with (18).

Now by the same token, the clitic pronouns in (35) and (36) also cannot be contemplated as antecedents for the R-expression or strong pronoun in object position. But if D is not a possible antecedent for the pronoun or R-expression, then the examples do not violate Condition B or Condition C, given that these conditions rule out direct referential dependence, but not coreference that might arise for other reasons—a distinction known to Binding Theoreticians since (at least) Evans (1980); see also Reinhart (1983: Ch7), Safir (2004ab), and Büring (2005: Ch.6). For example, Safir (2004b: 40) shows that (38)a is ruled out by Condition C when it appears in isolation, but the same sentence is fine in the context shown in (38)b (after Evans 1980).

- (38) a. *Even O.J. expects O.J. to be acquitted.
 b. Everyone expects O.J. to be acquitted. Mary expects Peter expects...
 Indeed even O.J. expects O.J. to be acquitted.

In normal neutral contexts like (38)a, the second instance of *O.J.* is taken to be referentially dependent on the first. (38)a then runs afoul of Condition C, which blocks an R-expression from being referentially dependent on a c-commanding DP. Moreover, whenever referential dependency is ruled out by Condition

B or C, there is a pragmatic expectation that the two DP in question do not corefer (Safir’s (2004b:26) Pragmatic Obviation). But this expectation of non-coreference is crucially pragmatic, not grammatical (cf. Reinhart 1983), and as such it can be overturned by other factors. For example, in the special context in (38)b, the second instance of *O.J.* in the last sentence is not referentially dependent on the first instance of *O.J.* in that sentence, but rather on the *O.J.* in the first sentence of the discourse, because of the strong parallelism among these sentences. Therefore, there is no direct referential dependence between the two instances of *O.J.* in the last sentence in (33)b for Condition C to rule out, and they can corefer.

We claim that clitic doubling sentences like (35) are similar, except in this case referential dependence of the R-expression on the pronoun is blocked by (37), and the special factor that overrides a pragmatic expectation of disjoint reference is the strict syntactic licensing principle in (18). Therefore, the clitic and the DP can (and must) corefer in (35).¹⁹ Moreover, Condition B has the same grammatical status as Condition C (see Safir (2004b:ch.1), Büring (2004:ch.6)): it too regulates direct referential dependence, not coreference per se, and apparent exceptions appear in contexts analogous to (38)b. By the same token, the coreference between the two pronouns in (36) that is forced by (18) is not forbidden by Condition B. In short, the fact that the D in (35) and (36) does not constitute an antecedent for the pronoun or R-expression in object position, such that there is no violation of condition B and C, is simply the converse of the fact that the D in (33)a does not constitute an antecedent for the anaphor in object position which could license it for condition A. This then is a coherent picture of the anaphoric relationships that can hold within chains that consist of a pronoun created by Reduce and some other DP.

Now we can turn to the badness of (33)a and (34), where a pronominal clitic doubles an anaphor, under the interpretation in which both are referentially dependent on the subject, giving the anaphor the local antecedent that it needs. In other words, why isn’t ‘Lemma him-killed himself’ possible meaning ‘Lemma killed himself’? This is a different sort of issue than the ones considered so far in this section, because in this case the clitic-DP chain takes an antecedent outside of that chain.

The details of course depend on the particular version of Binding Theory one adopts. For a classically framed, Chomsky (1981)-style Binding theory, the result is fairly straightforward. A lingua franca version of this is given in (39).

(39) A pronoun cannot be referentially dependent on a DP that c-commands it in the same clause.

Since the clitic D in Spec *v*P created by Reduce has phi-features, but no intrinsic descriptive content and no special reflexive feature (note that it is used in many nonreflexive sentences, including (1)b), it qualifies as a pronoun, we claim.²⁰ As such, it is subject to (39). But this is violated in (33)a and (34) on

¹⁹ In addition, one probably needs to say something to make sure that it is not too easy for an example like ‘He thinks Mary likes John’ to avoid Condition C by having ‘he’ be referentially dependent on ‘John’, rather than the other way around (especially since our (16) does not block this by fiat, as Safir’s version does; see note 10). This can be done by adopting Büring’s (2005:121) Have Local Binding principle, which favors binding dependencies that are upward and local wherever possible with the intended interpretation (see also Safir’s (2004b:47) Preferred Covaluation principle; both are descendants of Reinhart’s (1983) seminal idea that language favors bound variable anaphora where possible). As a defeasible preference, this can be overridden by certain other factors—crucially including (18), on our view—but not merely to escape conditions B and C. (Rather, condition B/C violations should be avoided by using an anaphor rather than a pronoun, or a pronoun rather than an R-expression.)

²⁰ An anonymous reviewer challenges the plausibility of this claim, that an anaphor reduces to a D head that is not anaphoric but rather pronominal. But the Greek example in (34) supports this, in that the reflexive expression *ton eafto tu* contains the ordinary determiner *ton*; this is transparently the same as the Reduced form *ton* (the clitic), and that is manifestly interpreted as a pronoun elsewhere. The DP as a whole has special anaphoric features, no doubt, but they are not, we claim, on the D head. D heads are less explicit (more often covert) in Amharic than in Greek, but there is no reason to think that Amharic is any different. The anaphor *ras-u* has the form of a possessed noun, and presumably has the same (covert) determiner that other possessed nouns uncontroversially have in Amharic.

It is quite possible that there could be crosslinguistic variation on this, however. As mentioned in the text, some languages have special reflexive clitics, including Spanish and Bulgarian (and also many Bantu languages).

the intended interpretation: the clitic D ‘him’ is referentially dependent on the subject of the clause ‘Lemma’, giving a violation.²¹ In contrast, there is no such D in (33)b to rule the structure out, and the undoubted anaphor can take ‘Lemma’ as its antecedent with no problem.

As we did for the crossover effect, we should perhaps show that this result follows also on the best current versions of Binding theory. We do not attempt this in detail, in part because it is not so obvious which more recent version(s) to choose. But we do not foresee any serious difficulties in upgrading the account. For example, in the Reflexivity framework of Reinhart and Reuland (1993) conditions A and B are formulated by saying that a clause has a reflexive interpretation if and only if its predicate is reflexive-marked by a verbal morpheme or by ‘self’ marking on an argument of the verb. In these terms, it seems reasonable to say that an OM like ‘him’ in (33)a counts as a non-reflexive marker, contradicting any reflexive marking one might have gotten from there being a reflexive anaphor in the object position. Then (33)a has a reflexive interpretation but no reflexive marking (or inconsistent marking), which is a violation. Another contender is Safir’s (2004a) competition-based Binding theory, which avoids positing a distinct Condition B; rather, he says that a pronoun cannot have a given DP as an antecedent if it is possible to use a “more dependent” form such as an anaphor in the same position to get the same interpretation. In Safir’s terms, we could say that in (33)a the chain <D=‘him’, DP= ‘himself’> as a whole counts as a kind of discontinuous anaphoric strategy, and as such it is in direct competition with the trivial chain <DP= ‘himself’> in (33)b.²² (33)b is well-formed, has the intended interpretation, and its form of anaphora is intrinsically more dependent than the one in (33)a, assuming that the presence of ‘him’ in combination with the ‘self’ DP makes the whole less dependent. (This is analogous to the fact that pronoun+*self* forms are less dependent than *self+self* forms in Safir’s system; see Safir (2004a: 86-87).) Therefore, in this version (33)a is bad because it is blocked by (33)b.

In short, we do not take a firm stand on what version of Conditions A and B of the Binding theory is best, but we do assert that OM-doubling of a reflexive anaphor is (or should be) ruled out by whatever version ultimately wins out.²³ We see, then, that more than one condition applies to pronouns at LF, and each condition plays a role in explaining why some examples of doubling by an OM are ruled out. This result is not undermined by what might at first look like condition B or C violations holding between two members of the same chain, in grammatical examples like (35) and (36).

2.6 An extension: OMs and nominals that contain a bound variable

There is also one relatively novel effect that our account can be extended to cover. Among the class of definite DPs that can be doubled by an OM are common nouns with a pronominal possessor, as in (40).

- (40) Lamma lidz-ih-in ayy-äw
 Lemma.M child.M-your.M-ACC see.PF(3MS.S)-3MS.O
 ‘Lemma saw your child.’

Perhaps these are languages in which there is a +reflexive feature on D itself. +Reflexive clitics of this sort are of course perfectly fine in a clause interpreted reflexively. We leave development of this possibility to future research.

²¹ More specifically, there is a violation if condition B rules out coreference or referential dependence. It is not ruled out if condition B rules out only *direct* referential dependence of a pronoun on a nearby antecedent. Then (33a) could have a valid representation in which the D pronoun is directly referentially dependent on the anaphor in object position (cf. (18)), and the anaphor is directly dependent on the subject. In that case, the pronoun is referentially dependent on the subject via a chain of antecedence, but not directly so. Arguably this should indeed be allowed for reasons akin to the possibility of (38b) (Safir 2004b). If so, we need a more sophisticated Binding theory than (39) to get our result—such as one of the proposals sketched in the next paragraph.

²² Safir himself does not use the possibility of discontinuous anaphoric strategies—and including this in his system may raise technical issues—but plausible putative examples exist in his work on anaphora in (e.g.) Lubukusu.

²³ One would expect an OM doubling a reciprocal anaphor to be ruled out on similar grounds. However, this prediction cannot be checked in Amharic, because reciprocal verbs include the detransitivizing prefix *tä-* (Leslau 1995:61-62, Amberber 2002:70-75), and as such do not have direct objects that could be doubled by an OM.

However, something interesting happens when the subject of a sentence like this is a quantified DP. Then the OM is possible, but only if the possessor of the object is understood as some specific individual, known from discourse. Thus (41) with an OM on the verb cannot have the otherwise easily available interpretation that every person *x* loves *x*'s own child.²⁴

- (41) hullu säw lidʒ-u-n yi-wädd-(#äw)-all
 Every person child.M-his-ACC 3MS.S-love-(3MS.O)-AUX.3MS.S
 'Everyone loves his child.' (Bad with OM and bound variable anaphora to the subject)

We want to say that the badness of (41) is also a sort of crossover violation, in that it follows from a version of Safir's (2004b) Independence Principle in (16), which is designed to rule out ordinary crossover examples (among others).

In fact, the desired result does not follow immediately from (16) as stated, but it does follow from the extension of (16) given in (42), where the italicized phrase in brackets has been added.

- (42) Independence Principle (Revised):
 If X depends on Y, Y a bound variable [*or a DP that contains a variable bound outside DP*], then X [*or a DP containing X*] cannot c-command Y.

Conceptual justification for this addition is available within the Higginbotham-Safir notion of referential dependence. According to this view, if a DP X is directly referentially dependent on another DP Y, then any DP X+ that contains X is also referentially dependent on any DP Y+ containing Y, in the sense that the referential value of X+ cannot be computed without knowing what the referential value of Y+ is. This underpins Safir's own move from saying that X cannot c-command Y to saying that a DP that contains X cannot c-command Y (the other bracketed phrase in (42)); this is what enables his INP to rule out weak crossover cases as well as strong crossover cases. Our expansion in (42) is parallel to this.

Empirical support for the extension in (42) from outside the domain of clitic doubling comes from (43)a in English; this is deviant as compared to (43)b and (43)c.

- (43) a. ??*Every well-adjusted boy* accepts that her new husband loves his mother.
 b. John accepts that her new husband loves his mother.
 c. *Every well-adjusted boy* accepts that his mother is loved by her new husband.

In (43)a the quantified subject of the matrix clause binds a pronoun inside the direct object of the embedded clause. Meanwhile, the subject of the embedded clause properly contains a pronoun *her* that is intended to be referentially dependent on the object *his mother*. But this interpretation is bad; it has the flavor of a weak crossover violation. (42) explains why: the pronoun *her* is trying to be referentially dependent on the DP *his mother*, but *his mother* contains a variable bound from the outside (namely *his*, bound by *every well-adjusted boy*) and *her* is contained in a DP (*her new husband*) that c-commands the depended-on DP *his mother*. This adds up to a violation of (42). (43)b is a control sentence in which the depended-on DP *his mother* does not contain a bound variable, and it is better. (43)c is a second control sentence in which the depended-on DP is not c-commanded by the DP containing the dependent pronoun as a result of passivization; it too is better. Therefore the extended INP in (42) is empirically justified.

Now the extended INP in (42) also rules out (41) with the OM on the forbidden interpretation. The OM 'him' here is referentially dependent on the object DP 'his child' which it c-commands—and

²⁴ Two of our three consultants clearly get this effect, although one seems not to. Note also that Leslau (1995: section 36) has quite a few examples of this type, but none of them has a doubling OM.

necessarily so, by (18). However, ‘his child’ has a variable bound by a quantifier outside the DP, namely the subject ‘everyone’. Therefore, (41) is ruled out by (42) on a par with (43)a.²⁵

We take the new discovery in (41) to be rather significant, because it shows the fecundity of our clitic doubling analysis in extending to new data. In contrast, an account in terms of agreement would not predict this datum, and does not explain it. For example, there is no reason at all to think that ‘his child’ has different phi-features in (41) from ‘your child’ in (40), such that it cannot trigger third masculine singular agreement on the verb. Nor would an account purely in terms of object shift extend to (41), since it is perfectly possible for a DP that contains a variable bound by a quantifier to undergo object shift in Icelandic (G. Harðarson, p.c.) and Dutch. (44) is an example from Dutch (Broekhuis, p.c.).

- (44) ... dat iedereen zijn salaris waarschijnlijk -- wat later krijgt
 that everyone his salary probably somewhat later gets
 ‘...that everyone will probably get his salary a bit later.’

Rather, assuming that the OM is literally a pronoun and interpreted as such at LF is crucial to explaining this phenomenon, at least among the range of analyses currently in view. It thus increases the diversity of the examples that can be explained by our clitic doubling analysis and not by competing accounts.

This less-familiar observation also seems to be cross-linguistically robust. Our inquiries indicate that objects that contain a pronoun bound by a quantifier cannot be doubled by a clitic in Greek, Bulgarian, or Spanish either. This is shown by the examples in (45).²⁶

- (45) a. ??kanena pedhi den tin akoluthise tin mitera tu. (Greek, EA, p.c.)
 No child not 3FS.ACC follow the mother his
 ‘No child follows his mother.’
- b. Vseki (??ja) obica sobstvena-ta si majka. (Bulgarian, TK, p.c.)
 Everyone 3FS.ACC loves self-DEF POSS mother
 ‘Everyone loves his own mother.’ (clitic is ?? if ‘self’ is bound by ‘everyone’)
- c. Cada hombre (*1a) ama a su madre. (Spanish, L. Sanchez and J. Camacho, p.c.)
 Each man 3FS.ACC loves to his mother.
 Every/each man loves his mother. (bad with clitic on the bound variable reading)

This further supports our hypothesis that clitic doubling in Amharic is not something fundamentally different from clitic doubling in the European languages.

2.7 Summary

In this section, we have shown that the restrictions on what objects can be doubled by an OM cannot readily be explained if the OM is simply a realization of ordinary object agreement, even if we assume that object agreement is only possible if it is fed by object shift. In contrast, the restrictions can be

²⁵ We thank Ken Safir (p.c.) for discussion, and also an anonymous reviewer for helping us to avoid a misleading assumption in an earlier formulation of our account.

²⁶ For Greek, a precedent for our observation is Anagnostopoulou's (1994: Ch.2) generalization that "novel definites" cannot be clitic-doubled, since DPs containing a bound variable are one subtype of novel definites. For Bulgarian, we believe that Harizanov's (2014:1056) bad examples in his (41b) and (42b) are of the same type as our (43b), although Harizanov gives a different explanation for them--one that would not generalize to the badness of (43b). For Spanish, José Camacho and Liliana Sanchez (p.c.) add that analogs of (45c) in which the object is left- or right-dislocated do allow a bound variable interpretation. This then is another interesting difference between true clitic doubling and clitic dislocation constructions worthy of future consideration (compare notes 8 and 13).

explained in terms of well-known principles if we say that the OM is a pronominal clitic that is interpreted as a pronoun at LF. Then the observed restrictions follow from the Crossover Condition and Condition B of the Binding Theory (or the equivalent). In contrast, Condition C effects are not found, because Condition C effects involve a pragmatic condition, and the licensing condition in (18) overrides it. The Crossover Condition can also be used to draw some rather fine distinctions in the data, explaining why true quantifiers cannot be doubled, whereas certain near analogs can be, and extending to explain why definite DPs that contain a bound variable cannot be bound by an OM.²⁷

Hopefully, then, our readers are now convinced that our particular version of clitic doubling sketched in (3) has merit for bringing a rather rich array of data under analysis. If so, they will now want to know how such derivations and representations are possible. Thus we turn next to fleshing out this derivation, and facing the theoretical issues that it raises.

3. The Derivation in Detail

In this section, we begin by walking through the analysis for the base case of an OM associated with a direct object (Sections 3.1 and 3.2), providing motivation for the individual components of the analysis and making some comparisons to related proposals. We then identify some important consequences for linguistic theory and typology that follow from our assumptions in Section 3.3.

3.1 OM with direct object: Narrow Syntax

A typical datum is in (46), where the OM doubles the direct object *s'ähafi-wa-n* ‘the secretary.’

- (46) s'ähafi-wa-n i-fällig-at-allä-hu
 secretary-DEF.F-ACC 1S.S-want-3FS.O-AUX-1S.S
 ‘I will look for (lit. ‘want’) the secretary.’

We propose that the generation of the OM in sentences like (46) happens in five broad steps.

- (47) Step 1: Agree between ν and DP
 Step 2: DP moves to Spec ν P
 Step 3: DP undergoes Reduce
 Step 4: Reduced DP undergoes Spec-Head Merge to ν
 Step 5: The copies of the DP are interpreted/realized at the interfaces

Before describing each step in more detail, we comment on how this derivation overall compares to influential proposals from the previous literature on clitic doubling. Our view is not radically different from these predecessors, but the differences are not trivial either. For example, we take from Sportiche (1996) the idea that movement to a specifier position, akin to object shift in Germanic, is involved in clitic doubling. However, for Sportiche the movement is to a novel kind of position, the specifier of a Clitic Phrase, and the clitic itself is base-generated as the head of this phrase. Uriagereka’s (1995) “big DP” hypothesis also uses movement, but he enriches the base structure in a different way, by assuming that the object originally consists of one DP generated inside the projection of another D. As a result, one D can

²⁷ An alternative analysis for Amharic is Eilam’s (2009), who proposes that the semantic restrictions on doubled objects can be explained if doubled objects are all topics, and topics cannot be non-referential, quantificational, etc. However, this alternative does not explain all the restrictions: it leaves open why ‘which NP’ can be doubled but not ‘what’, for example (see Eilam 2009:224). It also does not fit well with research on topics in Amharic (Demeke and Meyer 2007), which claims that all topics in Amharic are at the left periphery, whereas doubled objects are not (see (5)). In addition, native speaker linguists report that adding an OM can result in a contrastive focus interpretation for the doubled object rather than a topic interpretation (Haile 1970, Demeke 2003:Ch.4). It is even grammatical for an OM to double a definite DP that is the answer to a *wh*-question -- a clear case of doubling a focused DP. Therefore, the range of effects we have studied here cannot all be derived from the idea that all doubled DPs are topics.

move to join with the verb, while there is still a complete DP with an overt D head left behind in the object position. A drawback to this view is that there is little independent motivation for the existence of such “big DPs” in other syntactic positions, with a second D head appearing inside the DP itself.

Our proposal is different from these forerunners in two important ways. First, and most importantly, it is different in that the clitic is interpreted as a pronoun distinct from its DP associate at LF. Sportiche and/or Uriagereka-style accounts could perhaps take this new assumption onboard as a friendly amendment and achieve the same major empirical results. Second, we get the fact that clitic doubling structures have two D-like elements—the clitic itself and the D inside its DP associate—not by semi-ad hoc enrichments of the structure, but by the copying that is part and parcel of movement within the minimalistic framework (Chomsky 1993). Sportiche and Uriagereka-style proposals both enrich the structure—either the verbal spine (Sportiche) or the internal structure of DP (Uriagereka)—in ways that may not be independently motivated or cross-linguistically valid, so as to get two positions where D-like material can be base-generated (other proposals along these lines include Alexiadou and Anagnostopoulou 1997, Anagnostopoulou 1999, Roberts 2010, and Nevins 2011, among others). In contrast, (47) gets the fact that there are two D (like) elements directly out of the copying intrinsic to movement, which any cliticization-type account makes use of, by definition. Current theories of how movement chains are realized are more flexible than before, so that a derivation like (47) is possible. Given that it is possible, we consider it an elegant way to get the necessary representations at LF and PF.

The prior theory of cliticization that (47) grows out of most directly is Matushansky’s (2006) m-merger theory, as developed and amended by Harizanov 2014 and Kramer 2014 (van Urk 2015, 2016 is also in this same family of analyses, although it uses partial spell-out of a copy instead of m-merger of a copy with a verbal head). Our version has two crucial differences. First, Reduce and Spec-Head Merge are taken to be two distinct steps in the derivation (both also distinct from Object Shift). Second, at least Reduce happens in the syntax proper, not at PF. These differences are essential so that there will be a D^o interpreted as a pronoun in Spec *v*P by LF, so that restrictions on clitic doubling can be explained in terms of the Crossover Condition and Binding theory, in the ways we discussed in Section 2.²⁸

With these comparisons in mind, let us look more closely at the individual steps of the derivation in (47). In (3), we described the first step of the analysis as movement of the DP object to Spec *v*P. However, in standard minimalism (Chomsky 2000, 2001), movement of an XP to the specifier of a functional head F generally does not occur unless Agree holds between F and XP. Indeed, many recent approaches to clitic doubling have argued that this type of movement is licensed by Agree (see e.g., Béjar and Rezac 2003; Rezac 2004, 2008; Roberts 2010; Nevins 2011; Preminger 2011), and there is good empirical evidence from Amharic that an Agree relation is in fact established between *v* and DPs like ‘the secretary’ in (46). This evidence comes from intervention effects: a higher goal for *v* blocks the OM from being associated with a lower goal, in line with the usual locality restrictions on Agree (Demeke 2003, Eilam 2009, Baker 2012a, Kramer 2014). For example, when both a goal argument and a theme are present, the OM must be associated with the goal, not the theme, as in (48)a. Similarly, in (48)b, the OM can only be associated with the source argument of ‘rob’, not the theme argument.

- (48) a. *Girma* *lä-Almaz* *mäs’haf-u-n* *sät’t’-at* (**sät’t’-äw*)
Girma.M DAT-Almaz.F book-DEF.M-ACC give(3MS.S)-3FS.O give(3MS.S)-3MS.O
 ‘Girma gave the book to Almaz.’ (Kramer 2014:600)
- b. *Lämma* *Aster-in* *gänzäb-u-n* *särräk’-at*. (**särräk’-äw*)
Lemma.M Aster.F-ACC money-DEF.M-ACC rob(3MS.S)-3FS.O rob(3MS.S)-3MS.O
 ‘Lemma robbed Aster of the money.’ (Baker 2012b:49-50)

²⁸ This also differentiates our view from Anagnostopoulou’s (2003) analysis of clitic doubling as movement of the object’s features to *v* or T. The intuitions that drive her proposal are similar to ours, but our version has the advantage of assigning a well-defined A-position to the clitic in (the vicinity of) Spec *v*P. This allows us to apply conditions on pronoun interpretation to it at LF in a relatively straightforward way.

Given intervention effects like these, we conclude that there is an Agree relation between ν and the OM's associate. We take this to be a precondition to the movement of the object DP to Spec ν P.²⁹

In not allowing an OM to double the theme in the presence of a goal, Amharic seems to be significantly different from many I-E languages, which do allow the theme to be doubled by an OM when there is a goal present. (49)a is an example from Greek (Anagnostopoulou 2001).

- (49) a. (To) edosa tu Petru to vivlio
 3NS.ACC gave.1S.S the.GEN Peter.GEN the.ACC book.ACC
 'I gave (it) Peter the book.' (Anagnostopoulou 2001:15)
- b. (*Tin) didaksa ta pedhia tin grammatiki ton arxion ellinikon
 3FS.ACC taught.1S.S the.ACC children.ACC the.ACC grammar the.GEN ancient Greek
 'I taught (it) the children the grammar of ancient Greek.' (Anagnostopoulou 2001:12, 17)

This contrast might make one think that Amharic OMs show a kind locality that is characteristic of Agree, whereas Greek OMs show a different kind of locality because they involve D(P) movement instead of Agree. However, examples like (49)b, also from Anagnostopoulou (2001), suggest that this would be a wrong conclusion. Anagnostopoulou observes that a small number of verbs like 'teach' in Standard Greek (and a larger number in Northern Greek) take two accusative objects rather than one genitive (=dative) object and one accusative object. With these predicates, only the higher of the two arguments (the goal) can be doubled by an OM on the verb—just as in Amharic.

To capture the clear parallel between (49)b and (48), we want to say that Agree and DP movement are both involved in both languages. The goodness of (49)a then suggests that the genitive goal is different enough in its features from the accusative theme that ν can see the theme past this sort of goal. For concreteness, we can say that 'Peter' in (49)a bears the feature [GEN] (or maybe P), and ν can probe for [GEN] (or P) separately from [ACC] (or D). Then there is no intervention between ν and the theme in (49)a, although there is in (48)b and (49)b where the two internal arguments have exactly the same features. We then complete the account by stipulating that "dative" case in Amharic in examples like (48)a does not count as a feature distinct from [ACC] (or D). In essence, this means that dative in Amharic is weaker than dative/genitive in Greek. This seems to be true, in that the goal in (48)a is only optionally dative; it can also be accusative *Almaz-in* in free variation, whereas dative/genitive does not alternate freely with accusative in the relevant I-E languages. The fact that the precise features of both probes and goals matter for this effect confirms that Agree is at work. (We thank Elena Anagnostopoulou for generous discussion of these patterns.)³⁰

We move on now to Step 2 in (47): the movement of the Agreed-with DP to Spec ν P. As mentioned above, this is a common element in many modern treatments of clitic doubling. In Section 2.1, we mentioned that the specificity restrictions on the associate can be very similar to the restrictions on object shift in (for example) Germanic, and these restrictions are evidence in favor of movement of the associate to Spec ν P (see also section 2.3). In Section 2 as a whole, we showed that an object shift analysis does not fully characterize the set of DPs that can be doubled (e.g., reflexive pronouns and universally quantified DPs are specific but cannot be doubled), deriving the additional restrictions from

²⁹ An anonymous reviewer asks whether an OM on a matrix verb ever doubles the subject of an embedded predicate in an ECM-type construction in Amharic, as should be allowed by the use of Agree (and movement) in our analysis. The answer appears to be no, simply because there is no ECM in Amharic: Amharic lacks verbs that take the kind of reduced TP complements that give rise to ECM in some other languages. Clause-like complements to verbs are essentially either finite CPs or verbal nouns which are most likely DPs (they receive case marking, take genitive subjects, etc.). Both clause types presumably have phase heads (C, D) which the matrix ν could not Agree across.

³⁰ Some Bantu languages allow an OM on the verb associated with the lower object (like Greek) but do not have a case difference between the two objects (as Greek does). Jenneke van der Wal (p.c.) suggests that OMs in these Bantu languages might be derived by pure movement, without Agree as a precondition. We do not rule out this possibility, but we do not pursue it here either, OMs in Bantu being an important topic in themselves.

the fact that there is a pronominal copy of the associate in Spec ν P. But specificity is still a necessary condition for doubling, so we maintain that object shift has a role to play in the analysis of clitic doubling in Amharic -- that it necessarily involves movement to Spec ν P. Indeed, many previous researchers have seen a connection between object shift and clitic doubling, including Sportiche (1996), Uriagereka (1995), Alexiadou and Anagnostopoulou (1997), Nevins (2011), and Suñer (2000).³¹

Our choice of Spec ν P as the landing site for this movement is mostly for concreteness (following e.g., Nevins 2011, Baker 2012a, Harizanov 2014, Kramer 2014) and for consistency with the object shift literature, where ν P is a normally assumed landing site for the shifted object, because only case marked objects move there (not PPs; see, for example, Broekhuis 2008:71-72, 119 on the landing site of “regular object” shift in Germanic). For Amharic, this assumption fits well with the fact that the OM surfaces on the main verb, even in the presence of auxiliaries, as seen in (46), for example. This suggests that movement in Amharic targets a relatively low functional head, below T and Aux, and not far above V itself—the region of clause structure where we expect to find ν . However, it is not crucial to our essence of our account that the landing site be Spec ν P as opposed to a position adjoined to ν P, or that it be Spec ν P as opposed to some other functional specifier along the clausal spine. Indeed, it seems that essentially the same account of clitic doubling should carry over to Spanish, Greek, and Bulgarian, and in those languages the clitic surfaces higher, roughly attached to T, with the result that doubling clitics are attached to the finite auxiliary verb (or higher restructuring verb) in the I-E languages, whereas in Amharic (and the Bantu languages) the OM is always on the main/participial verb that the doubled object is thematically related to. The only crucial thing is that the moved-to position c-command the moved-from position, and this is guaranteed by the standard conception of movement.

As for the optionality of clitic doubling with definite and specific indefinite DPs in Amharic, shown already in (1)a versus (1)c, we can think of it as akin to—ideally identical to—the optionality of these DPs undergoing object shift in Germanic (see e.g., Broekhuis 2008:11-12, 219). This typically is said to have a semantic/pragmatic effect, but one that is hard to pin down exactly (Broekhuis describes it as whether the DP is part of the focus of the clause or part of its presupposition). Amharic linguists talk about DPs doubled by OMs as being somehow “emphasized” (see e.g., Haile 1970, Demeke 2003), and part of what this seems to mean is that doubled DPs are more prominent discourse antecedents for pronouns in the nearby environment (cf. Leslau 1995:186, sec 41.14, Kramer 2014:604-605). We do not give a full account of these pragmatic/semantic effects here. Rather, we think of object shift in Amharic (and Germanic) as being triggered by an optional feature of the ν head—an EPP feature; see (57) below—which thereby creates a new syntactic structure. The Conceptual-Intentional interface then exploits this structural distinction for pragmatic purposes in ways that are hopefully rather systematic across languages (Chomsky 2001), but which we leave to others to explicate further.

Once a copy of the associate has moved to Spec ν P, it undergoes our distinctive Step 3: Reduce. Once again, we emphasize that it is crucial that this operation, which creates the OM/clitic, occurs in the syntax in our analysis, and not at PF as in Harizanov 2014, Kramer 2014, and van Urk 2015, 2016.³² If the reduction happened only at PF, then it would not cause the DP in Spec ν P to be interpreted as a pronoun at LF, and the explanations offered in Section 2 would be lost. We can state Reduce as follows:³³

³¹ See Section 3.3 on clitic doubling with subjects, which happens at T rather than ν , and Section 4.1 on clitics that do not put any semantic restrictions on the doubled DP.

³² An anonymous reviewer suggests that perhaps Reduce happens not in the narrow syntax, but at LF, prior to checking the Crossover Condition and Binding theory. That is a logical possibility, but it risks missing the fact that the effects of Reduce are also visible at PF, in that a D but not a whole DP shows up in the vicinity of ν (i.e. encliticized to the morphological verb). We follow here classical Y-theory type reasoning that if the results of an operation are visible at both PF and LF, then it takes place in the syntax, which feeds both. The alternative, that Reduce happens at LF and m-merger happens independently at PF, would have to make sure that one operation happens if and only if the other does in another component—not inconceivable, but clumsy and unattractive.

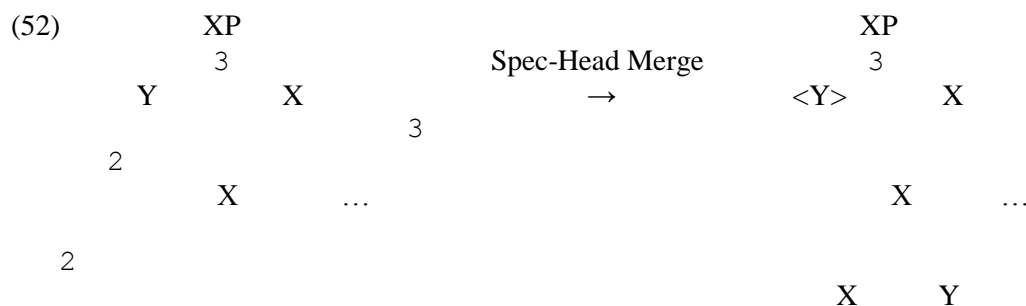
³³ An anonymous reviewer points out that our analysis makes a nontrivial assumption about chains: that they consist of multiple DP copies of what was originally one DP (or other phrase; cf. Chomsky 1993), not the assignment of multiple positions (“occurrences”) to what remains numerically the same DP, as proposed in Chomsky (2000). This

(50) **Reduce:** Given a phrase [_{XP} (... YP) X (ZP...)] delete YP (...) and ZP (...) to yield [X].

For example, in the derivations under consideration, Reduce takes a phrase headed by D (the DP in Spec *v*P) and deletes its specifier (e.g., a possessor) and/or its complement (an NP or NumP sister to D)—and indeed anything that might be adjoined to D—to give a minimal DP, consisting only of D itself. This is a novel operation for the syntax, but it is of a familiar sort. It is similar to the deletion that is standardly thought to apply to copies in a chain, and also in cases of ellipsis, except that it is partial deletion rather than complete deletion, in that it spares the head of the constituent in question (cf. van Urk 2015, 2016 on partial spell-out of a copy at PF). In our implementation, Reduce is triggered by the EPP feature associated by certain heads, including *v* in Amharic (see section 3.3 for details). As such, it only takes place in one particular copy of a movement chain; therefore the lexical content that (50) removes will always be present elsewhere in the representation, satisfying any need for the recoverability of deletion.

Step 4 Spec-Head Merge is the last step in the derivation that takes place in the narrow syntax. It takes the D head in Spec *v*P that results from Reduce and adjoins it to the nearby *v* head. From a syntactic perspective, this operation looks very familiar; it takes two syntactic objects and makes them into one, just like the syntactic operation Merge (and as suggested by the previous name *m-merger*; see Matushansky 2006:96 for discussion). We propose that the operation which unites the reduced D to *v* is in fact a species of Merge, and name it accordingly. Other types of Merge are generally triggered by features on a head, either selectional features which cause a complement to be merged, or EPP features which cause a specifier to be merged. Similarly, we propose that a feature causes Spec-Head Merge; we refer to this feature as [EPP-HEAD]. The [EPP-HEAD] feature on X is satisfied when a specifier of XP that is a minimal projection (i.e., a head) adjoins to X. We assume, following Chomsky’s (1986) notion of “structure preservation”, that it is not possible to adjoin a maximal projection to a minimal projection, so in order for [EPP-HEAD] to be satisfied the specifier must be minimal. This operation is defined in (51) and schematized in (52), with the ultimately unpronounced copy in angled brackets.

(51) **Spec-Head Merge**
Given a head X, and a head Y in Spec XP, merge Y to X with the result that Y adjoins to X



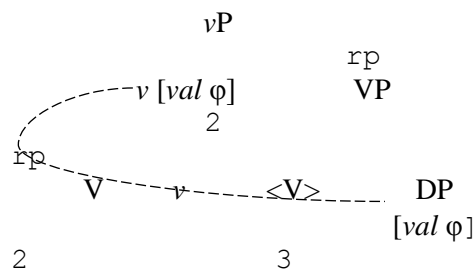
Like Reduce, Spec-Head Merge has been taken to happen at PF in previous treatments. Although for us this is a detail of implementation rather than a crucial assumption, there is some reason to say that even this final step happens in the syntax. It is well known that a complex head comprised of an OM/clitic and a verbal head can undergo head movement to a higher position. For example, in Porteño Spanish, the clitic moves along with the verbal head as a unit up to C in questions (Suñer 1988:406-407). This is what one would expect on an analysis that generates the clitic and attaches it to the verbal head as a syntactic operation; the resulting complex head can then undergo further syntactic operations (like head movement)

is indeed important to our analysis, since applying Reduce to the instance of DP in Spec *v*P makes it into a pronoun, but this does not automatically change the DP in the theta-position into a pronoun too; it remains an R-expression. Therefore the two DPs must count as numerically distinct. See section 4.3 for discussion of more complex chains.

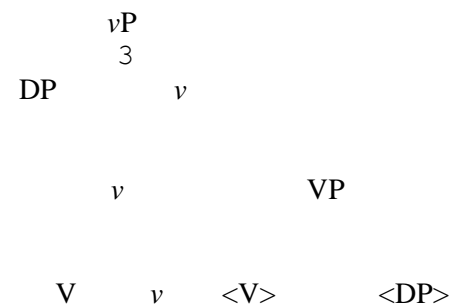
as needed.³⁴ However, this moving as a unit in the syntax is less expected if the clitic is formed and attached to the verbal head at PF. Matushansky (2006)—and, less explicitly, Harizanov (2014)—outline some assumptions about cyclic derivation according to which this is allegedly possible, but they seem artificial and problematic to us. For example, unlike traditional “freezing” of a syntactic constituent that has undergone Spell Out but still exists as a chunk opaque to the syntax, their m-merger requires syntax to manipulate a constituent that it did not build.³⁵ It seems best, then, to do all this in the syntax proper.

This then is what needs to be said about the narrow syntax derivation. There is independent evidence that *v* and the DP enter into an Agree relation (intervention effects) and that the DP moves to Spec *v*P (object shift, requiring or inducing specificity). Since (we assume) *v* has the feature [EPP-HEAD], the derivation will crash unless Spec *v*P undergoes Spec-Head Merge with *v*. However, in order for this to occur, the DP in Spec *v*P must undergo Reduce. This makes DP into D, which then undergoes Spec-Head Merge to *v*, resulting in the OM being attached to *v*. The derivation is shown in detail in (53), which follows Kramer 2014 in assuming that V has already moved to *v* (see also Roberts 2010:55). (Unpronounced copies are in angled brackets, as in (52).)

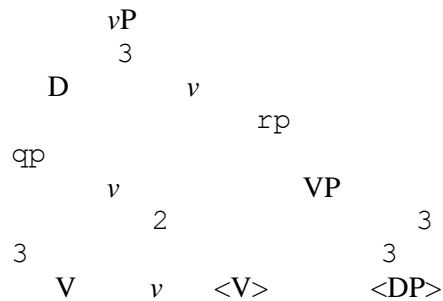
(53) a. Agree between *v* and DP



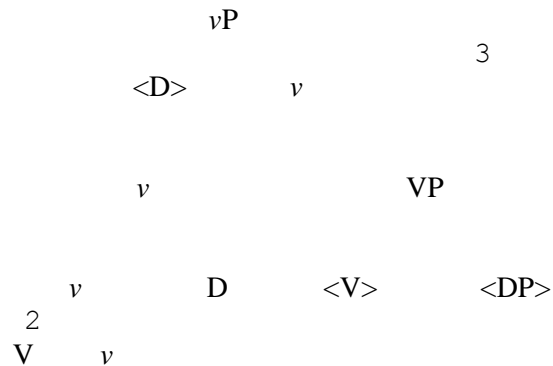
b. DP Moves to Spec *v*P



c. Reduce DP



d. Spec-Head Merge (*v*, D)



³⁴ One potential benefit of m-merger being at PF is that the traditional ban on excorporation falls out because the internal structure of PF-made constituents is unavailable for syntactic operations. However, see Roberts (2010:206-208) for recent evidence that this traditional ban may not hold up under closer scrutiny.

This argument assumes that V-to-C movement is a type of head movement that can occur in the syntax (as we tend to believe). If one believes instead that head movement happens only at PF, as some have claimed, then the door is more open to viewing Spec-Head Merger as a PF operation. Note however that V-to-C movement does seem to affect semantic/LF phenomena: for instance, negation has different scopes when it is carried along by head movement, such that *Won't anyone come early?* is not synonymous with *Will anyone not come early?*

³⁵ Thanks to Omer Preminger (p.c.) for bringing this observation to our attention.

Another crucial aspect of this derivation for the purposes of the present paper is that Spec-Head Merge leaves a copy of D in Spec ν P --- this is interpreted as a pronoun at LF leading to the restrictions on which objects can be doubled that we explored in Section 2. In the following section, we consider how (53)d interfaces with PF and LF so that the right copies get pronounced and interpreted.

3.2. OMs with Direct Objects at the Interfaces

The derivation in (53) contains quite a bit of “redundant” material: valued phi features on ν as a result of Agree as well as three related copies: (i) the lowest, theta-marked copy of the DP, (ii) the reduced copy of the DP in Spec ν P, and (iii) the reduced copy of the DP that is attached to ν . We devote this section to clarifying how PF and LF realize and interpret these copies and the associated phi features.

On the PF side, we assume Kandybowicz’s (2007) modification of Nunes (2004), according to which two copies are treated as distinct at PF if they are morphosyntactically non-isomorphic. As in Harizanov 2014 and Kramer 2014, the theta-marked DP in clitic doubling structures is morphosyntactically non-isomorphic from the other copies after Reduce has applied, since it alone is phrasal. Therefore, it is treated as a distinct copy at PF and realized morphophonologically. This accurately captures the fact that the lowest copy of an object shifted DP is spelled out in clitic doubling constructions, in which Reduce applies, but not in otherwise similar object shift derivations in Germanic languages, where Reduce does not apply.³⁶

The copy of D in Spec ν P and the copy that is adjoined to ν are morphosyntactically identical, yet it is the copy that is adjoined to ν that is morphophonologically realized at PF. In order to account for this, we propose that there is a PF requirement that the OM must be part of a complex head with ν , expressing the fact that the OM is a clitic on ν . Similar PF requirements have been proposed for clitics in Swedish and Danish (Embick and Noyer 2001:581) and for definite markers in Amharic (Kramer 2010:212). Realizing the copy adjoined to ν satisfies this PF requirement, whereas realizing the copy in Spec ν P would not. This is a common state of affairs: Bošković and Nunes 2007 argue that PF requirements can force the realization of a lower copy in a variety of environments across languages.

As for the phi features on ν as a result of Agree, we suggest that they are morphophonologically null for economy reasons (see Kramer 2014). As has been reported for many languages (see, e.g., Kinyalolo 1991, Carstens 2003, 2005, Rezac 2008), there is a strong tendency not to realize the same set of phi features more than once within the same complex head. Specifically, we adopt Kinyalolo’s (1991) Constraint (this version is based on the one in Carstens 2005:255):

(54) Kinyalolo’s Constraint: In a complex head, phi features on a lower head are not realized if they are predictable from phi features on a higher head.

(54) restricts realization to the highest head with the repeated set of phi features, and the clitic is higher than ν if we assume c-command in adjunction structures.³⁷ Moreover, it is empirically clear that it is the D which is realized as the OM, and not the ν with phi features. As Kramer 2014 shows, the OM is morphologically insensitive to tense/aspect/mood (unlike subject agreement), it is partially syncretic with

³⁶ Note that we are assuming here that all definite nominals in Amharic and other clitic doubling languages—including simple proper names—are in articulated structures including a D head, possibly null, and other material (cf. Longobardi 1994). One possible exception to this could be weak pronouns, which might consist of only a D head merged into the object position. Then object shift happens, but Reduce applies vacuously, since there is nothing but D in DP. In that case, the copy of D in Spec ν P and the copy inside VP are morphosyntactically identical, and we might say that the lower copy does delete. This could be a fine derivation for examples like (1)b, expressing the fact that there are no weak pronouns other than OMs in Amharic. (In contrast, OMs can double strong pronouns, as in (36), but we take it that those also have complex internal structure; see Déchaine and Wiltschko 2002 on pronouns with internal syntactic structure, and Leslau 1995:178 on plural marking in Amharic pronouns).

³⁷ In addition, Preminger (2011:69) has suggested that languages prefer to realize pronominal material, like the clitic, rather than functional material, like the phi features on ν . That may also be a relevant factor here.

possessive pronouns and determiners (not with other verbal agreement paradigms), and it cannot co-occur with another determiner (which Kramer 2014 analyzes as haplology triggered when there are two adjacent elements of the category D). Thus, the phi features of v and the D in Spec vP are realized as null at PF, whereas the D that is attached to v and the full DP in theta position are realized overtly.

Turning to how the copies are interpreted at LF, we assume again that the DP copy in the theta position is considered distinct from the other two copies – LF can see that it is structurally different (a maximal and not a minimal projection). The other two copies are morphosyntactically isomorphic, but we claim that LF only interprets the copy in Spec vP , not the copy adjoined to v , and, crucially, it interprets this D as a pronoun. We say that LF only interprets a bundle of D, phi features, reference features, etc., as a pronoun when that bundle is in an A-position. This is in order to distinguish pronouns, including those derived by Reduce, from pure agreement on a functional head; pure agreement might have all the same phi features that a pronoun has, but it is not interpreted as a pronoun because of its position. Our leading idea is that clitics are crucially different from pure agreement in exactly this way.³⁸ Here we can think of “A-position” as roughly the specifier or complement of a certain class of functional heads, including T, v and V, but not C, Focus or the like. The copy of D in Spec vP is in an A-position, then, but the copy adjoined to v is not, since it is adjoined to a head. This restriction presumably has its roots in Binding theory – namely, the traditional view that Binding theory concerns primarily phrases in A-positions. We therefore propose the following partial characterization of what is taken to be a pronoun at LF:

- (55) A syntactic element X is interpreted as a pronoun at LF if X is in an A-position, X has phi features, and X has no descriptive lexical content.³⁹

In contrast, we assume that the phi features on v and the D adjoined to v are not interpreted as pronouns at LF. Indeed, they are arguably not interpreted at all, on a par with phi features that are found within a verbal inflectional complex generally. This proposal fits well with the move away from feature interpretability towards feature valuation as the key component of syntactic features (Chomsky 2001), and it allows for LF to determine according to its own principles which features are (un)interpretable.

So far we have been focusing on relatively simple chains, with only two members, one in Spec vP and one in the theta-position of the object inside VP. It is natural at this point to ask—as an anonymous reviewer does—how (or if!) our principles of realization generalize to the larger chains that might be generated by more complex cases of movement, where a DP passes through Spec vP on its way to some higher position. Interesting issues do indeed arise here, but we defer them until section 4, where a relevant class of examples comes to the fore.

3.3 Consequences of the Analysis: Features and Typology

Our analysis assumes that Reduce and Spec-Head Merge are distinct syntactic operations that apply semi-independently. Since these two operations apply largely in tandem in Amharic clitic-doubling derivations, a natural question to ask is whether there is independent evidence that they can apply separately. We submit that there is some, although the typological picture is not complete.

It might seem like Spec-Head Merge cannot operate without Reduce since specifiers are phrasal and Spec-Head Merge takes a head as its input. However, weak pronouns can be simultaneously maximal and minimal, so we might see Spec-Head Merge attested without Reduce in any context where there is cliticization but no clitic doubling. This is attested, and may in fact be quite common. Many languages may have obligatory cliticization with object pronouns, but not with full object DPs, such as French, standard Italian, and some Bantu languages, including Lubukusu. Examples from Lubukusu are in (56).

³⁸ Alternatives might be possible. For example, one might say that a syntactic element is interpreted as a pronoun only if it has phi-features but no other features, e.g. no tense-aspect features. That could be another way of distinguishing pronominal clitic Ds from heads like T and Asp that bear phi-features as a result of Agree.

³⁹ In a Distributed Morphology approach to word formation, this can be phrased as “X has no root.”

- (56) a. N-a-**mu**-bon-a.
 1.s-PST-**1.O**-see-FV
 ‘I saw him.’ (Diercks and Sikuku 2013:1)
- b. N-a-(***mu**)-bon-a **Wekesa**
 1.s-PST-**1.O**-see-FV 1Wekesa
 ‘I saw Wekesa.’ (Diercks and Sikuku 2013:9)

Following Diercks and Sikuku’s (2013) analysis of Lubukusu, we propose that these languages lack Reduce and thus can only do Spec-Head Merge with elements that from the beginning are simultaneously heads (so they can do Spec-Head Merge) and XPs (so they can undergo A-movement). The two copies of the pronoun are morphosyntactically isomorphic at PF, so only the higher copy is pronounced.⁴⁰

Conversely, we can ask if there are derivations that have Reduce but not Spec-Head Merge. Unfortunately, this is the part of the empirical situation that is not entirely clear to us. What this would look like in contexts close to the ones we are focusing on here would be a language in which weak/clitic pronouns (pronouns that seem to be a single D head) appear relatively high in the clause and can be doubled by a full DP lower in the clause, but the weak/clitic pronoun does not form a single complex X^0 with the verb for purposes of syntactic head movement and the like. Perhaps since D is a weak pronoun it would still be a clitic in some phonological sense—either a simple clitic that leans on whatever happens to be next to it or a second position clitic of some sort—but it would not necessarily be attached to the main verb or verbal auxiliary. We do not know any crystal clear examples of this from the literature, and some have claimed that it never happens (Bošković 2015:4, for one; see also Franks and King 2000, who observe that the two Slavic languages that allow clitic doubling—Bulgarian and Macedonian—are the same two that have verb-attached clitics rather than second position clitics.).

However, we are reluctant to conclude that this can never happen at this point, since the matter has only been closely studied in a handful of language families, mostly of the Indo-European stock. There are several non-I-E languages that have been described as having clitic doubling where the clitic is not necessarily attached to the verb. In Yagua (Yaguan, spoken in Peru; Payne and Payne 1990), object clitics can attach to a range of categories. Warlpiri (indeed probably many Pama-Nyungan languages) has obligatory clitic doubling of all DPs in finite clauses, with the clitics in second position, not necessarily attached to the verb (Simpson 1991). Moreover, Warlpiri is known not to have truly quantificational DPs (Bittner and Hale 1995) or full DP anaphors (Simpson 1991:163). It is possible that this feature of the language is due at least in part to its ubiquitous use of clitics, the pronominal nature of which makes having nonreferential nominals problematic within the grammar of Warlpiri. Although the data on these non-I-E languages is still rather fragmentary, it seems that it would be premature to say that pronominal clitics involved in doubling must always merge with a verbal head. Therefore, we tentatively take the Reduce and Spec-Head Merge to be logically independent. If, however, it turns out that weak pronouns that do not merge with a particular functional head are never involved in doubling phenomena, then we could claim that Reduce happens to make cliticization possible, not to make movement to the specifier of vP possible as assumed immediately below.

Another use of Reduce might be to derive resumptive pronouns rather than pure traces in the tail positions of *wh*-movement chains wherever Delete cannot fully happen for reasons akin to the old ECP.

⁴⁰ In Lubukusu, the lower copy is pronounced when the object pronoun is emphatic, resulting in a very limited form of clitic doubling (Diercks and Sikuku 2013:26). Diercks and Sikuku speculate that, because the lower copy is focused, it is no longer isomorphic to the higher copy and so it escapes deletion, and we tentatively follow them in this. However, Jenneke van der Wal (p.c.) informs us that Bantu languages differ in whether they allow OMs to double an overt pronoun or not, so this option must not come from UG entirely for free. Clearly some special issues arise in languages that allow clitic doubling of pronouns only—including French (Kayne 2000: 164-165)—and they deserve closer study than we can give them here.

This arguably happens when, for example, the theta-position of a moved *wh*-phrase is inside a PP in a language like Hebrew (Shlonsky 1992). Comparing clitic doubling with resumptive pronouns in the light of Reduce would be a good area for future study, especially comparing Reduce to the idea that a gap-like resumptive pronoun is a partial spell-out of a full DP copy (Pesetsky 1998, van Urk 2015, 2016).⁴¹

Another relevant comparison is with the varieties of object shift found in Scandinavian. As is well known, object shift can apply to full DPs in Icelandic, but only to pronouns in the mainland Scandinavian languages (MSc). This suggests that *v* in the latter languages imposes a condition on the syntactic object that moves into its specifier, that it has to be a minimal category as well as a maximal category. However, this is not the result of Reduce, because the relevant object in MSc needs to start out as D head, not just end up as one (i.e., there is no doubling). So MSc is like French, Italian, and Lubukusu, not like Amharic, Spanish, or Greek in this sense. However, the requirement that the Spec *v*P be a head is not imposed on it by the needs of Spec-Head Merge, since pronouns in MSc are not clitics attached to the verb in the sense that they are in Romance languages. In particular, they are not carried up to C with the verb when the verb moves there in verb-second clauses, for example (see Thráinsson 2001, ex. 12a).

Beyond showing that the elemental subparts of the complex operation formerly known as “*m-merger*” can be empirically distinct as well as logically distinct, these cases point toward a typology of *v* heads in which they are distinguished by what they allow in their specifiers and what syntactic operations they trigger in order to satisfy their needs. Let us call these distinguishing features of *v* across languages EPP features in a somewhat extended sense. Then we can envision the following values of such features:

- | | | | |
|------|----|----------------------|--|
| (57) | a. | [EPP: Max] | Dutch, German, Icelandic object shift |
| | b. | [EPP: Min] | MSc object shift, French, Lubukusu |
| | c. | [EPP: Reduce-to-Min] | Amharic, Bulgarian, Greek, Spanish |
| | d. | [EPP: Head] | French, Amharic, Greek, Lubukusu (<i>not</i> MSc) |
| | e. | [EPP: null] | English ⁴² |
| | f. | (no EPP at all?) | |

There are some logical connections between the new (57)b-e values here. [EPP: Reduce-to-Min] is a subtype of [EPP: Min]. Both kinds of *v* require that only a small functional head can occupy the Spec *v*P position as a result of movement: [EPP: Reduce-to-Min] can invoke Reduce to satisfy this requirement, resulting in clitic doubling, whereas mere [EPP: Min] does not, resulting in weak pronouns being in Spec *v*P but no clitic doubling. Recall from Section 3.1 that [EPP: Head] requires the specifier of *v*P to undergo Spec-Head Merge and adjoin to *v*; thus, [EPP: Head] implies that there is also (in effect) either [EPP: Min] or [EPP: Reduce-to-Min], since only an X^0 can merge with the *v* by structure preservation.

The overall conception behind this range of features is that there are intermediate values for whether a functional head *F* tolerates a specifier or not between (57)a, where *F* tolerates any specifier, and (57)ef, where *F* tolerates no specifier, or at least no overt specifier (cf. standard analyses of English where *wh*-phrases move through Spec *v*P on their way to Spec CP, but no overt specifier can appear there).⁴³ In between these “extreme” possibilities are the possibilities that *v* can have something overt in its specifier,

⁴¹ Safir (2004b: 115-121) argues against resumptive pronouns in Hebrew being “spelled out traces” in this way, because constructions with resumptive pronouns show certain semantic restrictions that constructions with true gaps do not show (drawing on work from Doron 1982, Demirdache 1991, and Sharvit 1999). But this is not at all decisive against our potential version of this view. For us, it is perfectly possible that the pronoun created by Reduce is interpreted differently at LF than a gap created by Delete; indeed, it is expected.

⁴² Johnson 1991 argues that even in English direct objects move to a specifier position to account for certain word orders. If this is right, we assume that that movement targets a lower position than what we are calling Spec *v*P here; see Broekhuis (2008) on the distinction between “short object shift” and “normal object shift” in Germanic.

⁴³ Maybe all languages allow at least a trace to be in Spec *v*P—but maybe not. Some Austronesian languages including Tagalog do not allow *wh*-movement of objects or other phrases properly inside VP, except under special conditions. A possible account of this is that nothing can move into Spec *v*P, so that simple extraction out of VP is ruled out by the PIC (except under special conditions); see Aldridge (2005) for an account along these lines.

but only the smallest relevant category ((57)bc), as in MSc, and the possibility that v can have something in its specifier, but only if it then attaches to the verb, vacating the Spec vP on the surface, as in French and Lubukusu. Clitic doubling languages like Amharic have vs with both [EPP: Head] (as in Section 3.1) and [EPP: Reduce to Min] (to differentiate Amharic from a non-doubling language like French). These features are optional on v in Amharic, in that it is fine for v to have no specifier and no D head adjoined to it, as happens with intransitive verbs, or transitive verbs with no clitic doubling. But if v does take up the option of having one of these EPP features, then it must have both.

If all this is on the right track, one might expect that other functional heads can also have intermediate values for their EPP feature—T for example. Well-attested for T are the values of [EPP: Max] and [EPP: null] or no EPP. T in English has [EPP: Max], since any size DP can appear in Spec TP (and indeed something must); T in a VSO language like Irish presumably has [EPP: null] or [EPP: no], since the subject appears lower than the tense marker or verb inflected for tense. Are there then languages with only weak pronouns or clitics in Spec TP position? The answer is probably yes, for example in Colloquial French (CF, Culbertson 2010) and some Northern Italian dialects with widespread subject clitics. CF in particular is much like Amharic, in that a doubling clitic is optional with a referential DP subject, but forbidden with a quantified DP and with (the trace of) a *wh*-phrase (Culbertson 2010:86).⁴⁴

- (58) a. Jean (il) parle.
 John he speaks.
- b. Personne (*il) n’a rien dit.
 Nobody he has anything said

CF is different in this respect from both “standard”/written French, where a weak subject pronoun co-occurs with an overt DP only if the DP is dislocated, and from Italian dialects like Piedmontese, where the subject clitic appears with all sorts of subjects, even quantified and interrogative ones (Poletto 2000, Gorla 2004). So whereas the so-called subject clitics can be analyzed as pure agreement in Piedmontese, something more like Amharic should be said for CF. We can tentatively say that T in CF is also [EPP: Reduce-to-Min]. Therefore, this intermediate EPP value that we attribute to v to get languages like Amharic can probably be found on T too.⁴⁵ (The fact that the overt subjects in (58) appear before the finite verb implies then that the subject has moved to some overt position higher than Spec TP, where the subject clitic is—perhaps Spec SubjP in the sense of Rizzi (2006) and Cardinaletti (2004), or a position inside the CP space, as Poletto (2000:148-153) argues for Italian dialects.⁴⁶ This complicating factor should not be crucial: Poletto (2000:140) states that the pattern of having subject clitics with referential subjects but not with quantified ones is also attested with subjects that appear after the main verb in Italian dialects, although she is not explicit about which ones have this particular pattern.)⁴⁷

Thinking of these properties as EPP values on different heads confirms that it is particular heads that govern these operations, not languages as a whole. For example, English has [EPP: Max] on T, but [EPP: null] on v , two very different values. Icelandic has [EPP: Max] on both T and v , but MSc has [EPP: Min] on v although it maintains [EPP: Max] on T. And so on. In this light, we can ask whether our distinctive operation of Reduce is available in some languages throughout and not available at all in other

⁴⁴ The Italian dialect that most closely matches this pattern is Venuto (Poletto 2000:141, Roberts 2010:111).

⁴⁵ In addition, T seems to be [EPP: Head] in CF, but not in otherwise similar Venuto, given that the verb can move into the C space in matrix questions, leaving the subject clitic behind in Venuto (Poletto 2000:42-45) but this sort of clitic-verb inversion has been almost entirely lost in CF (Culbertson 2010:100-101).

⁴⁶ On the importance of whether this preverbal subject position is an A-position or an A-bar position, see section 4.1.

⁴⁷ One could also think about having this range of features on Ds. English with full DP possessors in Spec DP would be [D-EPP: Max]. Spanish with ‘her N’ but not *‘Maria’s N’ (but rather ‘the N of Maria’) would be [D-EPP: Min]. Hebrew which allows clitic doubling of possessors inside nominals (Borer 1984) might be [D-EPP:Reduce-to-Min]. A language that had only ‘the N of Maria/her’ but allowed extraction out of NP would be [D-EPP: Null], and a language that had only ‘the N of Maria/her’ and no extraction out of NP (e.g., Kinande) would be [D-EPP: none].

languages, or whether its availability is keyed to particular functional heads. Preliminary evidence suggests that its availability is indeed keyed to individual functional heads. CF, for example, allows subject clitics to double full subjects as in (58)a, and it has object clitics, but does not allow object clitics to double full objects. So T in CF is [EPP: Reduce-to-Min], but *v* is [EPP: Min] only. Languages thus seem not to be uniform in whether clitics/weak pronouns can be doubled by overt DPs or not. Since clitic doubling is the result of Reduce on our analysis, this means that whether Reduce can apply in a given context is determined locally by the particular functional head involved. This justifies the implementation in (57), where Reduce and Spec-Head Merger are triggered by features of the functional head.⁴⁸

Although CF suggests that clitic doubling can happen with subjects on par with how it happens with objects in Amharic, Spanish, Greek, and Bulgarian, it seems that this is not so common. When one tests OMs, they turn out to be clitics rather than pure agreement as often as not (see Section 5), whereas when one tests SMs, they usually turn out to be pure agreement. This is certainly true in Amharic, where one finds subject agreement (cf. (7)) and object clitics; exactly the same is true in Spanish, Greek, and Bulgarian. In contrast, the opposite situation of a language having subject clitics but object agreement seems to be very rare, and may not even exist. There seems then to be a kind of subject-object asymmetry here: SMs are tilted toward agreement, whereas OMs may be 50-50 or tilted toward clitics.

Can we make something of this theoretically? Perhaps. We know that it is very common (for whatever reason) for T to have [EPP: Max]; after all, that is where the EPP property originated, and SVO languages are significantly more common than VSO languages. In contrast, it is less common for *v* to have [EPP: Max] and more common for it to have [EPP: null]. Thus, in head initial languages it is rare to have Subj-T-Obj-V-XP order; this is attested only in a few West African languages (e.g., Bambara, Koopman 1992). (In SOV languages it is harder to tell, because of the ambiguous word order and the possibility of scrambling in addition to object shift proper.) Suppose, then, that T is biased toward having [EPP: Max], whereas *v* is biased against it. Then [EPP: Min] and [EPP: Reduce to Min] being more common for *v* than for T could be part of this larger pattern of *v* not tolerating full specifiers as readily as T does.⁴⁹ This gives us the beginnings of an explanation for the important fact that clitic doubling seems to be more common with objects than subjects (see also Section 4.1 for another relevant consideration).

4. On OMs with non-Direct Objects: experiencers, goals, and moved themes

4.1 Clitic doubling and experiencer arguments

Many languages in the clitic doubling literature have predicates that take experiencer arguments, where the experiencer may or even must be doubled by an OM. Clitic doubling with experiencer arguments often has different properties from clitic doubling with ordinary theme arguments; see, for example, Krapova and Cinque (2008) for a recent discussion of this issue in Bulgarian, with references to other languages. This issue also arises in Amharic. Amharic does not have dative subject constructions per se, but it does have a not-so-small set of predicates in which the experiencer cannot trigger subject agreement, but is doubled by an OM on the verb. Such predicates may also take a theme argument; even

⁴⁸ Further cases of language-internal variation can be found if we look at EPP features on D, as in fn. 47. For example, French allows clitic doubling of possessors in DPs (if the possessor is dative) (Tremblay 1989) but not of nonpronominal direct objects. Conversely, many Latin American Spanish speakers allow clitic doubling of direct objects but not of possessors in DP (José Camacho and Liliana Sanchez, p.c.).

⁴⁹ It is possible that this, in turn, holds for prosodic reasons. If T is the highest head in a matrix clause, Spec TP will be at the edge of the clause, where it is easy to pronounce as a separate prosodic phrase if necessary. However, *v* is not the highest head in the clause, so Spec vP is not generally at the edge of the clause, but internal to it. It might be that this creates prosodic problems if Spec vP can be of arbitrary complexity and length. [EPP Min], [EPP Reduce-to-Min], [EPP: Head] and [EPP: null] could be formal tools to “manage” this potential problem in pronounceability.

Jenneke van der Wal (p.c.) suggests a plausible alternative: *v* is often taken to have the special property of hosting two different sorts of specifiers: the thematic position of the subject and the derived position of the shifted object. It is possible that this puts special pressure on Spec vP to be small, making [EPP: Min] a preferred option.

if they do not, they generally allow a cognate argument related to the verb root (see Leslau 1995:435-439, Amberber 2005:303-314). (59) gives examples with and without a distinct theme argument.

- (59) a. Almaz(-in) (rab) rab-at.
Almaz(-ACC) (hunger) hunger(3MS.S)-3FS.O
'Almaz is hungry.'
- b. Aster gänzäb t'äff-at
Aster money lose(3MS.S)-3FS.O
'Aster lost some money.'

Interestingly, in this type of structure, it is possible for less-than-fully-referential DPs to be doubled by the OM, as shown in (60). This contrasts with the badness of OMs doubling such DPs used as theme-objects. (This is essentially the same as the contrast that Krapova and Cinque document for Bulgarian.)

- (60) a. Mann(-in) ammäm-äw ? **Interrogative**
who(-ACC) hurt(3MS.S)-3MS.O
'Who is sick?'
- b. Hullu säw gänzäb t'äffa-w **Quantified NP**
every person money lose(3MS.S)-3MS.O
'Everyone lost some money.'
- c. Mann-imm säw gänzäb al-t'äff-a-w-imm **Negative quantifier / polarity item**
who-FOC person money NEG-lose-3MS.S-3MS.O-FOC
'No one lost money.'

In these examples, the OM seems to behave the way that we would expect agreement to behave, rather than like a pronominal clitic. Because of facts like this, previous researchers on Romance languages have sometimes proposed that dative clitics are really agreement morphemes, whereas accusative clitics are true pronominal clitics (Sportiche 1996, Bleam 1999, Ormazabal and Romero 2013, etc.). But it is not very satisfying simply to stipulate this difference, given that we see the same asymmetry in many languages: OMs with experiencer "subjects" are agreement-like, but OMs with themes are more pronoun-like, never the other way around. Stipulating this is even less attractive in Amharic, where there is no formal distinction between dative OMs and accusative OMs, the way that there is in many I-E languages. We seem to have the very same affixes in (60) that we have in (4), so the question arises why these elements trigger referentiality restrictions in one syntactic context but not the other.

In fact, it is not so hard to give a unified account of this within our theory of OMs. According to us, examples of an OM doubling a quantified object are ruled out as crossover violations: the pronoun created by moving to Spec vP and reducing cannot be referentially dependent on its DP associate, which it c-commands. However, it is well-known that moving a quantified DP to an A-position higher than the pronoun can remove the crossover violation. This is seen in familiar pairs like (61) in English, as well as in the literature on clause-internal scrambling; see also (12) for passive affecting crossover in Amharic.

- (61) a. *It seems to her father that every girl is beautiful.
b. Every girl seems to her father to be beautiful.

We can, then, reconcile the idea that OMs are always pronominal clitics in Amharic with the goodness of (60) if we assume that experiencers move to an A-like position higher than the reduced D in experiencer constructions, whereas theme objects of transitive clauses do not move higher than the D in Spec vP.

Indeed, this seems eminently reasonable to assume, given that experiencers are the notional subjects of the clauses in (59) and (60). There are several reasons for saying this. First, they are the highest arguments thematically, and the natural topics of the clause (Amberber 2005:313). Second, they can and most often do appear in nominative case, the case for subjects not c-commanded by any other DP in Amharic (although accusative case is also an option; see Baker (2012b, 2015) on this alternation). Evidence that these experiencers sit in an A-position (e.g. Spec SubjP) rather than an A-bar position like Spec of Topic Phrase is that they can act as controllers, which is a canonical property of subjects, not topics. In (62), ‘Almaz’ is an experiencer in that it does not trigger feminine singular subject agreement on the verb ‘need’, but rather is doubled by an OM. Nevertheless, it controls the null subject of the infinitival complement of ‘need’, just as the subject does in English.

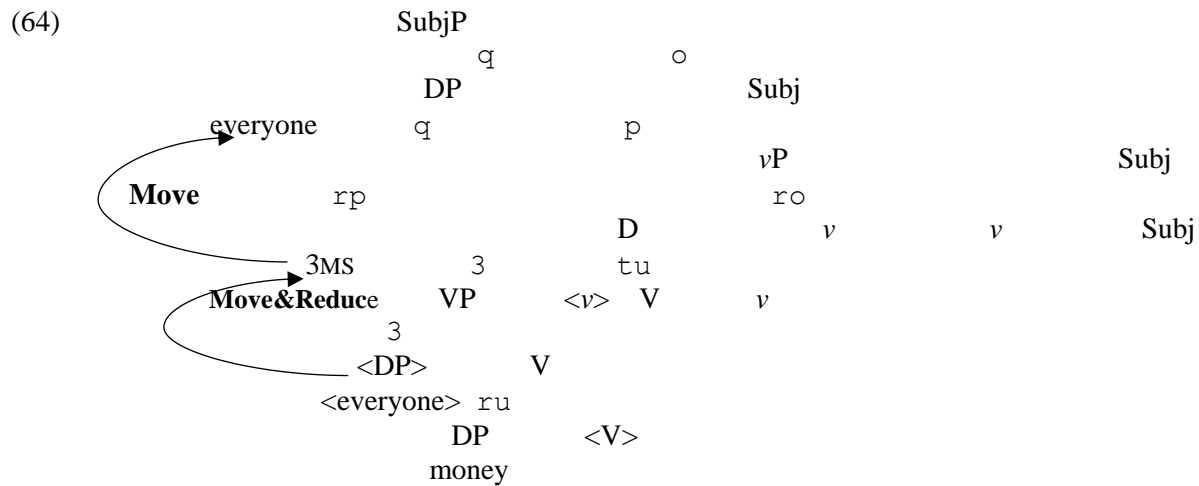
- (62) Almaz [PRO miḡib mä-blat] y-asfällig-at-all.
 Almaz food INF-eat 3MS.S-need-3FS.O-AUX.3MS.S
 ‘Almaz needs to eat some food.’

Also relevant is the fact that, if the experiencer is a quantified DP, it can bind a variable inside the theme argument, as shown in (63); no weak crossover effect arises here.

- (63) Hullu säw lidʒ-u t’äff-a-w
 every person child-his lost-3MS.S-3MS.O
 ‘Everyone lost his own child.’ BVA is OK

We conclude that the experiencer is associated with an A-position that c-commands the theme argument.

Overall, then, it is reasonable to say that this kind of experiencer in Amharic raises (or at least may raise) to a subject position, such as Spec SubjP in the sense of Cardinaletti (2004) and Rizzi (2006). The structure, then, of an example like (60)b is approximately (64).⁵⁰



Here the experiencer argument generated inside VP moves to Spec vP, just as in other examples (e.g. like the goal argument in (48)a). But it also moves on from there into the subject position, above Spec vP, as experiencer subjects do in Icelandic and other languages. The copy of DP in Spec vP reduces to D because of v’s [EPP: Reduce-to-Min] feature, but the copy in Spec SubjP remains whole, because of

⁵⁰ Our use of Spec SubjP (rather than Spec TP) in (64) is to indicate that one probably needs a more articulated structure in order to give a full account of the case and agreement properties of experiencer subjects in Amharic—in particular, the fact that they cannot trigger subject agreement, whereas the theme arguments of unaccusative verbs do. See section 4.3 below for discussion.

Subj's [EPP: Max] feature. The D in Spec ν P now counts as a pronoun that is referentially dependent on a copy of DP that c-commands it from an A position, rather than on a copy of DP that it c-commands, given our principle in (18). This makes all the difference with respect to crossover. When the experiencer undergoes QR from the Spec SubjP position, adjoining to the clause to represent its scope at LF, the q-variable bound by the quantifier is in Spec SubjP, where it c-commands the pronominal D in Spec ν P. As a result, D's referential dependence on this q-variable is allowed by the Safir-inspired INP in (16), or the equivalent. In contrast, it is the agent that moves to subject position in transitive clauses, so the object cannot move to an A-position above Spec ν P. The Crossover Condition is thus necessarily violated when the internal argument is quantified, as discussed in Section 2.2. Therefore, we do not have to stipulate that in Amharic some OMs are true agreement and others are not, a very desirable result.

This analysis gives us a second possible reason why subject markers (SMs) often seem to be agreement markers in languages of the world, whereas OMs behave like pronominal clitics as often as not, supplementing our reason in terms of EPP features discussed in Section 3.3. It might be common for subjects to be able to move to a Spec SubjP position that is above the Spec TP position in many languages; we mentioned that this must happen in the CF examples in (58), given their Subject-(Clitic)-Verb order. In languages where this Spec SubjP position counts as an A-position, we expect that the crossover effect with quantified DPs that we are using to diagnose a true pronominal clitic will be washed out, just as it is in (60) in Amharic. Evidently the relevant landing site in CF is not an A-position, but rather an A-bar position, given that the contrast between referential DPs and quantified DPs persists. But many Italian varieties do allow QP-Clitic-Verb structures, including Milanese, many Lombard dialects, Ligurian, and most Piedmontese dialects (Poletto 2000:142). This could be because the SM is really an agreement morpheme in those dialects, but it could also be because the preverbal subject position above TP counts as an A-position even though the SM is pronominal. In general, then, if one wants to test whether an SM is a pronominal clitic or not, it is safer to use examples in which the subject stays low (if available), so as to avoid this confounding factor.⁵¹

4.2 Clitic doubling of goal arguments in Amharic

This is a natural point to consider briefly the possibility of an OM doubling the goal argument of a ditransitive verb like 'give' in Amharic. We have already seen back in (48)a that it is possible to double a referential goal argument in Amharic; another such example is given here.

- (65) Läm̄ma lä-Aster mäs'haf-u-n asayy-at. (*asayy-äw)
 Lemma.M DAT-Aster.F book-DEF.M-ACC show(3MS.S)-3FS.O show(3MS.S)-3MS.O
 'Lemma showed the book to Aster.'

The question now is this: does this sort of doubling triggers referentiality restrictions on the indirect object, the way that clitic doubling of direct objects does, or is it compatible with nonreferential DPs, the way that clitic doubling with experiencer arguments is? It is not immediately obvious what to expect empirically, given that the I-E languages with clitic doubling differ in this respect: in Spanish, dative clitics can double any kind of IO without restrictions, as emphasized by Suñer (1988) and Gutiérrez-Rexach (1999), among others, whereas clitics in Romanian put the same kinds of restrictions on indirect objects as they do on direct objects (Gutiérrez-Rexach 1999: 347). Which way does Amharic go, then?

⁵¹ Gorla (2004:29-32) shows that SMs in the Piedmontese dialects she studies are present regardless of whether the subject is referential or quantificational, and regardless of whether it is preverbal or after the main verb. For us, this implies that SMs in Piedmontese are true agreement markers, not pronominal clitics. If a dialect had pronominal subject clitics and an A-position for subjects above TP, we should see a contrast between referential DPs and QPs for postverbal subjects but not for preverbal subjects.

In fact, our data indicate that the same types of referentiality restrictions are found with dative goals as with simple direct objects. Examples are in (66).⁵²

- (66) a. Läm̄ma lä-hullu säw lidʒ-u-n asayy-(??äw)
 Lemma.M DAT-every person.M child-DEF.M/his-ACC show.PF(3MS.S)-(??3MS.O)
 ‘Lemma showed the (or his) child to everyone.’
- b. Almaz lä-man gänzäb sät’t’-ätʃʃ-(?*iw)?
 Almaz.F DAT-who.M money give-3FS.S-(?*3MS.O)
 ‘Who (in the world) did Almaz give money to?’ (I wouldn’t have expected her to give any)
- c. Almaz gänzäb-u-n lä-ras-wa sät’t’-ätʃʃ-(*at)
 Almaz.F money-DEF.M-ACC DAT-head-her give-3FS.S-(*3FS.O)
 ‘Almaz gave the money to herself.’
- d. Hullu-mm säw lä-mist-u gänzäb sät’t’-ä (#sä’t’-at)
 every-FOC person DAT-wife-his money give-3MS.S give(3MS.S)-3FS.O
 ‘Everyone gave his wife some money.’ (bound reading only OK iff OM is omitted)

Moreover, the logic of our analysis expects this result. Recall again that Amharic does not have a different set of OMs for dative arguments as opposed to accusative arguments, the way that many I-E languages do. Not only are the OMs for dative arguments formally identical to the OMs for accusative arguments, they also have the same determiner-like morphological properties (they trigger haplology when followed by a determiner, they are insensitive to tense/aspect, etc.). Therefore, we expect the OMs in these examples to be inherently pronominal just like the OMs for accusative arguments. Given this, the only way that OMs for dative objects could be compatible with a quantified doubled argument is if the doubled DP moved through Spec *v*P on its way to a higher A-position, as happens in experiencer constructions. But that is presumably not possible for the goal arguments of transitive verbs: rather, they sit in some position inside the greater verb phrase within the domain of *v*. Clearly, they do not move to Spec TP or Spec SubjP; rather the agent does. Goal arguments are thus not significantly different from theme arguments in the ways that count for our theory. It is therefore expected that goal-doubling shows essentially the same restrictions as theme doubling in Amharic, as indeed it does.

4.3 Clitic doubling and movement through Spec *v*P

Let us now return to the structure of an experiencer predicate with clitic doubling in (64). This structure gives us an opportunity to investigate more carefully how our principles of chain realization should apply to more complex chains, in which a DP moves from a position inside VP, through *v*P, into some higher position, like Spec TP or Spec SubjP (A-movement) or Spec CP (A-bar movement). This sort of successive cyclic movement is widely assumed to be common place, for both empirical and theoretical reasons. For example, on the empirical side, moving through a position like Spec *v*P is taken to trigger agreement on the participle in Romance (Kayne 1989). On the theoretical side, moving through Spec *v*P is often taken to be required by the Phase Impenetrability Condition within Chomsky’s (2000, 2001) “derivation by phase” theory, given that *v* is (often or always) a phase head. So far we have discussed in detail only cases in which the copy in Spec *v*P is the highest member of the chain, but more complex chain structures should be considered as well.

⁵² We should add, though, that we have encountered somewhat more variability and gradation in these judgments than in others. Our hunch is that the pragmatics of ditransitive sentences tends to facilitate specific/partitive type readings, and special care is sometimes needed to bring out a truly quantificational reading (as in (66b)).

The example in (64) is just such an example, given our claim that the experiencer moves from its theta-position in Spec VP through Spec *v*P to Spec SubjP. Note that a full DP shows up in Spec SubjP, a reduced D head shows up near Spec *v*P, and there is no overt manifestation of the DP in the theta position inside VP. As already mentioned, this is in line with the EPP features of each head: Subj has [EPP: Max] in other derivations as well as here, and *v* has [EPP: Reduce-to-Min] in other derivations as well as here.

But there are details to clarify. Most importantly, it is crucial that Reduce does not happen immediately when DP first lands in Spec *v*P. If it did, then what moved on to Spec SubjP would not be the whole DP but only its D head, contrary to fact. This reinforces the point that Reduce is a distinct syntactic operation, not an intrinsic part of move itself. This also confirms the point that different copies in the same chain are distinct syntactic elements, such that Reduce can apply to one of them without automatically applying to all the others; it cannot be the case that chains are merely multiple “occurrences” of what is intrinsically a single syntactic item (see also fn.33; we thank an anonymous reviewer for pointing out this implication of our analysis). Nor does the presence of a higher copy above Spec *v*P automatically cause the copy in Spec *v*P to totally delete and become null, as it does the lowest copy in Spec VP. Rather, Reduce happens before normal copy deletion (as the special case). This creates a difference between the copy in Spec SubjP and the copy in Spec *v*P, such that the latter does not delete. This is different from but parallel to the fact that Reduce bleeds the deletion of a lower copy of DP inside VP, causing true clitic doubling, as discussed in section 3.2. However, the lowest copy does delete as usual whenever there is an unchanged higher copy, like the one in Spec SubjP in (64). So the ideas that we have been employing extend reasonably well to this more complex sort of chain structure too, with some clarifications about when Reduce happens, but no radical revisions.⁵³ It is also worth noting that OM that double experiencers are obligatory in Amharic. This suggests that experiencers not only may but must move through Spec *v*P on their way to Spec SubjP, presumably for phase-theoretic reasons.⁵⁴

There is, however, a very striking contrast between these experiencer constructions and simple movement to subject position in passives and unaccusatives. The latter sort of movement also takes place in Amharic, but in such structures an OM doubling the theme is ruled out, as seen in (67).

- (67) a. Almaz wāddāk’-ätftj-(*at)
 Almaz fall.PF-3FS.S-(*3FS.O)
 ‘Almaz fell.’
- b. Almaz bä-Girma tā-sam-ätftj-(*at)
 Almaz by-Girma PASS-kiss.PF-3FS.S-(*3FS.O)
 ‘Almaz was kissed by Girma.’

These constructions are like the experiencer construction in involving movement of a VP-internal argument to subject position, but one bars a doubling OM and the other requires it. Why? One might

⁵³ Another question that arises here is why the D pronoun in Spec *v*P does not violate condition B, since it is bound by the copy in Spec SubjP within the same minimal clause. This follows from the kind of reasoning used in section 2.5. Condition B blocks a pronoun from being referentially dependent on another DP when an anaphor could have been used instead, giving rise to a pragmatic presumption of noncoreference. But in this case an anaphor could not have been generated instead, because the pronoun was created derivationally by Move and Reduce, not by free insertion (external Merge). Moreover, any merely pragmatic presumption of noncoreference is overridden by the syntactic licensing principle in (18), which requires a referential dependency in this case.

⁵⁴ In a similar way, one might expect *wh*-movement of an object to Spec CP to transit through Spec *v*P, resulting in an OM that is attached to the verb. But an issue for investigating this expectation is that we are not sure that Amharic has any instances of true syntactic *wh*-movement. The most likely candidate is relative clause formation—and indeed there is always an OM doubling the position of an extracted object in Amharic (see Leslau 1995:85ff). However, it would need to be investigated whether this is a genuine movement construction, or a construction in which the relative head binds a resumptive pronoun realized as an OM inside the relative clause (see also fn.14). Since we cannot investigate this issue in sufficient depth to resolve it here, we put relative clauses aside.

stipulate that A-movement cannot transit through Spec vP in the case of passives and unaccusatives, but this seems ad hoc for the unaccusative-experiencer contrast in Amharic, and unmotivated on theoretical and cross-linguistic grounds (NP movement in passives and unaccusatives does trigger agreement on participles in the Romance languages, for example; see Kayne (2000: ch. 2 and 3)).

There is, however, one other obvious difference between experiencer predicates and unaccusative predicates in Amharic. This is the simple fact that the theme arguments of passive and unaccusative verbs trigger normal subject agreement, as can be seen in (67). In this respect, they are different not only from the theme (and goal) arguments of transitive verbs, but also from experiencer arguments, which never trigger subject agreement on the verb (see (59)). Indeed, we know of no cases in which the same argument both triggers subject agreement and is doubled by an OM in Amharic. We assume then, that the OM on the verb is suppressed at PF whenever there is subject agreement on the verb that registers the same argument. This is another instance of Kinyalolo's Constraint in (54), which we have already claimed to be relevant to Amharic for independent reasons.

The specifics might be filled in as follows. First, we note that the locus of agreement in Amharic is Asp(ect) (Demeke 2003:45); we have been treating it as T (and assuming the subject moves to Spec TP) to make the similarity between Amharic and I-E languages clear, and because the exact semantic identity of the head in question did not matter. But in this section in which we focus on the nitty-gritty of agreement in Amharic, we use Asp for accuracy.

Baker (2012b) asks why the goal argument of a ditransitive verb in Amharic cannot become the subject of a passive, whereas an otherwise similar source argument can. His answer was that goal arguments in Amharic are generated inside a PP headed by a null P, whereas theme arguments and source arguments are not. This PP shell prevents the goal argument from moving to Spec AspP and agreeing with Asp (TP for Baker 2012b). He also goes on to assume that experiencer arguments like that of 'be hungry' are also generated inside the same kind of null headed PP—just as experiencers and goals are expressed in the same way in many other languages (e.g., with quirky dative case in Icelandic). So the experiencer argument must not land in Spec AspP because the PP structure does not satisfy Asp's EPP feature. A further consequence of this is that the experiencer cannot agree with Asp. (This is why we said that it lands in a different position, Spec SubjP in (64).) Instead, the experiencer must move straight to Spec SubjP. But in compensation, the reduced copy in Spec vP can be realized on the verb at PF; nothing prevents that. However, the theme argument of a simple passive or unaccusative is a normal DP. As such, it can satisfy the EPP feature of Asp; therefore it must do so. Whatever satisfies the EPP feature of Asp must also agree with Asp in Amharic (Amharic is presumably like Bantu in this: see Carstens 2005, Baker 2003, 2008). Therefore, if nothing else happened, there would be the following feature bundle on the verb at PF in passive and unaccusative clauses like (67).

(68) [Verb- v [3FS]-D[3FS]-Asp[3FS]]

The representation in (68) then triggers Kinyalolo's Constraint in (54), a condition operative in many languages (although not all) that says that the phi-features of an argument should only be expressed once on the verb. We invoked this in section 3.2 to account for why the agreement features on v and the phi-features of D are not both exponed in Amharic, but only the latter are. We now use it to account for why the phi-features on D and the phi-features on Asp are not both exponed in Amharic. As stated in (54), when two possible feature bundles show up on the same complex morphological word, only those associated with the higher head are spelled out. This is seen in KiLega, where agreement associated with C causes the agreement associated with T to be suppressed on the verb if and only if C and T agree with the same argument in cases of extraction. The same generalization also holds in Amharic, where subject agreement associated with Asp causes the object clitic associated with v to be suppressed, not the other way around. In contrast, experiencer subjects do not trigger agreement on Asp, so the D associated with the intermediate trace in Spec vP can be realized at PF in those cases. Finally, since Kinyalolo's Constraint is a PF-oriented phenomenon, one might expect languages to vary in this respect, and that is

true. Languages that allow both an OM and subject agreement with the same DP in unaccusative clauses seem to be rare, but Burushaski is a good example, as seen in (69) (Baker in press).⁵⁵

- (69) Acaanák **hilés** **i-ír-imi.** (Burushaski, Willson 1996:19)
suddenly boy 3M.O-die-PST.3M.S
'Suddenly the boy died.'

Burushaski shows that it is possible in principle to have an OM double an unaccusative argument, but this does not show up in Amharic for what we take to be morphological reasons.

Overall, then, principles that we already have in play for simple cases of clitic doubling also work for constructions in which DP moves through Spec ν P on its way to some other position.⁵⁶

6. On diagnostics for clitic doubling vs agreement

Finally, we consider in a preliminary way what implications our argument that OMs in Amharic are clitic pronouns, not agreement markers, has for distinguishing clitic doubling from agreement in other languages. Since we derive the restrictions on what kind of DPs can be doubled by an OM rather directly from the hypothesis that the OM is a pronoun together with two cross-linguistically robust principles of grammar—the Crossover Condition and the Binding theory—we expect relatively little room for crosslinguistic variation on this matter, other than perhaps around the edges, like what exactly counts as a quantifier or a reflexive marker in a given language. Indeed, our initial inquiries suggest that the results are robust across a range of languages that are often taken to have canonical clitic-doubling, including Spanish, Greek, and Bulgarian, as shown briefly in section 2.

This suggests that we should be able to use these properties more broadly, as a reliable diagnostic for whether or not a morpheme that is attached to the verb and varies with the phi-features of the object is a case of pure object agreement or a pronominal clitic derived from the object by movement. If the morpheme is systematically incompatible with quantified DPs, anaphoric DPs, and DPs containing a bound variable, then it is a pronominal clitic; if it is compatible with them, then it is a manifestation of true object agreement (though perhaps cliticized to the verb phonologically; see fn. 3).

For starters, then, we can ask whether any language has true object agreement, by this test. Nevins (2011:960-61) (citing unpublished work by Ellen Woolford) has asserted that, once one distinguishes clitics from agreement, object markers always turn out to be clitics, and there can only be one true agreement per clause, with the nominative (or absolutive) argument (cf. also Preminger 2009). Our diagnostic, however, gives the opposite result, showing that some languages do have true object agreement. One such language is the isolate Burushaski, spoken in Northern Pakistan, mentioned just above. In addition to having object agreement with definite referential nominals like proper names, pronouns, and definite DPs (see (70)a), Burushaski also allows object agreement with reflexive anaphors ((70)b), question words ((70)c), and negative or nonspecific indefinite NPs ((70)d). For completeness, we

⁵⁵ OMs in Burushaski will be shown in the next section to be agreement rather than D heads, but that distinction is not relevant for Kinyalolo's Constraint, at least on our interpretation.

⁵⁶ A further question along these lines could be to explore what happens with nonfinite verbs which can bear OMs but do not show subject agreement, like infinitives in I-E languages. The account in the text makes the odd-looking prediction that an OM might show up doubling a passive or unaccusative subject only in such clauses, where there is no subject agreement to suppress it. However, the issue seems to be moot in Amharic, since there are no such nonfinite verbs: Amharic has only verbal nouns, which have no subject agreement and cannot bear an OM either, and imperfective participles and gerunds which have both subject agreement and OMs.

I-E languages do have true infinitives, but in those languages the issue might not arise for other reasons. They generally distinguish accusative clitics from dative clitics, at least in parts of the paradigm. Therefore the +ACC feature presumably conditions the insertion of vocabulary items for the D head in these languages. But the D left by passive or unaccusative movement will not be +ACC; those chains receive nominative case rather than accusative. Therefore, object clitics in I-E languages may not be insertable for this reason.

also include (70)e with a universal quantifier, but since the universally quantified DP contains a plural definite DP, this may be less relevant to the question at hand (see Section 2.3).

- (70) a. hilés-e dasín mu-yeéts-imi.
 Boy-ERG girl.ABS 3FSG.O-see-3MSG.S.PST
 ‘The boy saw the girl.’ (Willson 1996:3)
- b. Khín dasin-e mu-khár e-sqan-umo.
 DEM.F.PRX girl-ERG 3FSG-self.Y.ABS 3Y.O-kill-3FSG.S.PS
 ‘This girl killed herself.’ (Willson 1996:18)
- c. mu-ar men-Ø d-u- sú-č-a-m?
 her-DAT who-ABS PREV-3PL.O-bring-IMPF-1SG.S-NPRS
 ‘Whom (all) will I bring to her?’ (Yoshioka 2012:186)
- d. kholéi jé-e má-ma-r bés-an qhidmátan i-t-as
 here I-ERG you-OBL-DAT what-INDEF.SG service.INDEF.SG.ABS 3Y.O-do-INF
 a-ulán-C-a bá -a
 NEG-be.able.to-IMPF-1SG.S COP-1SG.S.PRES
 ‘I cannot do anything (any service) for you here.’ (Yoshioka 2012:146)
- e. icé číz-Ø hár hán uyoon-Ø muú rádi n-i-t.
 those.X thing-ABS every one.Y all-ABS now ready CP-3YPL.O-do
 ‘All those things he made ready.’ (Yoshioka 2012:46)

In short, there seem to be no restrictions on what sort of DP an OM can double in Burushaski, as expected if the OM is true object agreement.

Another language of this sort is the Bantu language Smbaa spoken in Tanzania, as described by Riedel (2009). (71)a shows that an object marker is possible in Smbaa with a nominal that is interpreted as definite, but that nominal can also be interpreted as an indefinite (specific or nonspecific). (71)b shows that an OM is possible with a negative polarity item or narrow scope indefinite, (71)c that it is possible with an in-situ *wh*-word, and (71)d that it is possible with a singular universal quantifier.⁵⁷

- (71) a. N-za-(mw)-ona ng’wana.
 1SG.S-PF.DJ-1.O-see 1child
 ‘I saw the/a child.’ (Riedel 2009:46)
- b. Si-chi-on-iye kintu chochoshe.
 NEG.1SG.S-7.O-see-PF 7thing 7any
 ‘I didn’t see anything.’ (Riedel 2009:50)
- c. U-wa-ene (wa)-ndayi?
 2SG.S-2.O-see.PF 2(PL-)-who
 ‘Who (all) did you see?’ (Riedel 2009:158)

⁵⁷ Riedel also shows with some care that nominals doubled by an OM are not right dislocated in Smbaa. For example, in a structure of the form [Subject OM-verb Object] the verb can still be in conjoint form, high tone spread can happen between the verb and the object, and there is no sign of a prosodic break between the verb and the object. All of these are indications that the object is still inside the VP even when the OM is present.

- d. N-za-m-somea [kia mwandisi] kitabu chakwe.
 1SG.S-PF-1.O-read.APPL every 1writer 7book 7his
 ‘I read each author his own book.’ (Riedel 2009:106)

Again, there seem to be no restrictions on what kind of nominal can be doubled by an OM in terms of the nominal’s referentiality, specificity, or quantificational force. (The one major missing datum is an OM that doubles a reflexive anaphor, but this cannot be tested in Smbaa, because Smbaa, like other Bantu languages, expresses reflexivity by a special reflexive prefix on the verb, not by an independent DP.) So Smbaa too has object agreement, not object clitic doubling. Note however that there is by all accounts significant variation within the Bantu family in this regard, with OMs in many other languages counting as doubling clitics, or even as clitics that cannot be doubled by an associate in situ but only by a dislocated DP, as in Lubukusu. (See Author (2016) for preliminary discussion of this microparametric variation within the Bantu languages from our perspective.)

Next we can ask how our diagnostic for agreement versus clitic doubling compares to other diagnostics from the literature. One influential diagnostic is from Nevins (2011). He suggests that if the morphemes that expone phi-features on the verb vary with the tense value of the verb (or similar inflectional category), then they are manifestations of agreement on T (or similar head). In contrast, if such morphemes remain invariant across all TAM categories, then they are clitics. Indeed, Kramer (2014) shows that Amharic OMs do qualify as clitics by this test: subject agreement is entirely different depending on whether the verb is perfective or imperfective, but the object markers are unaffected by this or any other inflectional change on the verb. OMs are always suffixes at the end of the main verb (but before auxiliaries), and there is only a single paradigm for them, invariant up to phonological changes.

However, Nevins’s diagnostic and ours do not give the same results in other languages. For example, the OMs in both Burushaski and Smbaa would be clitics by Nevins’s diagnostic, whereas they are true agreement according to ours. In Burushaski, subject agreement is a suffix which is intertwined with tense, and varies with tense, but object markers are prefixes on the verb, and there is only a single paradigm for them. Similarly, object markers in Smbaa apparently does not vary with the tense (except perhaps phonologically), in that Riedel (2009: 21) gives only one form for OMs in her Table 2.3 (and this is standard for Bantu languages). So the two diagnostics come into conflict here.

Another prominent diagnostic for clitic doubling as opposed to agreement in the recent literature comes from Preminger (2009). He draws attention to situations in Basque in which putative agreement cannot take place, for example because some other noun phrase intervenes between the agreeing head and the DP with which agreement might be expected. He reasons that if some kind of default morpheme appears in such situations, like the third singular morphology found on impersonal verbs or verbs with quirky case subjects in many I-E languages, then it is a case of true agreement. In contrast, if no overt morpheme is found in such circumstances, then it is a case of clitic doubling. He shows that absolutive marking in Basque is agreement by this criterion, whereas dative “agreement” counts as clitic doubling. This test also works well in Amharic, again as shown by Kramer (2014): third singular masculine subject agreement is used on impersonal verbs of various sorts, but there is no third singular masculine OM when there is no object; rather, the verb lacks a visible OM altogether.

But this diagnostic also does not converge with ours when it comes to languages like Burushaski and Smbaa. We do not have sophisticated data like Preminger’s from Basque to show that object agreement has failed because some other nominal intervenes. But one can at least consider intransitive verbs (especially unergative verbs, which have the same kind of *v* as transitives), where object agreement should fail simply because there is no object to agree with. Neither Burushaski nor Smbaa has any kind of default object agreement marker in this situation, as shown in (72). So Preminger’s test suggests that these languages have object clitics, whereas ours says that they have object agreement.

- (72) a. Síruf hir-i girát-c-aan akhóle. **Burushaski**
 only man-PL.ABS dance-NPST-3PL.S here
 ‘Only men dance here.’ (Willson 1996:19)

- b. U-za-bua.
2SG.S-PF-arrive
'You arrived.' (Riedel 2009:117)

Sambaa

What should we conclude from this mixed evidence? Our conclusion is that Preminger's and Nevins's diagnostics are unreliable. Although stories can be told that make their diagnostics not implausible, the logic of these tests is not completely compelling. For example, it makes sense that, if subject agreement is associated syntactically with T, different tense values *can* condition different allomorphs of subject agreement. But it is also easy to imagine that subject agreement might be spelled out the same way whatever the other features of T might be—and it is even easier to imagine that object agreement might be spelled out the same way, since it is presumably on a different head (*v*). Similarly, there is a clear logic to Preminger's diagnostic, but it begins to unravel if one realizes that a paradigm could also have a special null form which is used as the default, distinct from any overt third person form. This might be especially common for object agreement, since languages often have only a few predicates (if any) that do not have a subject, but almost all have many predicates that do not have an object. There is thus a clear functional reason why it is worth a language's while to have a special null default for when object agreement fails but not for it to have one for when subject agreement fails. Thus both Nevins's and Preminger's diagnostics may be picking up more on differences between subject agreement and object agreement than on the difference between agreement and clitic doubling.

In contrast, we claim that our diagnostic is firmer in that it gets to the heart of what it means for an element to be an agreement morpheme as opposed to a pronoun, and it is grounded in well-established grammatical principles, namely the Crossover Condition and the Binding theory. What does it mean to be a pronominal clitic? It means to be a kind of (weak) pronoun, which falls under the same principles of interpretation as other pronouns. And that leads to restrictions on what the clitic can double, as we have shown. If there are no such restrictions, then there is evidence that the OM is not interpreted as a pronoun (unless there is a relevant difference in structure, as in Section 4.1), so there is no reason to call it a pronoun. Then it is better to call it agreement, since it has phi-features but makes no contribution to the interpretation. That, then, is why we think our diagnostic is better. When all the diagnostics converge, as in Amharic, there is no problem. But when they diverge, as in Burushaski and Sambaa, one needs to make choices. Then it is better to have a small set of theoretically well-grounded diagnostics that go to the heart of the matter than to have a larger set of merely plausible diagnostics that can give conflicting results.

6. Conclusion

In this paper, we have developed a potentially powerful diagnostic for distinguishing between pronominal clitic doubling and object agreement, thus addressing the worrying problem that we started with in Section 1. If an OM can appear with quantified DPs, anaphoric DPs, and DPs containing a bound variable, where the DP is structurally lower than the OM, it is agreement; if it cannot, it is a doubled clitic. We showed how this diagnostic is rooted in well-known principles concerning the interpretation of pronouns, and how it leads to a clitic doubling analysis that has advantages in accounting for complex distribution of OMs in Amharic. Our primary theoretical innovations that undergird this result are (i) the existence of Reduce as a distinct syntactic operation that can apply to copies to create what are effectively pronouns in the course of a derivation, and (ii) the idea that two D(P)s derivationally related by movement can be interpreted separately at LF. We also put our results in a broader cross-linguistic context at several points, comparing with clitic doubling in Spanish, Greek, and Bulgarian, contrasting with agreement in Sambaa and Burushaski, and showing how EPP features on functional heads are a crucial locus of variation for clitic phenomena in Section 3.3. This provides at least the beginnings of an explanation for why clitic doubling seems rarer for subjects than for objects. Next steps would be to further develop and test the cross-linguistic predictions of our approach, and to use the diagnostic to refine typological generalizations about what agreement can and cannot do. We leave these tasks for future work.

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