

Towards a unified theory of movement: an argument from Spanish predicate clefts*

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One of the core tenets of mainstream minimalism is that movement processes affect heads and phrases in different ways. In this contribution, I argue against this claim, and I propose a theory of movement that does not make such a distinction. Conceptually, my proposal is the logical consequence of a set of common assumptions about syntax in general and movement in particular. Empirically, it offers a sound analysis for the predicate cleft construction, illustrated here with data from Spanish.

1. Introduction

The predicate cleft construction is an instance of verb topicalisation, or focalisation. Within the generative tradition, it was first analysed by Koopman (1984), using data from the African language Vata. Ever since, several languages have been listed as having predicate clefts, amongst them Kwa, Nupe, Ewe, Russian, Hebrew, Yiddish, Portuguese, Hungarian, Korean, Serbian, and so on¹. One of the goals of this article is to offer a description of predicate clefts in Spanish, which so far has received no mention in the literature².

Predicate clefts consist, essentially, of an infinitive at the front of the clause, functioning (in the case of Spanish) as a topic. This infinitive is doubled inside the clause by a fully inflected verbal form (1a). It is also possible for the

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¹ The literature contains no mention of this construction for any (West) Germanic language other than Yiddish, and speakers of Dutch, German, and Frisian I have consulted find it ungrammatical (with the exception of Knut Lambrecht, who accepts it for German). It is also interesting to note that this construction does not seem to exist for some speakers of South American Spanish, and yet some others accept it as long as the lower V(P) is replaced by *hacer* 'to do', which makes it reminiscent of a pseudo-cleft (José Camacho, p.c.).

² In fact, the construction has been virtually ignored. The only reference to it I have found so far is a mere paragraph in page 2372 of Bosque & Demonte's (1999) descriptive grammar. This short passage does little more than simply acknowledging the existence of the construction and hinting, rather vaguely, at a connection with clitic left dislocation structures and (pseudo)clefts.

fronted infinitive to pied-pipe some VP internal material, like objects (1b), PPs (1c), and so on. Notice that nominal objects are doubled by a clitic, whereas non-nominal objects simply leave a gap.

- 1) a. *Comprar*, Juan *ha comprado* un libro (aunque luego no lo ha leído)
 buy.INF J has bought a book but later not CL has read
 ‘As for buying, Juan has bought a book, although he didn’t read it later’
- b. *Comprar un libro*, Juan lo *ha comprado*
 buy a book J CL has bought
 ‘As for buying a book, Juan has bought it’
- c. *Reirse de Maria*, Juan *se ha reído*
 laugh.SE of M J SE has laughed
 ‘As for laughing about Maria, Juan has laughed’

For exposition’s sake, let us call the fronted infinitive the *topic* and the inflected verb the *tail*³. The predicate cleft construction raises several interesting questions, but in this article I will concentrate on a single one: what is the relationship between the topic and the tail? I will show that (at least for a subset of Spanish speakers) predicate clefting involves movement. That is, *comprar* ‘buy’ and *ha comprado* ‘has bought’ in (1) are members of a movement chain, which has the rather exceptional property that more than one of its links are phonetically realised.

Once it is established that movement is involved, the most intuitive analysis is to say that the topic is a remnant VP, containing the verb and the trace of the object. I will argue that such analysis is incorrect, primarily because there are no plausible operations that can empty the VP of everything but the infinitive. Hence, I propose that what moves in predicate clefts is a bare verbal head, namely V^0 (or, alternatively, v^0 , I will leave the exact category as an open question), much as in Koopman’s original analysis. This conclusion goes counter to the received ideas about movement. In fact, I will argue that it can only be implemented if one adopts a system in which, as I said before, heads and phrases are not subject to different conditions on movement.

2. The theory of movement

Modern syntactic theory distinguishes two types of movement processes, namely, head and phrase movement, each one with well-defined properties and constraints. On the one hand, phrase movement affects XPs⁴, which are moved to a specifier/adjoined position. Moreover, phrase movement may feed and bleed other syntactico-semantic processes, such as binding or scope. On the other hand, head movement affects X^0 s, and adjoins them to another head,

³ These are mere convenience labels, and they aren’t to be understood as having any theoretical significance.

⁴ Whether phrase movement can also affect intermediate projections is quite unclear, although the debate is irrelevant for this article. For discussion, see Epstein *et al* (1998) and references.

without any semantic impact⁵. Locality is another domain in which head and phrase movement differ: while XPs may move across indefinitely long distances (as long as some locality principle –such as relativised minimality or phase theory- is respected), whereas heads may not move over the next head up (the Head Movement Constraint, Travis 1984). Finally, after head movement applies, a moved head and its host form an indivisible unit (incorporation, Baker 1988)⁶, whereas this is not the case for phrase movement.

Given this list of differences, it might seem quite inappropriate to claim that the head vs. phrase movement dichotomy should be abolished. This is, however, what I intend to do here. As will be shown in the remainder of this section, this distinction stems from assumptions made in older models of grammar. Said assumptions are no longer made, which undermines the motivation for a head vs. phrase movement distinction. In other words, given the currently accepted model of syntax and phrase structure (Chomsky 1995a, b), movement should be a unique process. In the pages that follow, I will lay out this reasoning in more detail, and show (section 3) that it can shed light on the analysis of predicate clefting.

2.1. A brief history of movement

In the beginnings of generative grammar, transformations were free. The theory offered the possibility to write any transformational rule one wished, without restrictions on any of its parts. This, of course, was not an acceptable state of affairs, because many of these rules were not attested in natural language. Consequently, some theoreticians turned to the task of constraining the rule system, the most famous attempt being Ross (1967). Another famous study is Emonds (1970), who introduced the idea of structure preservation. He gives the following general format for rules:

2) *Emonds (1970:29)*

$$W - ({}_B X) - Y - Z - ({}_B _) \rightarrow W - ({}_B _) - Y - Z - ({}_B X)$$

In this schema, the constituent X has been moved from one position to another. Crucially, both positions are marked as $({}_B _)$. This is the essence of structure preservation: transformations may only target positions that are marked as being of the same kind. That is, NPs may only move to NP positions, Vs may only move to V positions, and so on.

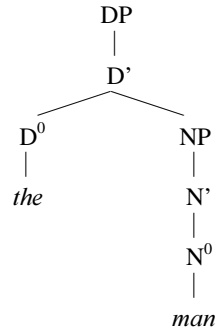
The situation changed in the late 1970s, where the rule system gave way to the X-bar schema and the more general Move α . The idea of structure preservation was not abandoned, though: it was re-interpreted in the emerging distinction of projection levels. Thus, heads, being X^0 -type elements, may only appear in X^0

⁵ Though see Lechner (2004) and Etxepare & Grohmann (2005) for a few cases in which head movement may have consequences in interpretation, and Matushansky (2003) for an attempt at explaining why this is not usually the case.

⁶ See Roberts (1991) for arguments in favour of the existence of excorporation.

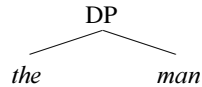
positions, whereas phrases, being XP-type elements, may only appear in XP positions. These constraints resulted in the introduction of vacuous projections, whereby a bare head may project up to the XP level, without actually taking any complements or specifiers, only to be allowed in an XP position.

3) *Vacuous projection in X-bar theory*



However, Fukui (1986) and Fukui & Speas (1986) already hinted at the possibility of eliminating X-bar theory. This idea was laid out in more detail by Chomsky (1995b) as the Bare Phrase Structure hypothesis (BPS). The intuition behind BPS is that structure building is a function of merger and movement alone, with no place left for X-bar-theoretic notions. Of importance here are the re-definitions of heads and phrases⁷. A head (X^{\min}) is taken to be a node that does not dominate any projection of itself (i.e., a terminal node), whereas a phrase (X^{\max}) is taken to be a node that is not dominated by any projection of itself, a non-projecting node. Thus, in BPS, (3) can be interpreted as in (4).

4) *A BPS representation*



2.2. Eliminating head movement

How is structure preservation encoded in a system such as BPS? Chomsky (1995a) proposes the following condition:

5) *The Chain Uniformity Condition*

A movement chain must be uniform with regard to its phrase structural status

⁷ Chomsky's claim is that heads and phrases should be understood as derived concepts, not as primitives. We shall return to this point later.

What (5) means is that the links of a movement chain should agree in their X^{\min}/X^{\max} status. That is, if the lower link is an X^{\max} , so must be the upper link. Movement chains that do not abide by this condition are ill-formed. Thus, according to Chomsky, the Uniformity condition does the same job as different formulations of structure preservation did in earlier stages of the theory. I do not think, though, that this claim is correct. Before the discussion starts, let us list the entire set of conditions on movement chains that Chomsky proposes.

6) *Chomsky's conditions on movement chains*

- a. **C-command**: a moved element must c-command its trace
- b. **Cyclicity**: movement must take place to the root of the tree
- c. **Uniformity**: a movement chain must be uniform with regard to its phrase structural status

Chomsky writes that these three conditions are “natural”, though he does not develop this qualification further. Let us explore it, then. C-command is a general condition on dependencies (cf. the recurrent statement in the literature *x...y is (not) a well-formed dependency iff x c-commands y*). Therefore, it is natural that it applies to a sub-case of dependencies such as the one between a moved constituent and its trace. Similarly, cyclicity is a general condition on grammar (not only in syntax, but also in phonology), so one can expect that movement, as well as many other processes, should abide by it.

Given this reasoning, though, Uniformity stands in a delicate position, since there isn't anything else in syntax that it could be relevant for. Its only purpose seems to be to restrict the form of movement chains. In fact, it seems to me that Uniformity may not even be extended to non-movement chains. Consider, for instance, an Agree relation between a C head and a wh- phrase lower down in the clause⁸. One possibility is that Agree relates the [+wh] features of both elements. In this case, Uniformity is irrelevant, because features cannot be assigned any phrase structural status (the constituents that carry the features can, but the features by themselves cannot). If, on the other hand, we take Agree to relate the actual constituents that carry the features, the relation would involve a head (C^0) and a phrase (wh-), in contradiction to Uniformity. The conclusion, then, is that, with regard to non-movement chains, Uniformity is either irrelevant or incorrect. Consequently, its domain of application must be reduced exclusively to movement chains.

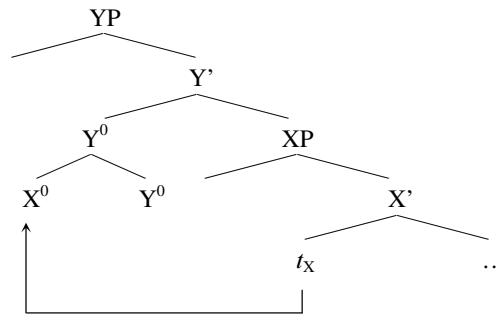
Even granting this conclusion, the status of Uniformity in the theory of movement is quite suspicious. Recall that in BPS, structure building is defined as successive applications of merger and movement, without making reference to X-bar-theoretic notions. Chomsky argues that the notions of head and phrase, even though not primitives any more, can still be derived relationally (cf. the definitions in section 2.1 above). I agree that heads and phrases can be distinguished in the way Chomsky proposes, but the question here is whether this distinction is relevant at all. After all, structure building simply requires that two constituents are brought together and that one of them provides the

⁸ Whether this relation should be followed by movement is not relevant for the argument.

label for the grouping. The X^0 or XP status of the constituents involved arises as a by-product of structure building, but it does not affect the structure building process itself in any way. Now, if the head vs phrase distinction plays no role in the creation of a syntactic structure, why should it hold such a central place in the definition of movement chains?

Finally, recall that Chomsky himself acknowledges that Uniformity should be dropped in the case of head-to-head movement. Consider a typical such configuration, given below, in which X^0 moves to Y^0 :

7) *Head-to-head movement*



As can be seen, t_X can be considered an X^{\min} , since it does not dominate any projection of itself. However, since it is dominated by some projection of itself, it does not qualify as an X^{\max} . Let us consider now the X^0 adjoined to Y^0 . It is an X^{\min} , for the same reasons as t_X . It is also an X^{\max} , though, since it does not project any further in this position. Thus, (7) instantiates a configuration in which two links of the same chain have different phrase structural status, in contradiction to what Uniformity demands⁹.

It has been shown so far that the Uniformity condition raises several problems, and cannot be maintained once one adopts a system like BPS. At this point, two alternatives are available. The first one is to abandon BPS and revert to a system more similar to X-bar theory, where the distinction between heads and phrases can be expressed more easily (and, as a consequence, the distinction between heads and phrase movement). In this article, though, I want to take a more radical alternative. Namely, I want to explore what the consequences would be if one sticks to BPS and drops Uniformity.

Suppose then, that C-command (6a) and Cyclicity (6b) are the only conditions on movement. The kind of theory of movement this entails is one in which movement processes are not sensitive to the phrase structural status of the targeted constituent. That is, heads and phrases behave in the same way as far

⁹ Chomsky tries to justify this exception by postulating a separate word interpretation component that regulates adjunction to heads. As Carnie (1996, 2000) claims, this allows for the possibility of adjoining XPs to heads. He argues, mainly on the basis of Irish data, that this possibility is actually instantiated. See Svenonius (1998), though, for a criticism of Carnie's analysis.

as movement is concerned. Both will move to specifier/adjoined positions, and both will abide by the same locality conditions (i.e., relativised minimality, phase theory, or equivalent)¹⁰. In the next section, I will provide evidence that heads can move in this way. The argument is based on showing, first of all, that in Spanish predicate clefts, an infinitive (i.e., a bare verbal head) is moving to a left-peripheral topic position in a way reminiscent of phrase movement. Next, it will be shown that the moving category cannot possibly be a phrase. Rather, it has to be a bare head, leading to the conclusion that heads can move in the same way as phrases.

This system raises the question of how head-to-head movement (cf. 7) should be re-analysed. A number of proposals have arisen in the past few years to the effect that it should be viewed as a morpho-phonological operation, as has been proposed a number of times in recent years (cf. Brody 1997, 2000; Chomsky 1998; Abels 2001; Boeckx & Stjepanovic 2001; Bury 2003; Harley 2004). I postpone discussion of this possibility –and other alternatives– until section 4.

3. Movement in predicate clefts

In the paragraphs above, I advanced that predicate clefts involve movement, at least for a subset of speakers. There is another possibility, though, which is to base generate the topic in its surface position, and then invoke a construal relation to link it to the tail. As we shall see presently, teasing these options apart is not a problem unique to Spanish.

3.1. Arguments for movement

Landau (2004), on the basis of Hebrew data, argues that predicate clefting involves A-bar movement¹¹. The main support for this claim is as simple as powerful: the dependency between the topic and the tail observes well-known constraints on A-bar movement. That is, the topic and the tail can be separated by an arbitrary number of (finite) clause boundaries, as long as the familiar conditions on successive cyclic movement are met.

¹⁰ This hypothesis has also been proposed by Toyoshima (2000), on similar theoretical grounds.

¹¹ Evidently, this claim raises the question of why this type of A-bar chains allow pronunciation of more than one link. Landau's answer is that it is because both copies are independently required to be spelled out, overriding economy considerations. The upper copy is pronounced because topic constructions require so (however one chooses to implement this claim), and the lower copy is pronounced so as to provide a morphological host for the inflectional morphemes (see his paper, and Bastos 2001, for further discussion). I will return to this issue in section 3.9.

- 8) ✓ Lenakot, nidme li se Rina amra se Gil kvar nika et ha-xacer
 clean seems me that R said that G already cleaned the yard
 ‘As for cleaning, it seems to me that Rina said that Gil had already
 cleaned the yard’

However, if an island configuration intervenes, predicate clefting results in ungrammaticality. Landau shows that this property holds for *wh*-islands, complex NP islands, adjunct islands, subject islands, and factive islands¹².

- 9) a. ?? Likro, sa’alti matay Gil kvar kara et ha-sefer
 read asked when G already read the book
 ‘As for reading, I asked when Gil had read the book’
 b. * Likro, Gil daxa et ha-te’ana se hu kvar kara et ha-sefer
 read G rejected the claim that he already read the book
 ‘As for reading, Gil rejected the claim that he had read the book’
 c. * Likro, se yevaksu me Gil se yikra et ha-sefer ze ma’aliv
 read that ask from G that read that book it insulting
 ‘As for reading, that Gil should be asked to read the book is insulting’
 d. * Likro, nifgasnu axarey se kulam kar’u et ha-sefer
 read meet after that everybody read the book
 ‘As for reading, we met after everybody had read the book’
 e. * Le’hacbia, Gil hitcta’er se Rina kvar hicbia la avoda
 vote G regretted that R already voted the LP
 ‘As for voting, Gil regretted that Rina had voted for the Labour Party’

Landau also notes that Hebrew predicate clefts do not show the so-called genus-species effect. That is, the topic and the tail must consist of the exact lexical item, *modulo* their different morphology. A predicate cleft in which the tail specifies the meaning of the topic is ungrammatical. This ban follows if predicate clefts arise through movement¹³.

- 10)* Letayel, tasti le Nyu-york
 travel fly to N Y
 ‘As for travelling, I have flown to New York’

2.2. Arguments for base generation

Cable (2004) argues, on the basis of Yiddish and Brazilian Portuguese data, that the topic of a predicate cleft is base generated in the SpecCP position of the clause containing the tail. The topic then may move on to higher SpecCP positions. Cable argues that this analysis is preferable because Yiddish predicate clefts seem to have a dual nature. On the one hand, they show the same behaviour as their Hebrew counterparts with regard to movement tests.

¹² He does not test coordination islands, though. We will return to this point in section 3.3

¹³ Of course, under the assumption that movement leaves copies.

Thus, the dependency can span several clauses, as long as no island configurations obtain on the way. If an island boundary intervenes between the topic and the tail, predicate clefting is blocked.

- 11)a. ✓ Veysn, hostu mir gezogt az er veyst a sakh
 know have-you me told that he knows a lot
 ‘As for knowing, you’ve told me that he knows a lot’
- b. * Veysn, hob ikh gezen dem yidn vos veyst a sakh
 know have I seen the man who knows a lot
 ‘As for knowing, I’ve seen the man who knows a lot’
- c. * Veysn, hostu mir gezogt ver es veyst a sakh
 know have-you me told who it knows a lot
 ‘As for knowing, you’ve told me who knows a lot’

On the other hand, genus-species sentences are grammatical in Yiddish, as shown below. If the topic were a copy of the tail, such judgements would be unexpected. On the other hand, a base generation analysis can handle them without problem

- 12)a. ? Forn, bin ikh gefloygn keyn Nyu-York
 travel am I flown to N Y
 ‘As for travelling, I’ve flown to New York’
- b. ? Essen fish, est Maks hekht
 eat fish eats M pike
 ‘As for eating fish, Max eats pike’

In order to reconcile this apparent paradox, Cable observes that the evidence for movement involves long distance dependencies. However, the evidence for base generation involves dependencies internal to CP. Cable concludes that the topic is base generated in the SpecCP position of the clause containing the tail. Therefore, the relationship between topic and tail is not mediated by movement, and genus-species sentences are allowed¹⁴. Movement effects arise because, in the examples in (11), the topic must move from its original SpecCP to a higher one.

2.3. Resolving the dilemma

The discussion so far has shown that there are arguments supporting both the movement and the base generation analyses. The question at this point,

¹⁴ He argues that the presence of genus-species effects in Hebrew are the consequence of semantic incongruence, rather than stemming from a movement operation. In particular, he claims that Hebrew and Yiddish predicate clefts express slightly different topic-focus articulations. The semantics/pragmatics of genus-species sentences are then compatible with the Yiddish model, but not with the Hebrew one. I don’t believe this answer is correct, though. For one, in my Spanish idiolect, which also disallows genus-species sentences, the ungrammaticality is much stronger –on the verge of unparsability- than could be expected from an inadequate topic-focus articulation. We will return to this point in the next section.

therefore, is: which one is correct? The answer I want to propose is: both. Let us go into the details of this claim.

As Cable correctly points out long distance dependencies always involve movement, in both Hebrew and Yiddish. However, it is surprising that both authors have neglected to test for clause-internal dependencies. Their respective claims about (non)movement are based almost entirely on genus-species effects. There is, nonetheless, (at least) one phenomenon that can be used as a test for clause-internal movement. I am referring to coordinate structures, which, as is well known, are very strong islands for movement (13a). However, they do not block non-movement dependencies, such as anaphoric binding (13b):

- 13)a. * What did Peter read [[a book] and [*t*]]?
 b. ✓ The madman_i killed [[seven people] and [himself_i]]

Therefore, consider a predicate cleft with the structure schematised in (14). Here, the tail is contained inside one of the conjuncts of a coordinate structure. Hence, if predicate clefts involve movement, they should be ungrammatical in this configuration, in analogy to (13a). On the other hand, if no movement obtains between topic and focus, (14) should be grammatical in the same way as (13b) is.

14)Topic [IP[VP [V₁] and [V₂]]]



Note, moreover, that what is expected is a clustering of judgements. That is, if predicate clefts are formed by movement, they will disallow genus-species sentences, and they will disallow the presence of the tail inside a coordinate structure as well. On the other hand, if predicate clefts are formed by base generation, the judgements will be the opposite. Mixed judgements are predicted not to be possible. The validity of these predictions is illustrated in the next section with data from Spanish.

3.4. Spanish predicate clefts

With regard to the movement tests presented in sections 3.1.1 and 3.1.2, Spanish behaves in the expected way. That is, long distance dependencies are possible, as long as no island boundary intervenes.

- 15)a. ✓ Comprar, Juan ha dicho que Maria ha comprado un libro
 buy J has said that M has bought a book
 ‘As for buying, Juan has told me that Maria has bought a book’

- b. ✓ Venir, me parece que ya no vienes
 come to-me seems that already no come
 ‘As for coming, it seems to me that you aren’t coming in the end’

Similarly, predicate clefting is blocked by typical island configurations, such as complex NPs, relative clauses, and adjunct clauses.

- 16)a. * Comprar, he oído el rumor de que Juan ha comprado un libro
 buy have heard the rumour of that J has bought a book
 ‘As for buying, I have heard the rumour that Juan has bought a book’
 b. * Comprar, he visto al hombre que ha comprado un libro
 buy have seen the man that has bought a book
 ‘As for buying, I have seen the man that has bought a book’
 c. * Comprar, he ido al cine después de comprar un libro
 buy have gone to cinema after of buy a book
 ‘As for buying, I have gone to the movies after buying a book’

Subject islands merit a separate mention. As many other languages, Spanish only blocks extraction out of preverbal subjects:

- 17)a. ?* ¿De que equipo crees que [varios jugadores *t*] se dopan?
 of what team think that some players SE dope
 ‘Which team do you think that some players of take drugs?’
 b. ✓ ¿De que equipo crees que se dopan [varios jugadores *t*]?
 of what team think that SE dope some players
 ‘Which team do you think that some players of take drugs?’

Again, as expected, predicate clefting from inside a subject clause is significantly better from a post-verbal position¹⁵.

- 18)a. * Ganar, [que el Athletic ganara la Copa] nos emocionaría
 win that the A wins the cup us excite
 ‘As for winning, that Athletic should win the Cup would excite us’
 b. ✓ Ganar, nos emocionaría [que el Athletic ganara la Copa]
 win us excite that the A wins the cup
 ‘As for winning, it would excite us that Athletic should win the Cup’

The data that will help discriminating between both options are presented below. First of all, (19) represents an instance of predicate clefting from inside a conjunct.

¹⁵ Predicate clefting also reflects idiolectal differences in the strength of islands. I find extraction out of subject islands (17a) not so degraded, and, consequently, (18a) is not that bad for me either. However, the speakers that I’ve asked who find (17a) fully ungrammatical judge (18a) as equally deviant. I take this as a further indication that predicate clefting involves *bona fide* A-bar movement.

- 19) Comer, Juan [[ha comido pescado] y [bebido vino]]
 eat J has eaten fish and drunk wine
 ‘As for eating, Juan has eaten fish and drunk wine’

Some speakers judge this sentence acceptable whereas other do not. Interestingly, there is a correlation with the acceptability of genus-species sentences. The split between speakers is as follows^{16, 17}.

- 20) *Group 1 (where I belong)*
 a. *Comer, Juan [[ha comido pescado] y [bebido vino]]
 eat J has eaten fish and drunk wine
 ‘As for eating, Juan has eaten fish and drunk wine’
 b. *Cocinar, Juan ha asado un pollo
 cook J has roasted a chicken
 ‘As for cooking, Juan has roasted a chicken’

- 21) *Group 2*
 a. ✓ Comer, Juan [[ha comido pescado] y [bebido vino]]
 eat J has eaten fish and drunk wine
 ‘As for eating, Juan has eaten fish and drunk wine’
 b. ✓ Cocinar, Juan ha asado un pollo
 cook J has roasted a chicken
 ‘As for cooking, Juan has roasted a chicken’

As can be seen, there is a clustering of judgements. This is exactly what is predicted if predicate clefts can arise either by base generation or movement. Group 1 use the movement strategy. Hence, (20a) is a regular CSC violation. Example (20b) follows as well. If the topic and the tail are copies created through movement, the same lexical item has to be used in both of them.

On the other hand, Group 2 base generate the topic in SpecCP, without resorting to movement. Since coordinate structures are only sensitive to movement, not construal, relations (as shown in example 7), (21a) does not incur in a CSC violation. Consequently, it is grammatical. The grammaticality of (21b) also follows. Since the topic and the tail are not related through movement, there is nothing preventing the use of different lexical items in

¹⁶ Seth Cable (p.c.) reports an identical paradigm for Brazilian Portuguese, although Cristina Schmidt (p.c.) has expressed some reservations regarding Cable’s data.

¹⁷ Ricardo Etxepare (p.c.) points out that examples like (i) are acceptable even for Group 1 speakers, in contradiction to my claim. Note that this example features a bare NP object (assuming that *a* is more of a case marker than a real preposition). Bastos (2001) reports a similar effect in Brazilian Portuguese, whereby a topic of the form [V + bare NP] need not respect island boundaries, even for speakers for whom island effects are otherwise present. Although neither Bastos nor myself have an analysis to this effect, the correctness of the description is confirmed by the ungrammaticality of (ii), where the topic contains a full DP.

i) ? Ver a alguien, Juan ha visto a Maria
 see to someone J has seen to M
 ii) * Ver a una persona, Juan ha visto a Maria
 see to one person J has seen to M

either position (other than general semantic/pragmatic congruence). Therefore, Group 2 speakers find genus-species sentences grammatical.

3.5. Some further evidence

The conclusion so far is that some speakers form their predicate clefts through A-bar movement. If this is so, these same speakers should also show reconstruction effects, insofar as reconstruction is a defining property of A-bar movement. As will be shown below, this is in fact the case, although the demonstration requires a brief detour.

Huang (1993) points out that VP fronting structures in English have restricted reconstruction possibilities. In particular, an anaphoric object contained in a fronted VP can only be bound by the subject of the clause in which it originates.

(22) [Criticise himself_{i/#j}]_i, John_j thinks that Peter_i has *t*

In this example, *himself* can only be interpreted as co-referential with the embedded subject *Peter*. This contrasts with other cases of long distance movement, such as (23), where anaphors can be bound by higher antecedents.

(23) [Which picture of himself_{i/j}]_i does John_j think that Peter_i took *t*?

Huang's proposal is that the fronted VP in (22) contains more material than meets the eye. On top of the verb and the object, it also contains a copy of the subject, in accordance with the VP internal subject hypothesis. This, together with standard assumptions about binding, explains the properties of the examples above.

Let us see first how the ambiguity of (23) arises. As dictated by Condition A, *himself* needs to be bound by the closest c-commanding antecedent. If the top copy of the wh- phrase is interpreted, no antecedent will be available and the derivation will crash. Hence, this option is discarded. If the wh- phrase reconstructs all the way to the base position, the closest antecedent will be *Peter*. If, instead, reconstruction takes place in the intermediate SpecCP slot, the closest antecedent will be *John*. The ambiguity of (23), then, depends which of the copies of the wh- phrase is selected for interpretation.

The unambiguity of (22) stems from the assumption that it contains a copy of the embedded subject –unlike the wh- phrase in (23), which contains no copies of potential antecedent. Since this copy is also present in whichever position the VP moves to, it will be the closest antecedent for the anaphor in all cases. Co-reference with other potential antecedents is blocked, and (22) is correctly predicted to be unambiguous.

Spanish VP fronting cases containing an anaphor in object position behave in exactly the same way as (22), as shown below in (24). Thus, although compatible with the movement analysis of predicate clefts, this example does not weigh in its favour either. It could be argued that the fronted VP is base

generated in its surface position, along with a *pro* subject co-referential with the “real” subject lower down, and that this would suffice to reproduce Huang’s effects.

- 24) [Reirse de si mismo_{i/*j}], Juan_j cree que Pedro_i se rie a menudo
 laugh.SE of himself J thinks that P SE laughs often
 ‘As for laughing at himself, Juan thinks that Pedro often does so’

To avoid this possible complication, we need to identify cases in which VP internal material is bound by antecedents that cannot have been generated inside the fronted VP –and then moved out leaving a copy. Two such cases (Condition C and variable binding effects) are exemplified below

- 25)a. * [Reirse de Juan_i], el_i cree que Maria se rie a menudo
 laugh.SE of J he thinks that M SE laughs often
 ‘As for laughing at Juan, he thinks that Maria often does so’
 b. ✓ [Reirse de sus_i chistes], todo_i humorista cree que el publico
 laugh.SE of his jokes every comedian thinks that the audience
 se rie
 SE laughs
 ‘As for laughing at his jokes, every comedian thinks that the audience do so’

In (25a), the proper name *Juan* is bound by the pronoun *el* ‘he’, causing a Condition C effect. This is even in spite of them being generated in different clauses, which can only be accounted for if the fronted VP appears in its surface position as a consequence of movement. Similarly, in (25b), *sus chistes* ‘his jokes’ can be bound by *todo humorista* ‘every comedian’, giving rise to a bound reading. Again, this can only be explained under a movement analysis of predicate clefting, which reinforces the conclusion of the previous section.

3.7. The moving category

Having established with enough certainty that predicate clefting involves movement (at least for some speakers) the next step is to determine what the category that undergoes fronting is. The discussion in the previous section showed that, in the case of VP fronting, we are dealing with an entire vP –or whatever category one takes VP internal subjects to be generated in. Therefore, I shall concentrate here on the cases in which only a bare infinitive is fronted, such as (1), repeated below for convenience.

- 1) Comprar, Juan ha comprado un libro (aunque luego no lo ha leído)
 buy.INF J has bought a book but later not CL has read
 ‘As for buying, Juan has bought a book, although he didn’t read it later’

The most intuitive analysis involves movement of a remnant VP, parallel to the standard analysis of Germanic participle fronting (den Besten & Webelhuth 1987). The object moves out of the VP, and what is fronted is the infinitive plus the trace of the object. Under this analysis, (1) would have the structure in (26).

(26) [_{VP} Comprar t_i]_i, Juan ha comprado [un libro]_i t_j

This analysis is attractive in that it makes use of tools already provided by the theory (namely, remnant movement), and, in doing so, it equates the construction to a better-studied one. However, for all its attractiveness, I believe that a remnant movement analysis is not possible here. This type of analysis requires the object to move out of VP, hence it can only be maintained if it can be shown that there is a reasonable cause for the object to move¹⁸. Otherwise, the analysis runs the risk of circularity. I believe, though, that one cannot justify the movement operations necessary to form a remnant VP like the one in (26)¹⁹.

Notice, to begin with, that Spanish has no (visible) scrambling, which, cross-linguistically, constitutes the main means of moving objects out of VP. This casts doubts on the remnant movement analysis from the beginning. To be fair, Spanish does have VOS orders, but this seems to be the result of [VO] moving across the subject, rather than of object scrambling across a subject in VP. This analysis is supported by the fact that, in VOS sentences, the subject must be the rightmost element in the clause (27). This is predicted under a [VO]-across-S analysis, but not under a scrambling analysis, which would impose no extra restrictions on right-peripheral material (cf. Etxepare & Uribe-Etxebarria 2002, Lahousse 2004 for further discussion). All in all, there seems to be no reason to postulate object movement out of VP in Spanish.

- (27)a. ✓ Ha leído el periódico hoy Juan
has read the newspaper today J
'Juan has read the newspaper today'
b. * Ha leído el periódico Juan hoy
has read the newspaper J today

A proponent of the remnant movement analysis may argue that objects move out of VP not via German-style scrambling, but to check in a VP-external AgrO projection. This movement would then be masked by further movement of the verb (à la Johnson 1991, Koizumi 1995). This analysis, however, would be difficult to sustain, since Spanish shows no evidence of overt object

¹⁸ In fact, recall that the seminal remnant movement proposal (den Besten & Webelhuth 1987) capitalised on the fact that German (but not English) independently permits object movement out of VP.

¹⁹ Please bear in mind that I am *not* advocating the elimination of remnant movement across the board. While I believe that remnant movement is a very valuable tool if used judiciously, I also believe that the empirical facts do not justify its use in this case.

movement²⁰. Complements (both DPs and CPs) stranded under predicate clefting behave as though they have not moved at all. For instance, they allow for sub-extraction, which is a property usually associated with unmoved constituents (Diesing 1992, Müller 1998):

- 28)a. ✓ Regalar, [para qué película] te ha regalado Juan [una entrada *t*]?
 give for which film CL has given J a ticket
 ‘As for giving, which film has Juan given you a ticket for?’
 b. ✓ Decir, que le has dicho a María [que Juan ha hecho *t*]?
 say what CL have said to M that J has done
 ‘As for telling, what have you told Maria that Juan has done?’

Also, it is possible to strand a non-specific indefinite, which Diesing (1992) argues are licensed VP internally.

- 29) ✓ Leer, Juan ha leído algo (pero no sé qué)
 read J has read something but not know what
 ‘As for reading, Juan has read something (but I don’t know what)’

Finally, objects stranded under predicate clefting can follow manner and measure adverbs, which are usually taken to be VP adjoined.²¹

- 30)a. ✓ Leer, Juan ha leído tranquilamente un libro.
 read J has read quietly a book
 ‘As for reading, Juan has read a book quietly’
 b. ✓ Leer, Juan ha leído tres veces el mismo libro
 read J has read three times the same book
 ‘As for reading, Juan has read the same book thrice’

²⁰ In fact, Torrego (1998) concludes that “the only evidence in favour of overt object raising in Spanish is purely theory-internal” –namely, the assumption that accusative case is checked VP externally, in SpecAgrOP or equivalent position. In a somewhat different approach, Franco & Mejías-Bikandi (1997) argue that overt object raising only obtains when the object is clitic-doubled. Otherwise, covert raising takes place (or Agree, in more contemporary terms). To control for this possibility, I have avoided the use of clitic-doubled objects in the relevant examples.

²¹ To be fair, these objects can also precede the adverbs, and in some cases this is the most natural option. This does not invalidate the argument, though. To begin with, the examples in (30) by themselves show that it is possible to combine unmoved objects with predicate clefting, contrary to what a remnant movement analysis would predict. Second, postverbal adverbs seem to be the consequence of right-adjunction, rather than leftward object movement over the adverb: in examples like (i) and (ii) –modelled after Pesetsky 1995–, the adverbs take right-to-left scope, suggesting a right-adjunction structure:

- i) Tocar, el cartero ha tocado a la puerta dos veces a propósito
 knock the postman has knocked to the door twice on purpose
 [on purpose > twice]
 ii) Tocar, el cartero ha tocado a la puerta a propósito dos veces
 knock the postman has knocked to the door on purpose twice
 [twice > on purpose]

Even if it was found that nominal objects can be given a plausible raising-to-AgrOP analysis, it would be contentious to extend it to other VP internal constituents that lack case or agreement features, and can still be stranded under predicate clefting. Amongst such constituents are CP complements (31a), PP complements (31b), secondary predicates (31c), and very low adverbs (31d).²² The conclusion, then, is that predicate clefts are not instances of remnant movement.

- 31)a. ✓ Pensar, Juan piensa que mañana lloverá
 think J thinks that tomorrow rain.FUT
 b. ✓ Pensar, Juan piensa en María todos los días
 think J thinks in M everyday
 c. ✓ Ver, Juan ha visto a María borracha
 see J has seen to M drunk.FEM
 d. ✓ Cocinar, Juan ha cocinado el filete mal
 cook J has cooked the steak badly

Johan Rooryck (p.c.) points at a different possibility in terms of selective deletion. That is, (1) above is simply a VP fronting example (no remnant movement), with the added twist that the object is spelled out in the base position of the VP. The relevant structure is given in (32a). This example would differ minimally from its full VP fronting counterparts, the latter being the result of spelling out the object in the upper copy of the VP (32b)

- 32)a. [Comprar ~~un libro~~] Juan ha [comprado un libro]
 buy a book J has bought a book
 b. [Comprar un libro] Juan lo ha [comprado ~~un libro~~]
 buy a book J CL has bought a book

It is not a trivial issue to set up a system of pronunciation and deletion of copies that offers this possibility without over-generating in several other areas, and it is not my task either to develop one here²³. However, let us ignore this problem and assume, for the sake of the argument, that deletion of copies can proceed in the way depicted above. Is there any evidence yet that the fronted infinitive in (32a) is actually part of a full VP? I believe not. Sauerland (1998) shows that phrase movement creates scope islands –that is, a quantifier embedded inside a

²² Low adverbs and secondary predicated may require a more articulate VP structure (along the lines of von Stechow 1996 or Ramchand 2002) than what I am rather simplistically assuming here.

²³ Incidentally, note that this analysis cannot account for the presence of a clitic in (32b). The generalisation is that clitic doubling is possible only if the object is fronted along with the participle. Under this analysis, the object is always fronted, and what varies is where it is pronounced. Thus, one would have to allow chain pronunciation mechanisms at PF to affect the syntactic structure that they receive as an input. Although this modification is perhaps technically possible, it would result in a rather less elegant model of grammar, with a fair deal of counter-cyclicity. At this point, I can't offer an analysis of clitic doubling in predicate clefts, although it is clear that I wouldn't have to deal with this problem, given that I don't assume that the object is always fronted.

larger phrase that has undergone movement cannot QR outside that phrase. This is illustrated below for English.

- 33)a. A girl has dated every boy $[✓ \exists > \forall / ✓ \forall > \exists]$
 b. [Date every boy], a girl has *t* $[✓ \exists > \forall / * \forall > \exists]$

Example (33a) is ambiguous, as is well-known. Example (33b), on the other hand is unambiguous. The universal quantifier is trapped inside the fronted VP, and cannot move out of it to yield the $[\forall > \exists]$ reading. The $[\exists > \forall]$ reading is still available under reconstruction, but no other possibilities are allowed. In this respect, Spanish behaves in the same way as English: (34a) is ambiguous, but (34b) only allows the $[\exists > \forall]$ reading.

- 34)a. Una chica ha salido con todos los chicos
 a girl has gone out with all the boys
 $[✓ \exists > \forall / ✓ \forall > \exists]$
 b. [Salir con todos los chicos], una chica ha salido
 go out with all the boys a girl has gone out
 $[✓ \exists > \forall / * \forall > \exists]$

Interestingly, the inverse scope reading becomes available again if only a bare participle is fronted.

- 35) [Salir], una chica ha salido con todos los chicos
 go out a girl has gone out with all the boys
 $[✓ \exists > \forall / ✓ \forall > \exists]$

If the two representations in (32) differed only in their PFs –that is, if their LFs were identical-, one would not expect to find any scope differences between (34b) and (35). In particular, since (35) would also be an instance of VP fronting –only that part of the VP is not pronounced-, it should only display the $\exists > \forall$ reading, in the same way as (34b). In order to get the extra scope reading, one would have to assume that (34b) and (35) differ not only in their PFs, but also in their LFs. That is, in (35), the object is not only pronounced in the lower position: it is also interpreted there, so that it is not trapped in a scope island and can QR over the subject. The topic contains no copy of the object at either PF or LF.

The same argument can be made with idioms. As shown below, given a verb-object idiom, the idiomatic reading is lost if the infinitive strands the object (36a/37a). However, if the infinitive pied-pipes the object, the idiomatic reading reappears (36b/37b).

- 36)a. Tomar, Juan nos ha tomado el pelo
 take J us has taken the hair
 $✓$ *Juan has taken our hair (a scalp-cutting Indian?)*
 $*$ *Juan has pulled our leg*

- b. Tomarnos el pelo, Juan nos lo ha tomado
 take.CL the hair J us CL has taken
 ✓ *Juan has taken our hair*
 ✓ *Juan has pulled our leg*
- 37)a. Estirar, Juan ha estirado la pata
 stretch J has stretched the leg
 ✓ *Juan has stretched his leg (as a warm-up exercise)*
 * *Juan has kicked the bucket*
- b. Estirar la pata, Juan la ha estirado
 stretch the leg J CL has stretched
 ✓ *Juan has stretched his leg*
 ✓ *Juan has kicked the bucket*

It is usually assumed that idiomatic readings are only possible if the parts of the idiom have not been moved away from each other²⁴. Now, take (36a). If this example has been formed by full VP fronting, and differs from (36b) only in its PF, why is it that the idiomatic reading is blocked? The obvious solution would be to say that their LFs are different too, and that the object is not interpreted in the topic position in (36a). Under this analysis, the verb and the object would not be together, which may account for the missing idiomatic reading. However, this solution leads the same observation as above: the object is not present in the topic position at either LF or PF.

This observation is relevant because a core feature of minimalism is that PF and LF are the only levels of representation. If the object is not present in the topic position at either level, justifying its existence becomes a difficult issue. The only justification, I believe, would be phrase-structural, namely, an appeal to the X-bar-theoretic concept that heads cannot move over long distances. However, if this assumption is dropped (as I have justified in section 2), nothing prevents predicate clefting to involve movement of a bare verbal head. This is a preferable analysis, since (a) it would not be necessary to develop a special system of copy pronunciation and deletion to handle the representations in (32); and (b), it would account trivially for the fact that the object is neither pronounced nor interpreted in the topic position, since the object never was pied-piped to that position.

²⁴ Ricardo Etxepare and Carme Picallo (p.c.) point out that some idioms (such as *tocar las pelotas*, ‘to be annoying’, lit. ‘to touch one’s balls’) do retain the idiomatic reading under predicate clefting (i). Notice, however, that the idiomatic reading also survives under other A-bar movement processes, such as NP topicalisation (ii). In contrast, idioms like (36) lose the idiomatic reading under topicalisation (iii) as well as under predicate clefting. I take this to be a consequence of the varying sensitivity of different idioms to movement operations, and therefore not a real counterargument. In this respect, see also footnote 13.

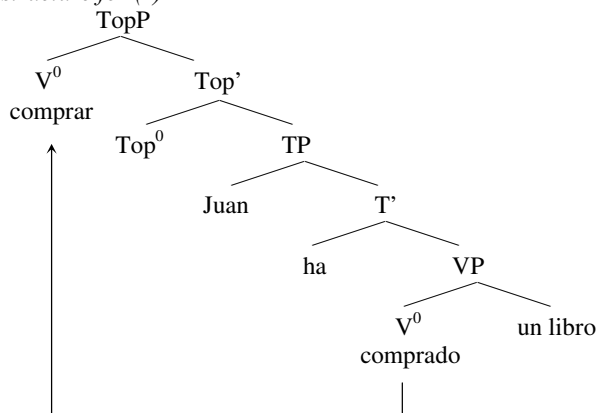
- i) Tocar, Juan nos ha tocado las pelotas [idiomatic reading OK]
 touch J us has touched the balls
- ii) Las pelotas, Juan nos las ha tocado [idiomatic reading OK]
 the balls J us CL has touched
- iii) El pelo, Juan nos lo ha tomado [idiomatic reading out]
 the hair J us CL has taken

3.8. The proposal

The proposal that I have just sketched is that (1), repeated below one more time, has the structure depicted in (38)²⁵.

- 1) Comprar, Juan ha comprado un libro (aunque luego no lo ha leído)
 buy.INF J has bought a book but later not CL has read
 ‘As for buying, Juan has bought a book, although he didn’t read it later’

38) A structure for (1)



In this tree, the bare verbal head moves in one step to the SpecTopP position. As has been discussed in the previous pages, this movement is theoretically legitimate and captures the properties of predicate clefts in a way that an incomplete VP fronting analysis cannot. The final details of the analysis will be tackled in the next section.

3.9. A brief aside on double pronunciation

A question that has been ignored so far is, why is it that A-bar chains in predicate clefts allow for pronunciation of more than one link? This is a rather complicated issue that I cannot tackle in full here. I wish to offer some remarks on it, though.

Landau (2004) proposes that predicate clefting is a case in which well-formedness conditions can override economy factors. More specifically, the most economical derivation (PF-wise) is one in which only one copy of the chain is pronounced. This, however, would lead to a deviant output, according

²⁵ I assume, for expository convenience, that topics occupy SpecTopP. The analysis does not hinge on this though, and it can be adapted without trouble to a system in which topics are adjoined to TP or any similar projection.

to Landau. If only the lower copy is pronounced, we violate whatever forces topics to be pronounced in a fronted position (e.g., a strong [topic] feature on C^0 , though the exact implementation is irrelevant here). If, on the other hand, it is the upper copy alone that it is pronounced, the derivation will crash at the morphological level: the inflectional morphemes will find themselves without a suitable stem to attach to, violating the ban against un-affixed affixes. Therefore, double pronunciation kicks in as a way to satisfy both requirements, in spite of economy factors.

This account, as is easy to see, relies on the assumption that inflectional morphemes are bound morphemes that need to attach to a verbal stem. If the verbal stem is not missing, the derivation crashes. This reasoning seems, by and large, to be correct for Hebrew, Spanish, Brazilian Portuguese, and possibly Yiddish as well. However, it is simply not the case that it can be applied to every language. For instance, Aboh (2003, 2004) mentions that several African languages have predicate clefts. Yet, in many of these languages, inflection is realised by means of free morphemes, which do not cliticise to the verbal root. Obviously, Landau's solution cannot be generalised to these cases, and I haven't anything to offer in this respect.

Spanish needs some further comment in this respect as well. Although Landau's solution would work smoothly, as far as I can see, it is interesting to note that double pronunciation can be obviated in those cases in which VP ellipsis is possible –that is, a modal taking a bare VP complement²⁶. One such case is presented below.

- 39)a. ✓ Juan quiere leer un libro, y María también quiere [e]
 J wants read a book and M also wants
 'Juan wants to read a book, and Maria wants to as well'
- b. ✓ Leer un libro, Juan quiere *t*
 read a book J wants
 'As for reading a book, Juan wants to'

This seems to suggest that, in Spanish, there is a general ban against not pronouncing VPs, which for some reason does not affect the complements of modals. This points at a unified analysis of VP ellipsis and double pronunciation, at least for Spanish. If this hypothesis could be extended to the African languages Aboh cites, the overall picture would be quite neat –i.e., double pronunciation would not be random, but it would always be

²⁶ I would like to thank Rajesh Bhatt for suggesting this connection to ellipsis. A more interesting way of characterising Spanish VPE is that it can only occur in constructions where clitic climbing is allowed. Intriguingly, though, clitic climbing out of an ellipsis site is impossible:

- i) Juan quiere leer un libro, y María lo quiere leer también
 J wants read a book and M CL wants read also
- ii) *Juan quiere leer un libro, y María lo quiere [e] también
 J wants read a book and M CL wants also

Other types of extraction (e.g., wh- movement, relativisation...) are also banned, suggesting that what we are dealing with here is a silent VP proform without internal structure, rather than a full VP that fails to be pronounced. Many thanks to Kyle Johnson and Jeroen van Craenenbroeck for discussion on this issue.

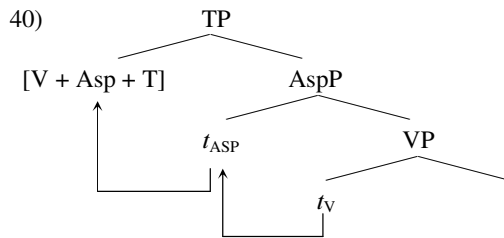
independently required, be it because of morphological reasons, or because ellipsis is also banned. At present, though, I have no data that (dis)confirm this hypothesis.

4. On head movement

4.1. The head movement paradox

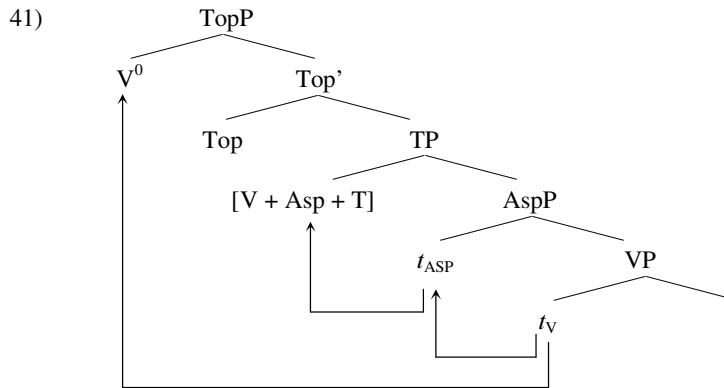
As mentioned in section 2, I follow Landau's account of the morphological shape of the topic and the tail. The topic is simply a bare verbal head, without any kind of temporal or aspectual features attached to it. Hence, the morphological component spells it out as an infinitive by default. On the other hand, in the tail, the verbal head has combined with higher inflectional features, therefore it surfaces as a fully inflected verbal form. While I believe this is a reasonable account of the morphology of predicate clefts, it also raises an important movement paradox concerning how traditional head-to-head movement should be reanalysed. This is a much larger topic than I can possibly cover here, and my aim in this section is simply to provide a few remarks on the problem.

For the sake of the argument, suppose that head-to-head movement of the traditional sort (as depicted in 7) is possible, and let us run through the derivation of a predicate cleft. First, V^0 is selected, and undergoes head movement up to the T^0 level, as shown below (specifier positions omitted for ease of exposition).



The next step required to derive a predicate cleft, if we accept the conclusions of the previous section, would be to move V^0 to SpecTopP. This step is not so straightforward, though. For one, it will not do to assume that V^0 excorporates from the $[V + Asp + T]$ complex (even granting that excorporation is a valid syntactic process). Such an analysis would predict that the topic in predicate clefts could only consist of a bare infinitive. Cases in which the infinitive pied-pipes the object simply cannot be derived under this analysis. We conclude, then, that excorporation is not a valid solution.

Another possibility would be to make use of the lower copy of V^0 . That is, at the point represented in (40), instead of excorporating V^0 from the complex head it is contained in, one would simply resort to the copy left inside VP, leading to the following representation.



This derivation, however, must be excluded as well, since copies of moved constituents are not generally accessible for further operations. As an example of this constraint²⁷, consider the following pair:

- 42)a. ✓ What is there [a book about *t*] on the shelf?
 b. * What is [a book about *t*] on the shelf?

The crucial difference between (42a) and (42b) is that the subject [*a book about t*] remains in its VP-internal position in the former, but not in the latter. This effect is usually subsumed under the Freezing Principle, whereby a moved item becomes an island for extraction –i.e., it gets “frozen” (cf. Stepanov 2001 for a recent account and references). Thus, in (42a), the subject is still in its base position, hence extraction is licit. On the other hand, in (42b), the subject has moved and extraction is banned. Now, for this account to work, it must be the case that lower copies are not accessible. Otherwise, it should be possible to ignore the moved subject in (42b) and extract the *wh*-word from its lower copy, which has been independently shown to allow extraction. If such a derivation were possible, (42b) would be predicted to be grammatical, contrary to fact. Hence, we are forced to conclude that copies of movement cannot take part in further movement operations, which in turn invalidates the derivation in (41).

It seems like the only way to end up with a derivation like (38) is if V^0 does not incorporate at all into higher heads, so that it can be moved to a topic position (optionally pied-piping more material) without invoking *ad hoc* syntactic operations. On the other hand, incorporation seems to be necessary in order to combine V^0 with higher inflectional features and derive the correct verbal morphology. So, here is the paradox. A predicate cleft seems to require the verbal head simultaneously to incorporate and to not incorporate into higher functional heads.

²⁷ For more intricate argumentation leading to the same conclusion, see van Koppen (2005).

4.2. Head movement without movement

So as to resolve this paradox, I want to propose that V^0 , contrary to superficial appearances does *not* incorporate into higher heads. This hypothesis allows the V^0 to remain available for movement to a topic position. The question now is how to get the results of incorporation without using incorporation. Before getting to that point, let me digress for a moment.

Head-to-head movement has been the target of very fierce criticism over the past years. For instance, it has been pointed out that it requires the adoption of a specific definition of c-command²⁸, so that a moved head c-commands its trace. It is also exempt of the Extension Condition, since it does not apply to the root of the tree. It is also regulated by a locality constraint, (the Head Movement Constraint), which, unlike other movement and non-movement locality constraints, is not defined over syntactic features, but over phrase structural status²⁹. Because of these observations, a large number of researchers have concluded that head-to-head movement should be abandoned, and its effects re-analysed in some other way. There is not so much agreement, though, in how this should be done. Individual differences aside, one can distinguish two approaches to the problem. One of them stipulates that heads simply cannot move. What seems like head-to-head movement is actually remnant movement of the XP containing the head in question. This analysis has been developed by, amongst others, Koopman & Szabolcsi (2000), Mahajan (2003), and Haddican (2004). As is easy to see, this type of analysis requires massive use of remnant movement. However, recall from section 3.7 that movement of V^0 in Spanish cannot be plausibly taken to be remnant movement. While the argument there was based on predicate cleft sentences, it is also extensible to attempts to rework V-to-T movement as remnant VP movement. Moreover, the ultimate purpose of this type of analysis is to re-create the effects of head movement without using head movement. Thus, if such an analysis can be developed to a satisfactory level, it will simply replicate the head movement paradox described in the previous section.

The other approach has been pioneered by Brody (1997, 2000), and followed by Abels (2001), Bury (2003) and Harley (2004)³⁰. The idea behind this approach is that the morpho-phonological component can “see” a set of adjacent heads (i.e., the heads of a series of successive projections) and spell them out as one word. This idea has received different implementations (i.e., Brody, Abels, and Bury resort to a non-orthodox theory of phrase structure, while Harley assumes that phonological matrices can percolate up the syntactic tree). The common feature of these theories is that they can replicate the effects of head movement without actually invoking movement. All that is claimed is that the morphological component can spell out together a number of head, as

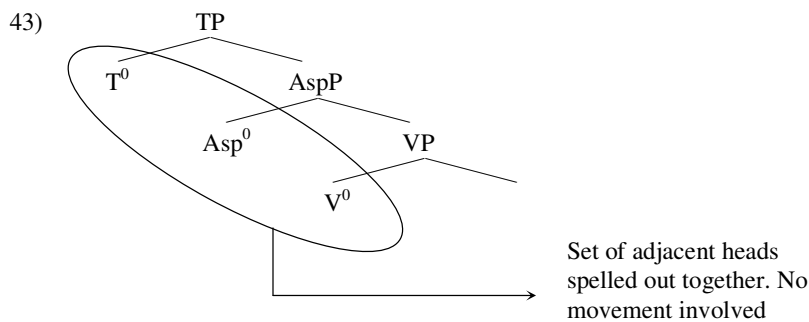
²⁸ Namely, a definition incorporating the segment-category distinction, which is arguably not the simplest one.

²⁹ Recall also that the descriptive correctness of the HMC has been challenged time and again, e.g., Rivero’s work on Slavic participle fronting.

³⁰ See also Chomsky (1998) and Boeckx & Stjepanovic (2001) for a similar conception, and Zwart (2001) and Baltin (2002) for a criticism.

one lexical item. This lexical item may be inserted in any of the head positions involved, giving the impression of head movement.

Applying this theory to the case in point, V-to-T movement in Spanish (including any intermediate projections, like *v* or Asp) may be viewed simply as morphology conflating all these heads together, and spelling them out as one word in T^0 . This can be represented as in (43), where, again, specifier positions have been omitted. Admittedly, this is quite an impressionistic representation, but I will not say anything else about it here. I leave a more detailed account of this theory for future work:



Since no movement has been used in deriving the V-to-T movement effect, the V^0 head is still available to be moved to a topic position, as was shown in (38) above.³¹ The finished derivation is given below:

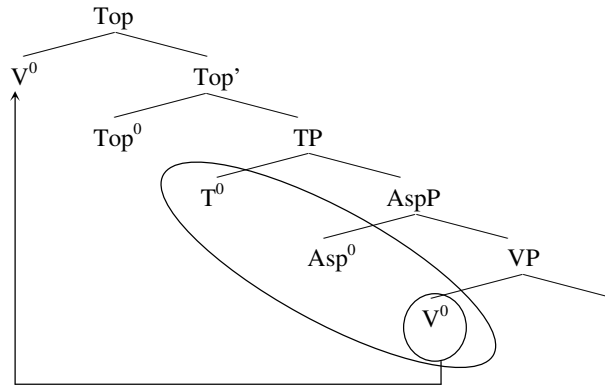
³¹ One possible problem with this analysis comes from predicate clefts in passive clauses, where the topic is necessarily a passive participle agreeing with the passive subject

i) Reparada, la puerta ha sido reparada
fixed.FEM.SG the door has been fixed.FEM.SG

If we assume that passive morphology is contributed by *v* (cf. Embick 1997 and references), then this example would require movement of a complex head [V + *v*]. That is, prior to head-to-spec movement, it would be necessary to apply head-to-head incorporation. As pointed out by Karen Zagona (p.c.), it is not necessarily a problem to have head-to-head and head-to-spec movement co-existing in grammar, although it seems to me that such an approach would require further restrictions lest it overgenerates in several other domains. Unfortunately, such an extension is beyond the scope of this paper. Incidentally, though, notice that a remnant movement analysis would not work here either. While it is true that the object moves out of VP, it is still possible to strand other complements under predicate fronting, in, e.g., ditransitive constructions.

ii) Retirada, la medalla no le fue retirada al soldado
taken away.FEM.SG the medal not CL was taken away.FEM.SG to.the soldier

44)



A possible alternative would be to adopt Phillips' (1996) top-down framework, and in particular his analysis of long head movement in Slavic. In a nutshell, his analysis involves base-generating a participle in the topmost projection of the clause. The structure grows downwards, and when the VP level is reached, the participle is moved from its topic position to the V^0 position. Some extensions would be necessary, though. To begin with, this downward movement is invisible in Slavic: Phillips postulates it to avoid complications with theta and case theories. In predicate clefts, it should be visible, although I do not think this would pose any special complications. Another extension is that, in predicate clefts, this kind of movement should be able to feed word formation (so as to get a fully inflected form out of a non-finite one). This is an issue that Phillips does not explore, although as far as I can see, it is not incompatible with his general conception of head movement. Although I find this is an attractive avenue for research, I must leave it for future work.

5. Conclusion

In this article, I have proposed a rather unorthodox theory of movement. However, for all of its strangeness, I believe it is conceptually attractive, since all movement processes are viewed as one and the same phenomenon. Moreover, it has been shown that it provides a straightforward analysis of the predicate cleft construction, which may be easily extended to other similar cases, such as participle fronting in Slavic. Migdalski (2004) analyses it as remnant VP movement into SpecTP, for agreement reasons. While he provides extensive evidence in favour of SpecTP being the landing site, his analysis is still suspicious in that there is no evidence for the remnant VP status of the fronted participle. In most Slavic languages, full VPs cannot move, so it is strange that a remnant VP can (cf. Lema & Rivero 1987). However, if we concede that bare heads can move into specifier positions, we eliminate this problem from his otherwise convincing analysis.

Another such case involves participle fronting in Germanic. Although it is quite customary to analyse it as remnant VP fronting (after den Besten & Webelhut's 1987 seminal work), Fanselow (2001) has pointed out that this is not always possible. Scrambling in West Germanic is categorically selective, meaning that some types of elements (such as secondary predicates) cannot scramble out of VP (45a/b). As expected, a participle fronting construction with a scrambled secondary predicate is degraded as well (45c), but, surprisingly, if the secondary predicate has not scrambled, the sentence is grammatical (45d)³².

- 45)a. ✓ ...daß der Karl das Fleisch **roh** gegessen hat
 that the K the meat raw eaten has
 ‘that Karl has eaten the meat raw’
- b. * ...daß der Karl **roh** das Fleisch *t* gegessen hat
 that the K raw the meat eaten has
- c. * Gegessen hat der Karl **roh** das Fleisch
 eaten has the K raw the meat
 ‘Karl has eaten the meat raw’
- d. ✓ Gegessen hat der Karl das Fleisch **roh**
 eaten has the K the meat raw

Other similar cases have been reported in the literature. For instance, Holmberg (2000) argues quite convincingly that instances of stylistic fronting in Scandinavian that target participles involve movement of the participial head to SpecTP. He shows that, object shift is not possible in these cases, hence a remnant VP movement analysis is excluded. Hagstrom (1998) argues that Japanese *wh*- words are composed of an existential quantifier plus a *wh*-morpheme (*-ka*). Later, the *wh*-morpheme (which is arguably a bare head) undergoes A-bar movement into the left periphery of the sentence. In other work (Vicente 2004), I have claimed that verb placement patterns in Basque can only be explained if heads are allowed to move to specifier positions. Virginia Hill and Carmen Dobrovie-Sorin (p.c.) have also pointed out to me that this analysis can be applied to the derivation of supine verb forms in Romanian. All in all, I believe that there is considerable evidence in favour of the theory of movement proposed here.

Two questions are left for future work. The first one is whether it is possible to find similar cases in the nominal domain. I believe this is an especially interesting area to look at, given the recent trend of analysing DP-internal word order variations in terms of remnant movement (cf. Schlonsky 2004, or Aboh 2003, and references there). The second pending question, which I already mentioned earlier, is a more detailed description of the mechanism of “head movement” described in section 4. In particular, the specific question that I would like to explore is whether it is the consequence of a special theory of phrase structure (as Brody, Abels, Bury, and Phillips claim), or of percolation of phonological matrices (as Harley proposes), and what the consequences are (whatever the answer) for the larger theory of syntax and morphology.

³² These data are taken from Muller (1998).

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