

# On the distribution of headless XP movement and ellipsis: a reply to Funakoshi\*

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## Abstract

Funakoshi (2012, 2014) proposes incorporating an adjunction vs. substitution distinction into the theory of head movement as a means to derive the distribution of headless XP movement and headless XP ellipsis (i.e., headless XP movement/ellipsis is licit only if head movement of  $X^0$  out of XP happens by substitution). In turn, the possibility of head movement by substitution is argued to be contingent on the availability of an unoccupied specifier position in the immediately higher projection. On the basis of data from Irish, Tongan, English, and German, I argue that this correlation is incorrect: the availability of unoccupied specifier positions is neither a sufficient nor a necessary condition for either headless XP movement or headless XP ellipsis. As a consequence, the adjunction vs. substitution distinction in head movement is left without empirical support.

## 1 Background and goals

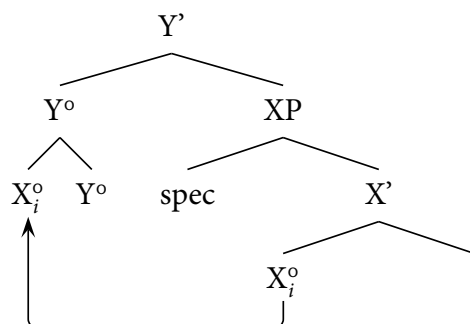
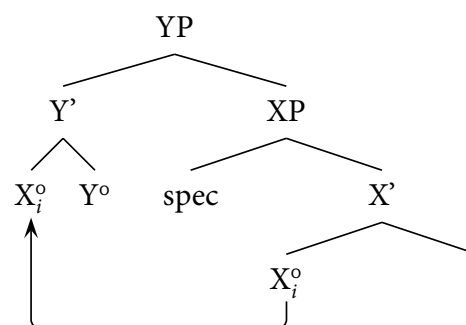
In the standard theory of movement, phrase movement can proceed either by adjunction or by substitution (properly, and respectively, by Pair-Merge and by Set-Merge), but head movement may only proceed by adjunction (see, e.g., the discussion in Chomsky and Lasnik 1995:43–47). Recently, Funakoshi (2012, 2014) has proposed to augment this system by letting head movement also proceed by substitution. This is a conceptually appealing proposal, as it leads to a more streamlined system where the differences between head and phrase movement are reduced to a minimum (arguably, to the size of the moving constituent, as defined by the bar level of its topmost node). In support, Funakoshi argues that assuming an adjunction vs. substitution distinction for head movement can help understand the crosslinguistic distribution of certain types of phrasal movement and ellipsis: specifically, he argues that if  $X^0$  undergoes head movement

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out of XP, then subsequent movement or ellipsis of XP (headless XP movement/ellipsis, in his terminology) is licensed only if  $X^{\circ}$  has moved by substitution (assuming, obviously, that the rest of the familiar conditions on movement and ellipsis are independently satisfied). In turn, head movement by substitution of  $X^{\circ}$  is itself licensed if the immediately higher phrase YP has at least one unoccupied specifier position. The goal of this reply is to argue that this correlation is factually incorrect: the availability of unoccupied specifier positions is neither a sufficient nor (more importantly) a necessary condition for either headless XP movement or headless XP ellipsis. Consequently, the adjunction vs. substitution distinction in head movement is left without empirical support.

Let's begin by considering the representations in (1) and (2), which illustrate head movement by adjunction (HMA) and head movement by substitution (HMS), respectively. By assumption, the difference between adjunction and substitution reduces to the labeling of certain nodes, without any effects on either constituency relations or linear order. Under HMA, the upper copy of  $X^{\circ}$  is immediately dominated by one segment of the category  $Y^{\circ}$ , with XP as the complement of  $Y^{\circ}$ . In contrast, under HMS, no multisegment  $Y^{\circ}$  obtains:  $X^{\circ}$  replaces XP as the complement of  $Y^{\circ}$ , and XP becomes a right-hand side specifier of YP.

(1) *Head Movement by Adjunction*(2) *Head Movement by Substitution*

Of interest for our purposes is the way in which the HMA vs. HMS distinction interacts with subsequent operations (see [Funakoshi 2012:§3](#) and [Funakoshi 2014:ch. 3](#) for a detailed discussion). [Funakoshi](#) defines a theory of locality where the upper copy of  $X^{\circ}$  qualifies as an intervener for Agree between a higher head  $Z^{\circ}$  and XP under HMA, but not under HMS. On the assumption that movement is contingent on the establishment of an Agree relation, it follows that HMA of  $X^{\circ}$  bleeds subsequent movement of XP, but HMS does not. Similarly, on the assumption that XP movement is a prerequisite for XP ellipsis,<sup>1</sup> it also follows that HMA of  $X^{\circ}$  bleeds subsequent ellipsis of XP, but HMS does not. Finally, the theory of locality that derives the previous two points requires intermediate projections (single-bar levels) to be invisible for Agree; from this, it follows that HMA of  $X^{\circ}$  can feed further head movement (whether HMA or HMS) of  $[_{Y^{\circ}} X^{\circ} Y^{\circ}]$ , but HMS of  $X^{\circ}$  bleeds any further movement (whether HMA, HMS, or phrase movement) of  $[_{Y'} X^{\circ} Y^{\circ}]$ .

<sup>1</sup> Although this assumption is arguably incorrect. [Johnson \(2001:444\)](#) points out that “this is not obviously correct for the general case of ellipsis. It wrongly leads to the expectation that NP and IP movement should be possible [...] [a]nd it leaves unexplained why PPs can move but not elide”; similarly, [Aelbrecht and Haegeman \(2012:591\)](#) argue that “making VP ellipsis dependent on VP topicalization is problematic, because VP ellipsis and VP topicalization are not distributionally equivalent”.

	HMA of $X^{\circ}$	HMS of $X^{\circ}$
Allows headless XP movement	no	yes
Allows headless XP ellipsis	no	yes
Allows further movement of $[X^{\circ} Y^{\circ}]$	yes	no

Table 1: Consequences of HMA vs. HMS

This system is internally consistent, so the relevant question is whether its predictions are correct. In turn, answering this question requires having an independent indicator of the distribution of HMA and HMS, lest one ends up arguing in circles. Note that one cannot resort to either the linear order of morphemes within the  $[X^{\circ} Y^{\circ}]$  complex, or the linear order of this complex relative to other constituents, given that, as noted above, neither of these is affected by the HMA/HMS distinction. Instead, [Funakoshi](#) argues (p. 544) that, while HMA of  $X^{\circ}$  is always possible, HMS of  $X^{\circ}$  is possible only if YP has at least one unoccupied specifier position. This requirement is trivially satisfied if  $Y^{\circ}$  can project multiple specifiers, as there is always a possibility to project an additional specifier to accommodate HMS; in cases where  $Y^{\circ}$  is restricted to a single specifier position, HMS is possible only if no other constituent competes with  $X^{\circ}$  for that position.<sup>2</sup> With this conjecture in place, the problem of distinguishing HMA from HMS reduces to the problem of determining whether either one of these two options is available in a particular configuration. [Funakoshi](#) then goes on to argue that the availability of unoccupied specifier positions is, in fact, a good predictor of distribution of headless XP movement and ellipsis —i.e., those languages that have unoccupied specifier positions (Japanese, Hebrew, Irish) also exhibit headless XP movement and/or ellipsis, whereas those that don't (German and English) don't.

However, [Funakoshi's](#) correlation breaks down under closer examination. We will see in §2, on the basis of Irish and Tongan data, that the availability of unoccupied specifier positions is not a sufficient condition for headless XP movement and ellipsis. More importantly, we will see in §3, on the basis of German and British English data, that the availability of unoccupied specifier positions is not a necessary condition either for headless XP movement or ellipsis. Since we cannot take the distribution of unoccupied specifier positions (*qua* a proxy for the distribution of HMA and HMS) as a predictor of the distribution of headless XP movement and/or ellipsis, the HMA vs. HMS distinction in head movement collapses.<sup>3</sup>

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<sup>2</sup> Properly, the crucial factor is the available number of Set-Merges per projection. [Funakoshi](#) divides languages into those that allow at most two Set-Merges per projection and those that allow an unlimited number thereof. On the assumption that Merge of  $Y^{\circ}$  with its complement XP is invariably a case of Set-Merge, it follows that languages of the former type will allow HMS of  $X^{\circ}$  only if no other phrase competes for the remaining Set-Merge application (see [Funakoshi 2014](#) for discussion). This approach creates some non-trivial timing issues under a strictly cyclic approach to structure building, which I ignore here in the interest of brevity.

<sup>3</sup> But note that nothing precludes some languages from simultaneously exhibiting both unoccupied specifiers and headless XP movement and/or ellipsis; Japanese, as described in [Funakoshi \(2012, 2014\)](#), is arguably a good example of this type of language. What I am claiming here is that this combination of properties should be treated as a coincidence, rather than as a syntactically relevant fact.

## 2 Unoccupied specifiers are not a sufficient condition for headless XP movement/ellipsis

### 2.1 Celtic languages lack headless XP movement despite having unoccupied specifiers

Funakoshi (2012:540; 2014:268) follows McCloskey (1996) in assuming that the characteristic VSO order of Irish arises is a consequence of finite verbs moving to T<sup>0</sup> while subjects remain in a lower-than-T<sup>0</sup> position (for the purposes of this section, the exact position of the subject is not relevant).<sup>4</sup> Importantly, this analysis entails that SpecTP remains unoccupied. Funakoshi takes advantage of this property of Irish to argue that head movement to T<sup>0</sup> is a case of HMS, with the associated consequences. Specifically, he points out that this analysis correctly predicts the availability of headless VP ellipsis (McCloskey 1991, Goldberg 2005). Here, and in the rest of the paper, elided constituents are rendered in light grey font.

- (3) Q: Ar chuir<sub>i</sub> [<sub>VP</sub> t<sub>i</sub> tú isteach air]?                      A: Chuir<sub>i</sub> [<sub>VP</sub> t<sub>i</sub> mé isteach air ].  
 Q put                      you in                      on.it                      put                      I in                      on.it  
 “Did you apply for it”                      “Yes, I did”

Given Funakoshi’s assumption that XP ellipsis is contingent on XP movement, Irish is predicted to also allow headless VP movement. In reality, this prediction fails, as shown in (4a) with the clefting construction (McCloskey 2010:164). Note that clefting of a headed predicate is possible (4b), making it difficult to ascribe the ungrammaticality of (4a) to a general ban on predicate movement. This suggests that the availability of unoccupied specifier positions is not a sufficient condition for HMS and, by extension, headless XP movement.<sup>5</sup>

- (4) a. \* [t<sub>i</sub> Eoghan an duais do Chiarán]<sub>k</sub> a bhéarfaidh<sub>i</sub> t<sub>k</sub>.  
 Eoghan the prize to Chiarán C give.FUT  
 “It is Eoghan the prize to Ciarán that will give”  
 b. [Ag magadh orm a bheadh]<sub>k</sub> siad t<sub>k</sub>.  
 mock.PROG on.me C be.COND they.  
 “It is mocking me that they’d be”

McCloskey (2010:17off) argues that there is one environment where headless VP fronting seems to be licit, *viz.*, *as*-parenthetical clauses (5); after Potts (2002), he assumes that these clauses

<sup>4</sup> Carnie (1996) argues, *contra* McCloskey 1996, that Irish verbs rise to C<sup>0</sup>, with subjects occupying SpecTP or a similarly high position in the inflectional area. Readers who prefer Carnie’s analysis can easily reformulate the argumentation in this section in his terms.

<sup>5</sup>Thoms (2014) provides a similar paradigm for Scottish Gaelic, which has the same syntax as Irish (Adger 1994, 2000): clefting of a headless predicate is ungrammatical (ia), but clefting of a headed predicate is not (ib).

- (i) a. \* ‘S ann [t<sub>i</sub> leabharaichean bho Fheargais]<sub>k</sub> a fhuair<sub>i</sub> Seònaig.  
 COP.PRES EXPL books from Fergus.DAT C get.PST.IND Seònaig  
 “It is books from Fergus that Seònaig got”  
 b. ‘S ann [a’ faighinn leabharaichean bho Fheargais] a bha Seònaig.  
 COP.PRES EXPL IMP get.VN books from Fergus.DAT C be.PST Seònaig  
 “It is getting books from Fergus that Seònaig was doing”

require operator movement of an elided VP to the highest SpecCP within the parenthetical (in the particular case of Irish, the fact that movement is taking place can be diagnosed by the fact that the intermediate complementizer is *aL*, i.e., the one associated with A-bar movement from within its clause).

- (5) Chuaidh se 'un an aonaigh [mar [<sub>Pred</sub>\_\_\_]<sub>k</sub> a dubhairt sé a rachadh *t<sub>k</sub>*].  
 go.PST he to the fair as C said he C go.COND.  
 “He went to the fair, as he had said he would”

I submit that (5) does not actually counterexemplify the claim that Irish lacks headless VP movement. For one, as both Potts and McCloskey, this type of *as*-parentheticals are grammatical only if the relevant VP is phonetically null. This is significant: a quick crosslinguistic check reveals that, indeed, the crucial factor in licensing *as*-parentheticals is the elidability of VP, rather than its movability. Consider the fact that English adverbial clauses allow VP ellipsis but not VP movement (Aelbrecht and Haegeman 2012:600–602). Given that *as*-clauses are effectively a type of adverbial clause (Potts 2002), the fact that English *as*-clauses allow VP gaps supports the idea that *as*-clause formation is dependent on the possibility of VP ellipsis, rather than VP movement. Conversely, Dutch VPs directly embedded under a *have* or *be* auxiliary can be moved (Broekhuis 2013:585ff) but not elided (Aelbrecht 2010:53); as expected, Dutch *as*-clauses may not feature a VP gap directly embedded under a *have* or *be* auxiliary (Lobke Aelbrecht, p.c.).

- (6) \* Guido heeft gebeld, [zoals [<sub>Pred</sub>\_\_\_]<sub>k</sub> Willem heeft *t<sub>k</sub>*].  
 Guido has called just.as Willem has

In short, the only conclusion that one can draw from (5) is that this example is grammatical because Irish allows headless VP ellipsis; it doesn't follow from this that the moved constituent needs to be the elided VP. More generally, there is no evidence that Irish has headless VP movement despite having an unoccupied specifier position. As mentioned above, the implication of this result is that the availability of unoccupied specifier positions is not a sufficient condition for headless XP movement.

## 2.2 Tongan lacks headless XP ellipsis despite having unoccupied specifiers

As evident from the discussion above, Funakoshi predicts that all Irish-type languages (i.e., languages whose default VSO order is derived via head movement of the verb across the subject), license HMS and, by extension, headless phrase movement and ellipsis. The previous section has shown that this prediction fails in the Celtic family, where we find headless predicate ellipsis without the corresponding headless predicate movement. This section extends the argument by examining Tongan (Polynesian), which lacks headless predicate ellipsis despite having a clause structure analogous to that of Irish and Scottish Gaelic. Example (7a) illustrates this order. Note that weak subject pronouns break this order by intervening between the tense marker and the verb (7b); after Otsuka (2001, 2005), I assume that this order involves encliticization of the pronoun to the tense marker.

- (7) a. Na'e ma'u 'e Sione 'a e ika.                      b. Na'a ne tangi.  
       PST get    ERG Sione ABS the fish                      PST 3SG cry  
       “Sione got the fish” [Otsuka 2005:69]                      “She cried” [Otsuka 2005:71]

Otsuka (2005) provides various arguments to the effect that the VSO order of Tongan is indeed derived by head movement of the verb across the subject, rather than by remnant VP movement (as has been argued for other typologically close languages, see Massam 2001 on Niuean). The one I reproduce here concerns the derivation of the alternative VOS order. Massam argues that the VSO/VOS alternation in Niuean correlates with whether the object moves out of VP prior to VP movement: if it does, remnant VP movement creates a VSO order (8); but if it doesn't, non-remnant VP movement creates a VOS order (9). In support of this analysis, Massam 2001 points out that the kinds of objects that one finds in Niuean VOS sentences are those that, crosslinguistically, tend to not move out of VP —i.e., non-specific indefinites without a case marker. Note how the object in the VSO example (8) is accompanied by both a definite determiner and an absolutive case marker; in contrast, in the VOS example (9), the object is a bare NP.

- (8) *Niuean VSO order* (Massam 2001:157)  
 a. Takafaga tūmau nī e ia e tau ika.  
    hunt    always EMPH ERG he ABS PL fish  
    “He is always fishing”  
 b. [<sub>TP</sub> [<sub>VP</sub> takafaga *t<sub>i</sub>*]<sub>k</sub> tūmau nī e ia [e tau ika]<sub>i</sub> *t<sub>k</sub>*].
- (9) *Niuean VOS order* (Massam 2001:157)  
 a. Takafaga ika tūmau nī a ia.  
    hunt    fish always EMPH ABS he  
    “He is always fishing”  
 b. [<sub>TP</sub> [<sub>VP</sub> takafaga ika]<sub>k</sub> tūmau nī e ia *t<sub>k</sub>*].

In contrast, Tongan VOS orders do not require the object to be a bare NP (10). Rather, as Otsuka (2002, 2005) discusses, the VSO/VOS is determined by Information Structure factors: the immediately postverbal position is a focus position, and so the VOS order is a case of scrambling triggered by the need to focalize the object. Otsuka takes this generalization as an indication that Tongan is an Irish-type language, rather than a Niuean-type one.

- (10) *Tongan* (Otsuka 2005:73)  
 a. Na'e kai 'a e ika 'e Sione.  
    PST eat ABS the fish ERG Sione  
    “Sione ate the fish”  
 b. Na'e fili 'a Pila 'e Sione.  
    PST choose ABS Pila ERG Sione  
    “Sione chose Pila”

The following representation illustrates a plausible derivation for (7a): with the lexical undergoing head movement out of *v*P. The identity of the landing site of this movement is not important, and I will non-committally refer to it as F°. As the reader can confirm, this derivation is analogous to the one that McCloskey (1996, 2010) proposes for Irish. Note that, because SpecFP remains unoccupied, *v*°-to-F° movement can be analyzed as a case of HMS.

- (11) Na'e [<sub>FP</sub> ma'u<sub>i</sub> [<sub>VP</sub> 'e Sione *t<sub>i</sub>* a' e ika]].



Given this background, one would expect Tongan to exhibit a type of headless predicate ellipsis analogous to that of Irish and Scottish Gaelic. The test examples need to be constructed carefully, though, to account for the fact that Tongan independently allows argument drop of singular 3<sup>rd</sup> person pronouns. This possibility allows an analysis of (12B) as a case of argument drop, rather than headless predicate ellipsis.

- (12) A: Na'e kai 'e Sione 'a e ika?                      B: ('io), na'e kai.  
           PST eat ERG Sione ABS the fish                      yes PST eat  
           “Did Sione eat the fish?”                              “Yes, she did”

We can circumvent this confound by constructing discourses that do not use this class of pronouns, as in (13) below; here the absence of an overt plural 2<sup>nd</sup> person object pronoun in (13B) must be analyzed as a case of headless predicate ellipsis, rather than argument drop. Since this example is ungrammatical, we can conclude that Tongan doesn't allow headless predicate ellipsis despite having a syntax that licenses HMS out of the to-be-elided predicate.

- (13) A: Na'a ke fili 'a kimautolu?  
           PST 2SG choose ABS 1PL.EXCL  
           “Did you choose us?”  
       B: \* ('io), na'a ku fili<sub>i</sub> [t<sub>i</sub> 'a kimoutolu].  
           yes PST 1SG chose      ABS 2PL.EXCL  
           “Yes, I did”

In conclusion, the unavailability of headless predicate ellipsis in Tongan needs to be blocked by an independent constraint, however it is to be formulated. This is, admittedly, not an exceptional situation: in principle, one would need a similar constraint to account for the fact that German and Dutch do not allow ellipsis of the complements of *have* and *be* auxiliaries, even though the underlying syntax is very similar to that of English. However, this amounts to weakening the connection between the availability of unoccupied specifiers and the possibility of headless XP ellipsis —i.e., the availability of an unoccupied specifier position (and the consequent possibility of HMS) is not a sufficient condition for headless XP ellipsis.

### 3 Unoccupied specifiers are not a necessary condition for headless XP movement/ellipsis

The data discussed in the previous section could conceivably be folded under a somewhat weaker version of Funakoshi's analysis, where headless XP movement and ellipsis are possible if (i) there is an unoccupied specifier position that licenses HMS, and (ii) some other unspecified condition(s) are met. If so, then one could potentially account for Celtic languages and Tongan by arguing that such putative condition(s) are not met. The data I discuss in this section show that even this weaker version is untenable. I show that not only is the availability of unoccupied specifier positions not a sufficient condition for headless XP movement and ellipsis, it is not a necessary condition either. As a consequence, the availability of unoccupied specifier positions and the possibility of headless XP movement and ellipsis must be dissociated from each other entirely.

### 3.1 British English has headless XP ellipsis despite lacking unoccupied specifier positions

British English differs from American English in that possessive *have* raises to T° (and eventually to C°, in questions) in the former, but not in the latter (Pollock 1989, among others). This property allows for headless VP ellipsis in the relevant dialects, as illustrated below (for conciseness, I do not indicate subject raising to SpecTP in these representations; also, “VP” should be understood as a shorthand for whatever category actually undergoes deletion).

- (14) A: I have some beer in the fridge.  
 B: [<sub>TP</sub> I have<sub>i</sub> [<sub>VP</sub> t<sub>i</sub> some beer in the fridge]] too. [✓ BrEn / \* AmEn]
- (15) A: I have some beer in the fridge.  
 B: [<sub>CP</sub> Have<sub>i</sub> [<sub>TP</sub> you t<sub>i</sub> [<sub>VP</sub> t<sub>i</sub> some beer in the fridge]]]? [✓ BrEn / \* AmEn]

Funakoshi (2014:219–220) considers similar data with existential/locative *be* (16), which is also assumed to raise to T° (Pollock 1989 again). Aware of the difficulty that such examples pose for his analysis, he proposes an alternative syntax where the arguments are merged in a small clause headed by a phonetically null head PRED and *be* is base-generated as the spell-out of the  $\phi$  and Tense features of T° (17).

- (16) John was not at home yesterday, but Bill was<sub>i</sub> [t<sub>i</sub> at home yesterday].
- (17) John was not at home yesterday, but Bill was [PRED at home yesterday.]

An attempt to extend this line of analysis to possessive *have* (i.e., by postulating a small clause headed by a functional head HAVE) would run into various difficulties. To begin with, one would have to stipulate that British HAVE is phonetically null, but American HAVE is not (properly, while British English would have a Spell Out rule along the lines of [HAVE → ∅], the corresponding one in American English would be [HAVE → *have*]). More problematically, while American HAVE would trigger the usual *do*-support on T°, British HAVE would be exceptional in triggering the otherwise unattested *have*-support. I do not know of any evidence in favor of either of these assumptions.

I conclude, then, that (14) and (15) constitute genuine cases of headless VP ellipsis. Under Funakoshi’s assumptions, this paradigm entails that British dialects allow HMS with possessive *have*, but American dialects do not. In turn, this asymmetry should manifest itself as some evidence that British dialects allow multiple specifier constructions or unoccupied single specifiers. However, no such evidence seems to exist; in fact, both British and American dialects fail to exhibit any of the signs associated with either multiple specifiers or unoccupied single specifier positions. Neither class of dialects allows true multiple subjects, on the assumption that (18) and similar examples are best analyzed as hanging topic or left dislocation constructions (Grohmann 2003:ch. 4 and references). Similarly, neither class of dialects allows unraised subjects, as diagnosed through the impossibility of post-auxiliary subjects in declarative clauses (19a) and the impossibility of overt agentive subjects in fronted transitive *v*Ps (19b).<sup>6</sup> This much suggests that,

<sup>6</sup> Compare (19b) to German, which allows overt agentive subjects to remain in SpecvP and be pied-piped under predicate fronting (Wurmbrand 2006).



contrary to Funakoshi's proposal, the availability of unoccupied specifier positions is not a necessary condition for headless XP ellipsis.

(18) Jack, he ate an apple.

(19) a. \* [<sub>TP</sub> Has never [<sub>VP</sub> a dog bitten a postman]].

b. \* They asked me if a dog had ever bitten a postman here, and I told them that, [a dog {bite/bitten} a postman] has never.

Additionally, note that (15B) is effectively underivable under Funakoshi's assumptions, even if British English T<sup>o</sup> (counterfactually) projected multiple specifiers. In order to license headless VP ellipsis, V<sup>o</sup>-to-T<sup>o</sup> movement must be a case of HMS; however, as discussed in section 1 above, HMS prevents [<sub>T'</sub> V<sup>o</sup> T<sup>o</sup>] from undergoing further head movement to C<sup>o</sup>, whether by adjunction or substitution. Within this system, V<sup>o</sup>-to-T<sup>o</sup>-to-C<sup>o</sup> movement and headless VP ellipsis are possible independently of each other, but not in combination.

### 3.2 German has headless XP movement despite lacking unoccupied specifier positions

Funakoshi (2012, 2014) cites German as an example of a language that doesn't allow headless XP movement, providing the following examples as evidence.

(20) a. \* [Ihr ein Buch  $t_i$ ]<sub>k</sub> gab<sub>i</sub> Hans  $t_k$ .

her a book gave Hans

[Takano 2000:145; ex. (6a) in Funakoshi 2012]

b. \* [Seinen Bruder an  $t_i$ ]<sub>k</sub> rief<sub>i</sub> der Hans gestern  $t_k$ .

his brother up called the Hans yesterday

[Wurmbrand 2004:7; ex. (7d) in Funakoshi 2012]

While these examples are indeed ungrammatical, the claim that German categorically bans headless predicate topicalization is simply factually incorrect. As the (non-exhaustive) selection below illustrates, grammatical examples of this kind have been noted and discussed in the literature for decades. Interested readers are referred especially to S. Müller 2003, 2005, which contains hundreds of naturally attested examples, and to Bildhauer and Cook 2010 and S. Müller et al. 2012, which offer an analysis of the discourse configurations that license headless predicate fronting. Note that a number of these examples (especially many of those collected in S. Müller 2003, 2005) have appeared in heavily edited media like newspapers, books, and corporate brochures. This makes it difficult to dismiss them as speech errors.<sup>7</sup>

(i) [Ein junger Hund einen Briefträger gebissen]<sub>k</sub> hat hier schon oft  $t_k$ .

a young dog a postman bitten has here already often

"It has often happened here that a young dog has bitten a postman"

<sup>7</sup> Headless predicate movement is not restricted to topicalization. Consider the Mòcheno dialect, which exhibits a default VO order with a focus-triggered OV variant. Cognola (2013) argues that (i), where both the theme and the goal appear in preverbal position, involves headless VP movement around *v*P.

(i) Der Mario hòt [ $t_i$  a puach en de mama]<sub>k</sub> kaft<sub>i</sub>  $t_k$ .

the Mario has a book to the mum bought

- (21) a. [Die Kinder nach Stuttgart  $t_i$ ] $_k$  sollst du  $t_k$  bringen $_k$ .  
the children to Stuttgart should you bring  
[Engel 1970:88]
- b. [Kindern Heroin  $t_i$ ] $_k$  sollte man nicht  $t_k$  geben $_i$ .  
children heroin should one not give  
[Fanselow 1993:66]
- c. [Die Zeitung am Freitag  $t_i$ ] $_k$  hast du nicht  $t_k$  gelesen $_i$ .  
the newspaper on Friday have you not read.  
[Lernerz 1995:1267]
- d. [Die Borussia in Führung  $t_i$ ] $_k$  schoß $_i$  dann Effenberg  $t_k$ .  
the Borussia in.the lead kicked then Effenberg  
[G. Müller 1998:226, taken from a *Süddeutsche Rundfunk* football broadcast]
- e. [Alle Träume gleichzeitig  $t_i$ ] $_k$  kann man selten  $t_k$  verwirklichen $_i$ .  
all dreams simultaneously can one seldom realize  
[Fanselow 2002a, taken from a brochure of the Berliner Sparkasse savings bank]
- f. [Der Universität zum Jubiläum  $t_i$ ] $_k$  gratulierte $_i$  auch Bundesminister Dorothee  
the university for jubilee congratulated also federal.minister Dorothee  
Wilms  $t_k$ .  
Wilms  
[S. Müller 2005, taken from a 1988 issue of the *Kölner Universitätsjournal*]
- g. [Dem Saft eine kräftigere Farbe  $t_i$ ] $_k$  geben $_i$  Blutorangen  $t_k$ .  
the juice a stronger color give blood.oranges  
[S. Müller et al. 2012]

Wurmbrand (2004:§4) briefly discusses two ways in which such examples can be analyzed without resort to headless predicate movement.<sup>8</sup> The first one involves treating them as genuine V2 violations, on the grounds that such violations are attested elsewhere, citing specifically Buring and Hartmann's (2001) proposal that the focus particles *nur* 'only' and *sogar* 'even' do not form a constituent with the focus in SpecCP (rather, *nur* and *sogar* are adjoined to CP). This strategy has limited generalizability, given that the large majority of headless predicate fronting examples do not involve focus particles.

- (22) a. [Nur] [vom GRAfen] $_F$  habe ich jeden Sohn bewundert.  
only of.the count have I every son admired
- b. [Sogar] [gegen die ReGIErung] $_F$  hat sie eine Proklamation unterzeichnet.  
even against the government has she a proclamation signed

A second type of V2 violation (not mentioned by Wurmbrand) is Fanselow's (2002b) observation that a minority of speakers find the examples in (23) "only mildly ungrammatical" (in a footnote, Fanselow specifies that only 6 speakers out of 20 he surveyed accepted the examples). Again, these examples arise in a very specific configuration —namely, in the presence of the operator *mehr als* 'more than', which verbs necessarily appear in the scope of. As above, this strategy have very limited generalizability, as headless predicate fronting examples lack comparable operators.

<sup>8</sup> Wurmbrand eventually concedes that this class of examples can be analyzed as fronting of a headless predicate if certain (unspecified) prosodic conditions are met. This seems to be in line with the hypothesis in Bildhauer and Cook 2010 and S. Müller et al. 2012 that restrictions on the range of elements that can appear in headless fronted predicates can be traced to non-syntactic factors.

- (23) a. % [Hans] [mehr als] verdreifachte seinen Profit letztes Jahr.  
           Hans more than tripled his profit last year
- b. % [Seinen Profit] [mehr als] verdreifachte Hans letztes Jahr.  
           his profit more than tripled Hans last year

Additionally, Fanselow (1993:67) already provides a general argument against analyzing the examples in (21) as V2 violations. Specifically, he points out that, on the assumption that *nur* ‘only’ may only take one constituent as its focus associate, an analysis of (24a) where *dem Frank* and *den Brief von Anette* move to the preverbal position separately from each other would predict focus association with either one or the other, but not both. In reality, however, *nur* associates with the entire string *dem Frank den Brief von Anette* (as indicated by the string that appears in the *nicht auch noch* continuation), which Fanselow takes as an indication that this string is a single (headless) constituent. A similar reasoning holds for (24b): the scope of *nicht* ‘not’ comprises the entire string *am Sonntag einen Brief*, which is not what one would expect in a V2-violating analysis.

- (24) a. [nur dem Frank den Brief von Anette  $t_i$ ] $_k$  hätte er  $t_k$  geben sollen, nicht auch  
           only the Frank the letter from Anette had he given should not also  
           noch dem Markus dem Brief von Katharina.  
           yet the Markus the letter from Katharina
- b. [nicht am Sonntag einen Brief  $t_i$ ] $_k$  hätte er  $t_k$  schreiben sollen, sondern am  
           not on Sunday a letter had he write should but on  
           Samstag seinen Vortrag.  
           Saturday his lecture

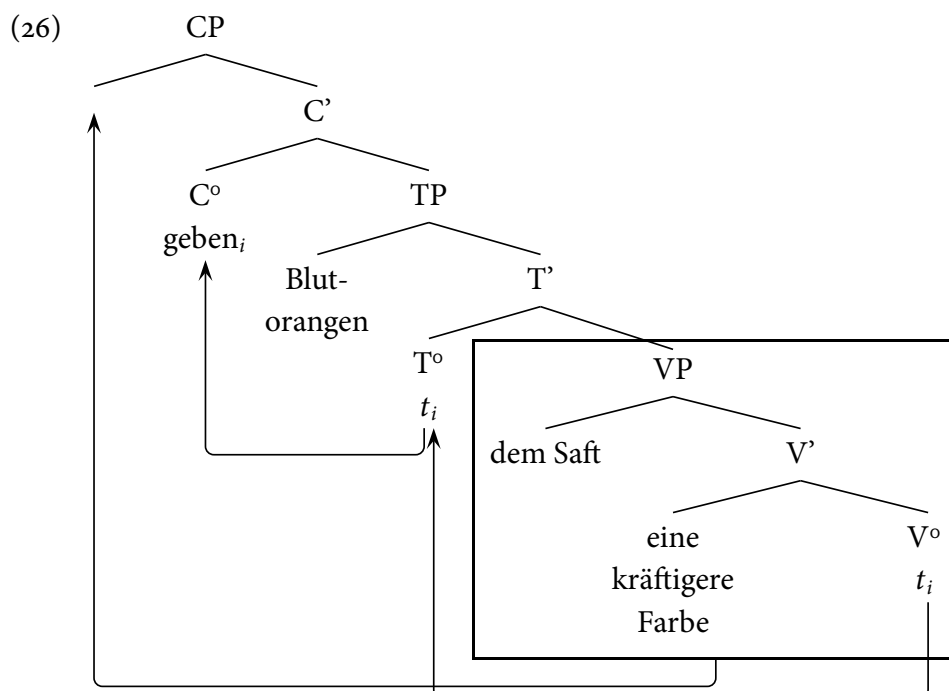
Wurmbrand’s second alternative analysis is that “the preverbal constituents form a small-clause-like constituent excluding the verb”. Although there are cases for which this alternative is plausible (e.g., (21d) above), a complete generalization is not possible. A small clause, as usually understood (Stowell 1981, 1983, *et seq*), is a non-verbal predication relation between two constituents. However, the survey in S. Müller 2003, 2005 contains several examples where no plausible predication relation holds. Arguably, the strongest such counterexamples are the following attested grammatical counterparts of (20b) above, where the fronted constituent contains an object and a verbal particle. Given that *an*, *zurecht*, and other similar particles are caboodle items in the sense of Harley to appear (i.e., they have no inherent meaning, but rather combine with certain verbal roots to produce a meaning), there is no meaningful way in which they can enter a predication relation with the object.

- (25) S. Müller 2005:14

- a. [Den Atem an  $t_i$ ] $_k$  hielt $_i$  die ganze Judenheit des römischen Reichs  
           the breath up held the whole jewish.community of.the Roman Empire  
           und weit hinaus über die Grenzen  $t_k$ .  
           and far beyond over the borders  
           [from Lion Feuchtwanger’s novel *Jud Süß*]

- b. [Gut zurecht  $t_i$ ]<sub>k</sub> kommt<sub>i</sub> derjenige, der das Leben mit all seinen  
 well to.right comes anyone who the life with all its  
 Überraschungen annimmt  $t_k$ .  
 surprises accepts  
 “He who accepts life with all of its surprises copes well” [from a brochure of the Techniker Krankenkasse health insurance company]

I conclude, then, that German exhibits genuine headless predicate movement. The extent to which the examples quoted above can be folded under Funakoshi’s analysis depends directly on the availability of multiple specifier positions that license HMS. For space reasons, I concentrate on the examples like (21) above, where headless predicate fronting strands a finite verb. I assume that the following is a reasonably accurate syntax of (21g) and similar examples (for conciseness, I do not represent the predicate-internal trace of the subject; “VP” stands for whatever category one wishes to assume undergoes fronting).



This tree already reveals a feature of (21g) that makes them incompatible with Funakoshi’s system, *viz.*, the fact that it combines T°-to-C° movement with headless VP movement. On the one hand, headless VP movement requires V°-to-T° movement to be a case of HMS; however, as discussed in §1, HMS prevents the resulting constituent [<sub>T'</sub> V° T°] from undergoing further head movement to C°, whether by HMA or HMS (this is the same problem I raised in §3.1 in relation to (15)): within Funakoshi’s system, T°-to-C° movement and headless VP movement may not happen simultaneously.

Beyond this particular problem, treating V°-to-T° movement as a case of HMS requires German T° to either project multiple specifiers or have its unique specifier position unoccupied. There is evidence that neither of these conditions is satisfied. First, Funakoshi (2012:551) follows Ura (1994) in assuming that the availability of a multiple-subject construction is a reliable diagnosis of the availability of multiple SpecTP positions. Example (27) illustrates this type of con-

struction for Japanese. Notably, as [Funakoshi \(2014:171ff\)](#) already notes, German lacks multiple subjects, on the hypothesis that (28) and similar examples are best analyzed as left dislocations ([Grohmann 2003:ch. 4](#) and references).

- (27) Zoo-ga hana-ga nagai.  
elephant-NOM nose-NOM long  
“Elephants’ noses are long” [[Ura 1994:134](#)]
- (28) Der nächste Präsident, der is ja wiedergeboren.  
the next president he is PRT born.again  
[[Grohmann 2003:164](#)]

Similarly, [Funakoshi \(2014:173ff\)](#) already points out that German objects scrambled across the subject exhibit A-bar properties, i.e., they cannot bind anaphors contained in the subject (29). Compare (29) to its Japanese counterpart (30), where object scrambling feeds anaphoric binding. [Grewendorf and Sabel \(1999\)](#) argue that, on the assumption that SpecTP is an A position, the ungrammaticality of (29b) suggests that SpecTP is not a possible landing site for scrambled objects in German (rather, scrambled objects adjoin to TP). From this, they conclude (as does [Funakoshi](#)) that German T° does not project multiple specifiers.

- (29) [Grewendorf and Sabel 1999:9](#)
- a. \* weil [die Lehrer von sich<sub>i</sub>] zweifellos [den Studenten]<sub>i</sub> in guter  
because the teachers of self undoubtedly the students in good  
Erinnerung behalten haben.  
memory kept have
- b. \* weil [den Studenten]<sub>i</sub> [die Lehrer von sich<sub>i</sub>] zweifellos in guter  
because the students the teachers of self undoubtedly in good  
Erinnerung behalten haben.  
memory kept have
- (30) [Saito 1992:74](#)
- a. \*? [otagai<sub>i</sub>-no sensei-ga] [karera-o]<sub>i</sub> hihansita (koto).  
each.other-GEN teacher-NOM they-ACC criticized fact
- b. ? [karera-o]<sub>i</sub> [otagai<sub>i</sub>-no sensei-ga] hihansita (koto).  
they-ACC each.other-GEN teacher-NOM criticized fact

As a final alternative, one could capitalize on the fact that German subjects need not raise out of their predicate-internal position ([Wurmbbrand 2006](#)), and assume that subjects and finite verbs compete for the unique SpecTP position: if the verb uses up this position to undergo HMS (and therefore license headless predicate movement), then the subject is forced to remain in its predicate internal position. This line of attack, however, fails to predict that, in the relevant examples, the subject may still precede the kind of adverbs (e.g., *oft* ‘often’) that are typically used to diagnose subject raising to SpecTP ([Gisbert Fanselow, p.c.](#)).

- (31) [Dem Saft eine kräftigere Farbe  $t_i$ ]<sub>k</sub> geben Blutorangen oft.  
the juice a stronger color give blood.oranges often

I conclude, then, that German allows headless predicate fronting despite not exhibiting unoccupied specifier positions. As is the case with the British English examples discussed in the previous section, this result is a direct counterexample to [Funakoshi’s](#) proposal.

## 4 Conclusions

We have seen that there is no correlation between the distribution of unoccupied specifier positions and the distribution of headless XP movement and ellipsis, and so (contrary to Funakoshi's claim) the latter cannot be predicted from the former. This result leaves the HMA vs. HMS distinction as a conjecture without empirical support. Properly, the distribution of headless XP movement and ellipsis doesn't support the HMA vs. HMS distinction, but given that the distribution of headless XP movement and ellipsis is the only existing argument in favor of an HMA vs. HMS distinction, this is effectively the same as saying that empirical support is, so far, lacking.

Importantly, nothing in this article precludes the possibility that independent evidence for the HMA vs. HMS distinction may eventually be identified elsewhere. Suppose, however, that future work consistently fails to find any such evidence. If so, then the leading hypothesis would be that the adjunction vs. substitution distinction doesn't hold for head movement, and the relevant research question would be whether it holds at all in the general case of movement and merge—i.e., whether the specifier vs. adjunct distinction is a real one or simply an artifact related to the way the theory of phrase structure and movement has evolved. Notably, the literature already contains arguments in favor of the latter hypothesis (Collins 2002, Epstein et al. 2012, Chomsky 2013, Oseki 2014). Interestingly, this kind of theory, where there is no adjunction vs. substitution distinction, has the same general effect that Funakoshi seeks to achieve (i.e., to eliminate certain asymmetries between head and phrase movement), but it achieves in the completely opposite way—namely, by downsizing phrase movement, rather than by augmenting head movement.

## References

- Adger, David. 1994. Functional heads and interpretation. PhD diss, University of Edinburgh.
- Adger, David. 2000. Feature checking under adjacency and VSO clause structure. In *The nature and function of syntactic categories*, eds. Robert Borsley and Jaklin Kornfilt, 79–100. San Diego, CA: Academic Press.
- Aelbrecht, Lobke. 2010. *The syntactic licensing of ellipsis*. Amsterdam: John Benjamins.
- Aelbrecht, Lobke, and Liliane Haegeman. 2012. VP ellipsis is not licensed by VP topicalization. *Linguistic Inquiry* 43 (4): 591–614.
- Bildhauer, Felix, and Philippa Cook. 2010. German Multiple Fronting and Expected Topichood. In *Proceedings of the HPSG 2010 Conference*, ed. Stefan Müller, 68–79. Stanford: CSLI Publications.
- Broekhuis, Hans. 2013. *Syntax of Dutch*. Amsterdam: Amsterdam University Press.
- Büring, Daniel, and Katharina Hartmann. 2001. The syntax and semantics of focus-sensitive particles in German. *Natural Language and Linguistic Theory* 19 (2): 229–281.
- Carnie, Andrew. 1996. Non-verbal predication and head movement. PhD diss, MIT.
- Chomsky, Noam. 2013. Problems of projection. *Lingua* 130 (1): 33–49.
- Chomsky, Noam, and Howard Lasnik. 1995. The theory of principles and parameters. In *The minimalist program*, 13–128. Cambridge, MA: MIT Press.
- Cognola, Federica. 2013. *Syntactic variation and verb second: a German dialect in Northern Italy*. Amsterdam: John Benjamins.
- Collins, Christopher. 2002. Eliminating labels. In *Derivation and explanation in the minimalist program*, eds. Samuel Epstein and Daniel Seely, 42–64. Oxford: Blackwell.
- Engel, Ulrich. 1970. *Regeln zur Wortstellung*. Mannheim: Institut für deutsche Sprache.



- Epstein, Samuel, Hisatsugu Kitahara, and Daniel Seely. 2012. Structure building that can't be. In *Ways of structure building*, eds. Myriam Uribe-Etxebarria and Vidal Valmala, 253–270. Oxford: Oxford University Press.
- Fanselow, Gisbert. 1993. Die Rückkehr der Basisgenerierer. *Groninger Arbeiten zur Germanistischen Linguistik* 36: 1–74.
- Fanselow, Gisbert. 2002a. Against remnant VP movement. In *Dimensions of movement: from features to remnants*, eds. Artemis Alexiadou, Elena Anagnostopoulou, and Sjeff Barbiers. Amsterdam: John Benjamins.
- Fanselow, Gisbert. 2002b. Münchhausen-style head movement and the analysis of verb second. Ms., Universität Potsdam.
- Funakoshi, Kenshi. 2012. On headless XP movement/ellipsis. *Linguistic Inquiry* 43 (4): 519–562.
- Funakoshi, Kenshi. 2014. Syntactic head movement and its consequences. PhD diss, University of Maryland, College Park.
- Goldberg, Lotus. 2005. Verb-stranding VP ellipsis: a cross-linguistic study. PhD diss, McGill University.
- Grewendorf, Gunther, and Joachim Sabel. 1999. Scrambling in German and Japanese: adjunction vs. multiple specifiers. *Natural Language and Linguistic Theory* 17: 1–65.
- Grohmann, Kleanthes. 2003. *Prolific domains: on the anti-locality of movement dependencies*. Amsterdam: John Benjamins.
- Harley, Heidi. to appear. On the identity of roots. *Theoretical Linguistics*.
- Johnson, Kyle. 2001. What VP ellipsis can do, and what it can't, but not why. In *The Handbook of Contemporary Syntactic Theory*, eds. Mark Baltin and Chris Collins, 439–479. Oxford: Blackwell.
- Lenerz, Jürgen. 1995. Klammerkonstruktionen. In *Syntax: ein internationales Handbuch zeitgenössischer Forschung*, eds. Joachim Jacobs, Arnim von Stechow, Wolfgang Sternefeld, and Theo Vennemann, 1266–1274. Berlin: Walter de Gruyter.
- Massam, Diane. 2001. Pseudo noun incorporation in Niuean. *Natural Language and Linguistic Theory* 19: 153–197.
- McCloskey, James. 1991. Clause structure, ellipsis, and proper government in Irish. *Lingua* 85: 259–302.
- McCloskey, James. 1996. On the scope of verb movement in Irish. *Natural Language and Linguistic Theory* 14: 47–104.
- McCloskey, James. 2010. The shape of Irish clauses. In *Formal approaches to celtic linguistics*, ed. Andrew Carnie, 143–178. Cambridge: Cambridge Scholars Publishing.
- Müller, Gereon. 1998. *Incomplete category fronting*. Dordrecht: Kluwer.
- Müller, Stefan. 2003. Mehrfache Vorfeldbesetzung. *Deutsche Sprache* 31 (1): 29–62.
- Müller, Stefan. 2005. Zur Analyse der scheinbar mehrfachen Vorfeldbesetzung. *Linguistische Berichte* 203: 29–62.
- Müller, Stefan, Felix Bildhauer, and Philippa Cook. 2012. Beschränkungen für die scheinbar mehrfache Vorfeldbesetzung im Deutschen. In *Satzeröffnung: Formen, Funktionen, Strategien*, ed. Colette Cortés, 113–128. Tübingen: Stauffenberg Verlag.
- Oseki, Yohei. 2014. Eliminating Pair-Merge. In *Proceedings of WCCFL* 32.
- Otsuka, Yuko. 2001. Split ergativity and the nature of pronouns in Tongan. In *MIT Working Papers in Linguistics 44: Proceedings of AFLA 8*, eds. Andrea Rackowski and Norvin Richards, 197–210.
- Otsuka, Yuko. 2002. VOS in Tongan: passive or scrambling. In *Proceedings of AFLA 9 (Cornell Working Papers in Linguistics 19)*, 122–136.
- Otsuka, Yuko. 2005. Two derivations of VSO: a comparative study of Tongan and Niuean. In *Verb first*, eds. Andrew Carnie, Heidi Harley, and Sheila Ann Dooley, 65–90. Amsterdam: John Benjamins.
- Pollock, Jean-Yves. 1989. Verb movement, Universal Grammar, and the structure of IP. *Linguistic Inquiry* 20 (3): 365–424.

- Potts, Christopher. 2002. The syntax and semantics of parenthetical *as*-clauses. *Natural Language and Linguistic Theory* 20: 623–689.
- Saito, Mamoru. 1992. Long distance scrambling in Japanese. *Journal of East Asian Linguistics* 1: 69–118.
- Stowell, Timothy. 1981. Origins of phrase structure. PhD diss, MIT.
- Stowell, Timothy. 1983. Subjects across categories. *The Linguistic Review* 2 (3): 285–312.
- Takano, Yuji. 2000. Illicit remnant movement: an argument for feature-driven movement. *Linguistic Inquiry* 31: 141–156.
- Thoms, Gary. 2014. Another argument for v1. Ms., University of Edinburgh.
- Ura, Hiroyuki. 1994. *Varieties of raising and the feature-based bare phrase structure theory* (MIT Occasional Paper in Linguistics 7). Cambridge, Massachusetts: MITWPL.
- Wurmbrand, Susanne. 2004. No TP Fronting meets Nearly Headless Nick. Ms., University of Connecticut, Storrs.
- Wurmbrand, Susanne. 2006. Licensing Case. *Journal of Germanic Linguistics* 18 (3): 175–236.