Á. Gallego & D. Ott (eds.). 2015. 50 Years Later: Reflections on Chomsky's Aspects. Cambridge, MA: MITWPL. Available for purchase at http://mitwpl.mit.edu © The Author

RAISING THE SUBJECT OF THE 'OBJECT-OF' RELATION

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In section 2.2 of chapter 2 of Aspects, Chomsky (1965) stresses the inherently relational nature of grammatical functions, and proceeds by 'defining "Subject-of," for English, as the relation holding between the NP of a sentence of the form NP Aux VP and the whole sentence, "Object-of" as the relation between the NP of a VP of the form VoNP and the whole VP, etc.' (p. 69). The idea that the 'object-of' relation involves complementation remained standard until the late 1980s, when the possibility of modelling this relation in terms of specification became a serious possibility with the introduction of Larsonian 'VP shell' structures (Larson 1988) for ditransitive constructions as well as a range of other transitive sentence types — including ones in which the direct object is followed by a manner adverb (such as John read the letter carefully, with carefully mapped onto the complement position of the verb, and the letter projected as the specifier of the inner VP). Neither Larson (1988) nor Hale & Keyser (1993), who take the 'VP shell' programme further, propose to systematically represent the 'object-of' relation in terms of specification; but Bowers (2010:1) does: for him, 'every argument is merged as the specifier of a functional category of a particular type' (see also Lin 2001, Borer 2005, Lohndal 2012 and the many references cited there). With the functional categories introducing arguments taken to be the RELATORS of Den Dikken (2006), the 'subject-of' and 'object-of' relations can be unified under the general rubric of predi*cation* relations: the 'object' is the subject of the minimal VP predicate; the 'subject' is the subject of the larger constituent formed by the predication relation between the VP and the object; each predication relation is mediated by a RELATOR, the higher one of which is now customarily identified as v (Chomsky 1995:Chapter 4) or Voice (Kratzer 1996), as in (1). (Henceforth, 'v/Voice' = REL(ATOR)1.)

(1) $[_{RP1=\nu P} \text{ SUBJECT} [RELATOR1=\nu [_{RP2} \text{ OBJECT} [RELATOR2 [_{VP} V (...)]]]]$

With the 'object-of' relation exploiting the specifier position of a predicational RELATOR phrase immediately outside the minimal VP, the complement-of-V position becomes available for other material — secondary predicates, in particular. Both Larson (1988) and Hale & Keyser (1993) call upon the complement-of-V position for this purpose; but convincing arguments recommending their approach over the alternative 'small clause' analysis (according to which secondary predication relations are established wholly within a small clause, either in the complement of the verb or (in the case of depictives) in an adjunction position to the projection of the verb; see *i.a.* Stowell 1983, Hoekstra 1984, 1988, 2004 and references there) have not been forthcoming. I will begin my discussion here with an empirical argument

suggesting that the two approaches are not in competition with one another but should both be available for descriptive adequacy to be achieved.

A structure of the type in (2), where the complement-of-V position is occupied by the AP secondary predicate, seems to come in handy for resultative secondary predication constructions such as (3), which are often said to involve a thematic relation between the verb and the subject of the resultative secondary predicate: that is, it is often claimed that *the floor* is the internal argument of the verb, with the latter sometimes represented as a complex predicate (*paint white*; this goes back to Chomsky's 1965:190 approach to verb-particle constructions). Such claims lend themselves naturally to a representation of (3) as in (2), where the VP is the complex predicate related to the object in SpecRP2.

- (2) $[_{RP1=vP} John [RELATOR1=v [_{RP2} the floor [RELATOR2 [_{VP} V [_{AP} white]]]]]]$
- (3) John painted the floor white

Hoekstra (1988) points out, however, that an interpretation of sentences such as (3) in which *the floor* is the thematic object of the painting event is not the only one supported by such sentences. Though for English (3) it is generally reported to be difficult to access the other reading (for reasons that are not understood), its Dutch counterpart in (4) readily supports an interpretation according to which Jan is clumsily engaged in a painting event directed, for instance, at the ceiling that results in white paint being spattered all over the floor. And even for English speakers, resultatives can easily be found in which the 'object' is not the thematic object of the verb: (5) is ambiguous between a reading in which the painting event was directed at John's hands and a more salient reading in which John arduously painted some unspecified object to such an extent that his hands got sore. Unsurprisingly (in light of the ambiguity of (4)), the Dutch equivalent of (5), given in (6), is ambiguous in the same way.

- (4) Jan heeft de vloer wit geverfd Jan has the floor white painted
- (5) John painted his hands black and blue
- (6) Jan heeft zijn handen bont en blauw geverfd Jan has his fingers motley and blue painted

For interpretations of (3)–(6) on which the object is not the 'paintee', we do not want to assume a thematic relation between the verb *paint* and the object: rather, the latter is uniquely the subject of the secondary predicate, not an argument of the verb *paint* or the complex predicate *paint*+AP.

Intuitively, we would like the syntactic structure of resultatives with such interpretations to feature an implicit object in the thematic object position (i.e., the specifier position of RP2), representing the thing that *is* the 'paintee', and an overt subject just for the secondary predicate. The approach to the 'object-of' relation reflected by (1) affords us just such a structure:

(7) a. [RP1=vP John [REL1=v [RP2 OBJ [REL2 [VP V [RP3 the floor [REL3 [AP white]]]]]]]
b. [RP1=vP John [REL1=v [RP2 OBJ [REL2 [VP V [RP3 his hands [REL3 [AP black and blue]]]]]]]

In (7), 'OBJ' is an implicit object — one that receives a thematic role from the complex predicate dominated by VP but does not and cannot receive a phonological matrix: the overt subject of the small clause in the complement of V sups up the only accusative case feature available in the structure.¹

¹ This caseless unspecified object is the very same thing that also figures in the structure of sentences such as *John was eating*, for which Chomsky (1965:87) advocates a deletion approach ('unspecified object deletion', UOD). Rather than assuming deletion of an object, I adopt here an approach (couched within the 'late insertion' framework of Distributed Morphology) in which 'OBJ' receives no phonological realisation (because it lacks case it is not licensed to be spelled out). The caselessness of 'OBJ' is apparent from the syntax of Romance causative constructions with UOD. As Postal (1977) points out for French, while the ordinary transitive causative in (ia) forces the causee to be introduced by the dative preposition *à*, its UOD counterpart in (ib) has an accusative causee, facilitated by the fact that accusative case is not used up by the object of the causativised verb in this

Though resultative constructions have been discussed at considerable length in the generative literature, what has not, to my knowledge, been noted before is that the 'unspecified object' readings for sentences such as those in (3)–(6) are unavailable in their minimal counterparts in (8)–(11). The sentences in (8)–(11) are all grammatical but they only support readings in which the object is the thematic argument of the painting event. The particles² that were added to (3)–(6) to yield (8)–(11) apparently force the physical object to occupy the specifier position of RP2, where it is interpreted as the subject of the complex predicate dominated by VP: while (2) is a grammatical structure for (8)–(11), (7) is not.

- (8) John painted the floor *up* white John *re*painted the floor white
- (9) Jan heeft de vloer wit {over geverfd/af gelakt}Jan has the floor white over painted/off lacquered
- (10) John painted his hands *up* black and blue John *re*painted his hands black and blue
- (11) Jan heeft zijn handen bont en blauw {*over* geverfd/*af* gelakt} Jan has his hands motley and blue over painted/off lacquered

We can understand this if we assume that the additional particles in (8)–(11) are the occupants of the head of RP2: in (13), REL2, when realised as a particle, makes it impossible for a case-checking relation to be established between v (the source of accusative case) and *the floor* in SpecRP3.³

- (12) $[_{\text{RP1=vP}} John [\text{REL1=v} [_{\text{RP2}} the floor [\text{REL2=PRT} [_{\text{VP}} V [_{\text{AP}} white]]]]]]$
- (13) *[$_{\text{RP1}=vP}$ John [REL1=v [$_{\text{RP2}}$ OBJ [REL2=PRT [$_{\text{VP}}$ V [$_{\text{RP3}}$ the floor [REL3 [$_{\text{AP}}$ white]]]]]]]]

With (13) excluded, the particle constructions in (8)–(11) must be derived along the lines of (12), where the object occupies the specifier position of RP2, and is hence interpreted as the subject of the complex predicate dominated by the VP.

For the complex particle constructions in (14)–(16) (see Kayne 1985 for seminal discussion), an analysis that treats the particle as the spell-out of REL2, outside the VP, is now a logical next step.

- (14) a. they made John *out* a liar
 - b. they made John *out* to be a liar
- (15) a. John turned out a liar
 - b. John turned *out* to be a liar
- (16) a. John ended up a liar
 - b. John ended *up* being a liar

- (i) a. Jean a fait manger le repas \dot{a} Marie b. Jean a fait Marie manger Jean has made eat the meal to Marie Jean has made Marie eat
 - le eat the meal to Marie Jean has made Marie eat

case. (Postal takes (ib) to be an argument for antipassive in French, but the facts here are not exclusively compatible with such an approach.)

² See Keyser & Roeper (1992) on the fact that the prefix re- in English distributes very much like particles.

³ The case-based approach follows in the footsteps of Den Dikken's (1995) analysis of complex particle constructions. Technically, the ban on a case-checking relation across an overtly filled REL2 can perhaps be derived from a phase-theoretic approach, on the assumption that the 'phase extension' (in the sense of Den Dikken 2007) necessary to render v and *the floor* local to one another fails when REL2 is filled by a particle. I will not spell out the details here; it may not be entirely straightforward to work them out. An alternative rationale for the ungrammaticality of (13) could be built on the assumption that an *overt* element in REL2 demands an *overt* element in its specifier. This alternative is less obviously syntactic in nature, and it also does not carry over very easily to some of the facts discussed later in this paper, so I will not adopt it here.

The small clause (*John a liar*) or TP (*John {to be/being} a liar*) is intuitively the internal argument of the verb+particle complex: what was made out, in (14), is that John is a liar; what turns out, in (15), is that John is a liar; and what we end up with in (16) is that John is a liar. But generating the small/non-finite clause in the structural object position, to the left of the particle, is problematic: its predicate (*a liar*) strongly resists being pronounced in that position (**they made John (to be) a liar out* etc.).

The sentences in (14)–(16) are semantically equivalent to those in (17)–(19), with the proleptic ('expletive') pronoun *it* (originating in the SpecRP2 position) serving as a 'place-holder' for the propositional argument.⁴

(17) they made (<u>it</u>) *out* that John was a liar [_{RP1=vP} they [REL1=v [_{RP2} OBJ=(<u>it</u>) [REL2=**PRT** [_{VP} V [_{CP} that John was a liar]]]]]]

(18) \underline{it} turned *out* that John was a liar

- [_{TP} <u>it</u> turned [_{RP2} OBJ=it [REL2= PRT [_{VP} V [_{CP} that John was a liar]]]]]
- (19) <u>it</u> ended *up* that John was a liar [TP <u>it</u> ended [RP2 OBJ=it [REL2=**PRT** [VP V [CP that John was a liar]]]]]

In (17)–(19), *it* is linked to the *that*-clause in post-particle position — the two form an 'expletiveassociate CHAIN' in the sense of Chomsky (1986). The pronoun in the examples in (18) and (19) must be overt (for EPP reasons), just as in the more familiar raising constructions with *seem* and *appear*; since the (classic, Chomsky 1981-style) EPP is not in effect for the SpecRP2 position, an overt pronoun is not required when there is no raising to the structural subject position, as in (17). But when it is not pronounced, a silent token of *it* still takes care of the association of the *that*-clause with the 'object-of' function, by proxy. I will turn shortly to the question of what happens to 'OBJ' in the examples in (14)– (16), and to the question of how the surface word orders of these examples are derived. But first, I would like to present a few simple empirical arguments in favour of VP-external base-generation of the particles in these examples.

One immediate advantage of treating the particle as the realisation of the VP-external REL2 is that the strings to be a liar and being a liar end up, by themselves, in the complement position of V. This is desirable in light of the idiosyncratic selectional relation between, on the one hand, turn out and a to-infinitive and, on the other, end up and an -ing gerund.⁵ The selection of a to-infinitive or a gerund is based on the verb, not on the particle: just like something ends being, rather than to be, boring, so it ends up being, rather than to be, such; I brought him up to be my pride and joy is fine, so there clearly is no problem with the particle up combining with a to-infinitive. Since selectional relations are highly local relations, what we need for (15) and (16) is a structure in which the non-finite clause is the complement of V, not separated from it by a particle. Structures of the type in (17)–(19) guarantee precisely this.

A second advantage of placing the particle outside VP is that it frees up space *inside* the VP for other functional elements for which it is plausible to treat them as spell-outs of RELATORS — such as *as* in (20) or *voor* 'for' in Dutch (21) (see Den Dikken 2006 on *as* and *voor* as RELATORS).

- (20) a. they made John *out* as a liar
 - b. John turned out as a serious candidate
 - c. John ended up as a nice guy
- (21) ze maakten Jan *uit* <u>voor</u> leugenaar they made Jan out for liar

⁴ Den Dikken (1995:54) states that *it* is impossible in (17), but as Larsen (2014) points out, this is inaccurate: there are many attested instances of *made it out that S*, and many native speakers (though apparently not all) find those acceptable.

⁵ While *end up to be x* seems much worse than *end up being x, turn out being x* is not infrequent (though much less common than *turn out to be x*)— see the discussion in the on-line forum http://forum.wordreference.com/showthread.php?t=2038538.

The underlined elements in (20) and (21) can now be treated as spell-outs of the head of an RP in the complement of V — a small clause in whose specifier position the object originates:

(22) $[\text{REL2}=\text{PRT}[_{\text{VP}} V [_{\text{RP3}} John [\text{REL3}=(\underline{as}) [_{x\text{NP}} a \ liar]]]]]$

Thirdly, base-generation of the particle outside the VP rather than within the complement of V yields an immediate pay-off in the account of the facts in (23)–(25), involving inversion of the predicate of RP3 around its subject and obligatory realisation of a copular element in the complement of V.

- (23) they made the biggest liar *out* *(to be) John
- (24) the biggest liar turned *out* *(to be) John
- (25) the biggest liar ended *up* *(being) John

For familiar copular inversion cases such as (26b), the obligatoriness of the copula in a context in which (as (26a) shows) it is in principle optional is commonly accounted for with an appeal to a 'space problem':⁶ copular inversion is a movement operation manoeuvring the predicate around its subject, which requires for there to be space in the structure for the predicate to land in; the copula provides this space, and is therefore obligatory.

- (26) a. I consider John (to be) the biggest liar
 - b. I consider the biggest liar *(to be) John

If the particles *out* and *up* in (23)–(25) originated within the complement of V, between V and the small clauses establishing the predication relation between *the biggest liar* and *John* (RP3 in (22)), the fact that these particles do not 'solve the space problem' would be difficult to account for. In (27)–(28) (due to Heycock 1994) and the double-object construction in (29) (analysed by Den Dikken 1995 in terms of predicate inversion), inversion is successful *without* the need for a copula precisely because in all of these constructions there is indeed a 'space-maker' in between the small clause and V: an aspectual head in (27)–(28) (see Den Dikken 2006:146–7 for discussion) and the particle *out* in (29) (see Den Dikken 1995).⁷ But apparently in (23)–(25) there is not: for predicate inversion to come out grammatical here, a token of the copula is required in (23)–(25) just as it is in (26b). This follows directly from the hypothesis that the particles in these examples originate outside VP, as depicted in the structures below the examples in (17)–(19) and in (22): in that high position, they cannot help make predicate inversion (which is a strictly local operation) possible, so copulas are called upon to bring this about.

- (27) the best solution becomes/remains instant retreat $[_{VP} V [_{AspP} the best solution_i [Asp [_{RP} instant retreat [RELATOR t_i]]]]]$
- (28) if Bill has an alibi for 6 p.m., that makes the murderer John $\begin{bmatrix} VP & V \\ AspP & the murderer_i \\ [Asp & John \\ [RELATOR t_i]]] \end{bmatrix}$

⁶ I am presenting the problem in the simplest of terms here in order not to unduly complicate the discussion in this short paper; for technical details and references to relevant literature, see Den Dikken (2006).

⁷ I am following my 1995 analysis of ditransitive verb-particle constructions here, generating the particle in the complement of V. But for the constructions in (14)–(16) I now take a different approach from the one advocated in Den Dikken (1995). The heterogeneity of the new analysis is justified on semantic as well as syntactic grounds: while in *they sent a schedule out to the stockholders* there is an intuition that *out* forms a tight-knit semantic unit with *to the stockholders*, for *they made John out a liar* and its ilk there is no sense in which *out* belongs closely to the predicate of the small clause; and while extraction of the predicate *a liar* and modification of the particle are impossible and placement of the particle is fixed in (14)–(16), we find a very different tangle of facts for *they sent a schedule out to the stockholders* (see Den Dikken 1995 for discussion). The fact that *they sent the stockholders out a schedule* behaves in many ways very much like *they made John out a liar* is one that I cannot address explicitly here; but see Den Dikken (1995) for what I still consider to be a plausible analysis of the properties of the former.

(29)they sent the stockholders out a schedule

 $[VP V [PrtP [P_{\emptyset} the stockholders]_i [PRT=out [RP a schedule [RELATOR t_i]]]]$

With these three arguments cementing the foundations for the analyses of (14)–(16), we now face three important questions: (a) what about the implicit object 'OBJ' in the structures for these sentences? (b) how is John case-licensed (bearing in mind that we had blamed the ill-formedness of (13) on a failure on the part of the floor to get its case feature checked)? and (c) how do the structures of (14a,b) accommodate the output word order, with John to the left of the particle?

While in (17) the proleptic object pronoun is optionally overt, in (14) it cannot be spelled out as it at all: **they made it out John (to be) a liar* is entirely impossible. This is directly parallel to the fact that in constructions with a small or non-finite clause in the complement of *turn out* or *end up* (recall (15)–(16)), the structural subject position cannot be filled by it: *it turned out John (to be) a liar,⁸ *it ended up John (being) a liar. The problem in all these cases is that the case-dependent noun phrase John cannot get its case feature checked: it usurps the only case feature that John might hope to check (accusative in the make out case, nominative with turn out/end up). But even when it is not present, John cannot freely be spelled out inside the complement of V: while ^(?) they made out John to be a liar is generally acceptable, *? they made out John a liar is rejected by the vast majority of speakers.⁹ We had already established in the discussion of (13) that the particle blocks *in-situ* case checking for the subject of the small clause in the complement of V. For (13) there was no way out: raising of the floor into the 'OBJ' position would turn it into the subject of the VP predicate *paint white*, which would give the sentence an interpretation different from the one intended — the intended reading for (13) is one in which the floor is not the 'paintee'; but raising the floor into SpecRP2 would deliver a reading in which it is. By contrast, in the case of (14), raising John into SpecRP2 is not semantically undesirable: John will be interpreted as the subject of the complex predicate *make out a liar*.¹⁰

The fact that ^(?)they made out John to be a liar is much better than *[?]they made out John a liar is ascribed by Lasnik (1999, 2003) and Hong & Lasnik (2010) to a mysterious difference between toinfinitival and small-clause ECM subjects: while the latter are compelled to raise, the former do so only optionally. Not only is optionality of operations generally difficult to countenance in the minimalist era, there is no obvious theoretical rationale for a difference between to-infinitives and small clauses with respect to the obligatoriness of the raising of their subjects. It seems to me more likely that the grammaticality of *make out x to be y* is to be related to the fact that the infinitival clause of *make out* constructions can optionally be introduced by the complementiser for, and that, whenever for is present, the subject of the infinitival clause must perforce be to the right of the particle (*they made out for John to be a liar*).¹¹

- they made out for you to be old (i) a.
 - worse than Gabe made out for him to be b.
 - c. if the lake was really as bad as they made out for it to be
 - d. I didn't think it was as bad as they made out for it to be

⁸ On a par with **it seemed/appeared/was likely John (to be) a liar*, the canonical raising environment.

⁹ The judgements reported here on make out a liar constructions are those originally reported by Kayne (1985). See Larsen (2014) for a somewhat more nuanced perspective which does not, however, invalidate Kayne's original characterisation of the empirical lie of the land.

¹⁰ In the case of (14a) evidence for raising of John into SpecRP2 as opposed to base-generating John in the SpecRP2 position is hard to come by. Floating quantifier distribution, for instance, does not confirm raising of John from a position to the right of the particle: he made the children <all> out <??all> crazy is clearly much worse with all between out and crazy. On the other hand, in the corresponding to-infinitival construction, he made the children <all> out <all> to be crazy, placement of all to the right of out is natural — which suggests that in the to-infinitival case there definitely is raising going on, not surprisingly in light of the EPP (which requires SpecTP to be occupied). For the sake of uniformity, I will assume raising in both the small-clause and the to-infinitival case, which is perhaps supported on the basis of the fact that extraction from the subject of the small clause is entirely impossible in the make x out a liar lang2057 construction: the strong deviance of *who did they make a friend of out (to be) a liar could be attributed to a freezing effect if the small-clause subject is forced to raise into SpecRP2 instead of being basegenerated there. ¹¹ Below are some attested examples of the *for-to* type, found on the internet:

This datum can be taken to lead us further to the hypothesis that whenever the subject of the infinitival clause follows the particle *out*, it is case-licensed inside the infinitival clause by the infinitival complementiser, which has a silent allomorph (see Kayne 1984 on ECM in *want*-constructions, and also further below). Optionality is now reduced to lexical choices (selection of a 'bare' infinitival TP or a CP; overt or silent allomorph of *for*), a natural point of variation.

The proposal, then, is that in *they made John out to be a liar* the infinitive's subject raises into SpecRP2, a position in the matrix clause, whereas in ^(?)*they made out John to be a liar* the infinitival clause is a CP with a case-licensing C-head that keeps the subject inside its clause. How does this make sense of the scope facts that Lasnik (1999, 2003) and Hong & Lasnik (2010:281) present? They point out that *make out x to be y* permits narrow scope for *every even number* in (30a) ('the mathematician determined that it is not the case that every even number is the sum of two primes') and *no students* in (31a) ('the FBI determined that there were no students guilty'), while the *make x out to be y* order in (30/31b) forces wide scope for *every even number* ('the mathematician determined that it is not the sum of two primes', 'for no students is it the case that the FBI made them out to be guilty'). To complete the picture, I add that for the small-clause case in (31c), which Hong & Lasnik do not present, we get the same behaviour as for (31b): wide scope of *no students* is again the only option.

- (30) a. the mathematician made *out* every even number not to be the sum of two primes
 - b. the mathematician made every even number *out* not to be the sum of two primes
- (31) a. the FBI made *out* no students to be guilty
 - b. the FBI made no students out to be guilty
 - c. the FBI made no students out guilty

The fact that (30b) and (31b,c) are scopally unambiguous and force wide scope for the quantifier can be understood from the point of view of the analysis proposed for these sentences once we realise that their derivations involve movement into a θ -position: the SpecRP2 position is the 'object-of' position, its occupant a subject of predication. Movement into a θ -position (heavily exploited in the 'movement theory of control') does not reconstruct: the thematic landing-site of movement is a position in which the moved element must be interpreted (cf. Hornstein 1998). This, then, is genuine 'raising to object' or 'subject-toobject raising' (Postal 1974), made possible by the representation of the 'object-of' relation as a specification relation.¹²

I suggested three paragraphs back that the linear order *make out x to be y* is derived from a structure in which *make out* takes an infinitival CP as its complement. How does this structure allow the quantifier in (31a) to take matrix scope? Here we should tread with care. Larson *et al.* (1997:89, fn. 37) point out that quantified subjects of *want*-type verbs, for which they assume, following Kayne (1984), that they take a CP complement, 'do not routinely show the same scopal possibilities as quantified subjects of *believe*-type verbs, even when the complementizer *for* is absent'. Wide scope for *every defendant vis-àvis* the matrix subject is harder to get in (32) than it is in (33); and within (32), it is harder in the asentence (which has overt *for*) than in the b-example. But even in (32a) it does not seem entirely impossible to get an inverse scope reading.

- (32) a. some juror wants for every defendant to be acquitted
 - b. some juror wants every defendant to be acquitted
- (33) some juror believes every defendant to be guilty

The infinitival CP itself does not seem to be a strong impediment to the establishment of a dependency across it (as witness the grammaticality of *he prefers for himself to win*; see Larson *et al.* 1997:65, fn. 13). The difficulty of getting wide scope for *every defendant* in (32a) may ultimately have more to do

¹² With objects analysed as complements, 'raising to object' is of course a complete anomaly in a minimalist theory of internal Merge: movement into complement position cannot extend the tree.

with the presence of an overt complementiser¹³ than with the opacity of the infinitival CP. Why it is still relatively difficult to obtain wide scope for *every defendant* when the C-head is silent (as in (32b)) is not entirely clear. I will assume it to be structurally possible, in (32b) as well as in (30a) and (31a).

To make the empirical picture complete, we should include the versions of (32b) and (33) lacking *to be*, given in (34) and (35). These both resist wide scope of the universal QP, behaving just like (31c) in allowing linear scope only (see Hong & Lasnik 2010 and earlier references cited there).

- (34) some juror wants every defendant acquitted
- (35) some juror believes every defendant guilty

For (31c) we have already derived its frozen scope, from movement into a θ -position (literal 'raising to object'). For (34) and (35) we are now led to make the same assumption. But while for the *make out* construction the need to raise the small-clause subject was made to fall out from the hypothesis that the particle *out* obstructs a case-checking relation between *v* and the *in-situ* subject of *guilty*, there is no particle around in the examples in (34) and (35) to do the same thing. So why is 'raising to object' obligatory here as well?

Let me start with the contrast between (32b) (which allows inverse scope, albeit not quite as easily as does (33)) and (34) (where wide scope for the universal QP is unavailable). Following Kayne (1984) and Larson *et al.* (1997), I have assumed that in (32b) the infinitival clause is a CP with a silent complementiser — so the structure of (32b) is similar to that of (17), featuring a silent proleptic object 'OBJ' that serves as a place-holder for the CP in the complement position of V. In (36), the universal QP does not raise into the 'object-of' position, and is structurally allowed to take either wide or narrow scope with respect to *some juror* (assuming, as before, that silent infinitival C does not obstruct QR). For the corresponding small-clause example in (34), a structure identical to (36) save for the category of V's complement, given in (37), is ill-formed. Small clauses cannot be associated with proleptic objects because of a featural non-match: the proleptic object is a pronominal element, equipped with φ -features; but small clauses, unlike CPs, have no φ -features hence cannot serve as associates of pronouns.¹⁴ With (37) ill-formed, we must resort to (38) instead. Here 'raising to object' takes place, freezing the universal QP's scope. This derives the lack of ambiguity in (34).

- (36) [RP1=vP some juror [REL1=v [RP2 OBJi [REL2 [VP V [CP Cø every defendant to be acquitted]i]]]]]
- (37) *[$_{\text{RP1}=vP}$ some juror [REL1=v [$_{\text{RP2}}$ OBJ_i [REL2 [$_{\text{VP}}$ V [$_{\text{RP3}}$ every defendant acquitted]_i]]]]]
- (38) $[_{RP1=vP} \text{ some juror } [REL1=v [_{RP2} \text{ every defendant}_{j} [REL2 [_{VP} V [_{RP3} t_{j} acquitted]]]]]]$

With the account of (34) now in place, the scopal rigidity of (35) is no longer a mystery: the derivation of (35) is entirely on a par with that of (34), given in (38). The question now is a different one: how can we *avoid* 'raising to object' in the example in (33)? If the structure of (33) involves an infinitival TP in the complement of V, as in (39), it will be extremely difficult to prevent 'raising to object': the infinitival TP is just like the small clause in (37) in lacking φ -features,¹⁵ hence it should not be able to serve as the associate of a proleptic pronoun in the object position; the structure in (39) is ungrammatical. To get a grammatical syntax for (32) we can do either of two things: *(a)* we can perform 'raising to object' on the subject of the infinitival TP in the complement of V, as in (40), or *(b)* we can postulate a null-headed CP in the complement of V, associated with a proleptic pronoun in the 'object-of' position, as in (41).

¹³ Apparently not subject to deletion at LF, pace Lasnik & Saito's (1984) discussion of that.

¹⁴ Their lack of φ -features also accounts for the fact that they cannot serve as subjects of finite clauses. See Safir (1983) and Den Dikken (1987) on cases like *workers angry about the pay was just the sort of situation that the ad campaign was designed to avoid*, involving what Safir calls 'Honorary NPs', a term that should be taken quite literally and be translated into an analysis in which the small clause [*workers angry about the pay*] is dominated by a noun phrase with a silent head (something like 'SITUATION'). Small clauses *by themselves* cannot be subjects.

¹⁵ Just like small clauses (recall the previous footnote), infinitival TPs cannot serve as subjects.

- (39) $*[_{RP1=\nu P} \text{ some juror } [REL1=\nu [_{RP2} OBJ_i [REL2 [_{VP} V [_{TP} \text{ every defendant to be guilty}_i]]]]]$
- (40) $[_{\text{RP1}=vP} \text{ some juror } [\text{REL1}=v [_{\text{RP2}} \text{ every defendant}_j [\text{REL2} [_{\text{VP}} V [_{\text{TP}} t_j \text{ to be guilty}]]]]]]$
- (41) $[_{RP1=vP} \text{ some juror} [REL1=v [_{RP2} OBJ_i [REL2 [_{VP} V [_{CP} C_{\emptyset} every defendant to be guilty]_i]]]]]$

The PF outputs of the structures in (40) and (41) are indistinguishable. But their LFs are not — while (40) blocks wide scope for the universal QP, (41) allows this. Of course the narrow-scope reading for *every defendant* that both (40) and (41) support is readily available for (33). But (33) also supports an inverse scope interpretation, and that interpretation cannot be obtained via the 'raising to object' derivation if what I argued above is accurate. There is another thing that this derivation does not support: sentences with expletive *there* or idiom-chunk ECM subjects, which both resist the θ -role assigned in the SpecRP2 position, should not be derivable via 'raising to object'. The fact that sentences like *they believe there to be several people missing* and *they believe the shit to be hitting the fan soon* are perfectly grammatical tells us, in conjunction with the availability of wide scope for *every defendant* in (33), that ECM constructions with *believe* must support a derivation, in addition to the one involving 'raising to object', in which the ECM subject is not in the 'object-of' position (SpecRP2). That derivation is (41).

A derivation of this sort is not customarily posited for *believe*-type ECM constructions: the standard approach is to treat the infinitival complement of *believe*-type ECM constructions as a 'bare' TP, not as a null-headed CP. There are differences, to be sure, between *want*-type and *believe*-type ECM constructions (for instance, with respect to passivisation: while *John is believed to be guilty* is fine, **John is wanted to have a seat* is not, contrasting sharply with *they want John to have a seat*). Those differences suggest that 'V' in the structures in (36) and (41) has a lexically variable ability to make the CP in its complement transparent to certain syntactic operations, including NP-movement: while V can open up its CP complement for NP-movement in (41), it cannot in (36). This lexical variability is closely tied in with the variability seen in the realm of 'restructuring'. I have no substantive contribution to make to this thorny problem, which has been on the research agenda for several decades. But it seems to me that the differences between *believe*-type and *want*-type ECM constructions should not necessarily stand in the way of an analysis of the former in terms of CP-complementation, as in (41).

We now arrive at the conclusion that all infinitival ECM constructions of English can involve CPcomplementation — not just the *want*-type cases but also the *make out* and *believe*-type cases. This may make it a little bit easier to account for the fact that English differs from many of the other Indo-European languages in having ECM with infinitival clauses: within Germanic, English differs markedly from Dutch and German in this regard; and the Romance languages, as a group, lack (straightforward) ECM with infinitival clauses as well.¹⁶ This is likely due to one simple lexical difference between these languages: while English has a case-licensing infinitival complementiser (with a zero allomorph), Dutch, German and the Romance languages do not. But note that this will only deliver a *complete* account of the difference between English and these other languages with respect to the distribution of ECM with infinitival clauses if (40) (with 'raising to object') is unavailable in the latter languages as well. The unavailability of (40) cannot be attributed to lexical quirks of infinitival complementisers: there is no C in (40). I see no solution for this yet.

Note that none of what I have said in the preceding paragraphs regarding the representation of ECM in constructions with propositional-attitude verbs affects the analysis previously proposed for resultative constructions. In particular, nothing I have said regarding the former impinges on the grammaticality of the structure in (7b), proposed for the 'unspecified object' reading of resultatives like *he painted his hands black and blue*. The important thing to bear in mind is that 'OBJ' in (7b) is *not* a proleptic object associated with the small clause in the V-complement position: there is no interpretive link at all between the unspecified object and the resultative small clause in (7b). In (37), by contrast, 'OBJ' needs to be a

¹⁶ In some of the Romance languages (French is one; see Kayne 1984), the problem with sentences such as **je crois Jean être intelligent* 'I believe Jean to.be intelligent' can be circumvented in a number of ways (via *wh*-movement, cliticisation or NP-movement of the subject of the infinitival clause). But without these additional operations, ECM with infinitival clauses consistently fails.

place-holder for the complement of V, which wants to get the 'object-of' interpretation. And precisely because proleptic objects cannot be associated with small clauses, (37) fails.

Before wrapping up, there is one more piece of business that needs to be addressed. In the structures of make out constructions proposed and defended in this paper, the particle spells out a head position (REL2) in between v and V. How does this make it possible for v and V to 'come together' and be spelled out jointly as the verb make? I am taking a 'late insertion' approach to the lexicalisation of syntactic structures, following Distributed Morphology (Halle & Marantz 1993) and Nanosyntax (Starke 2009), and assume that the verb must spell out some portion of the Agree chain that v and V are both included in. The set of syntactic categories $\{T, REL1=v, REL2, V\}$ in the structures under discussion in this paper together form a single Agree chain: (T, REL1=v, REL2, V). In English, the verb will be spelled out at v, never higher (there is no 'V-to-T movement' in English; no recourse to movement needs to be had in the approach taken here) and never lower (Modern English is not an OV language). In the verb-particle constructions that are the focus of the investigation here, a second element of the (T, REL1=v, REL2, V) Agree chain is spelled out as well, as the particle (at REL2). Using the nanosyntactic notion of 'spanning' (see Svenonius 2012, Dékány 2011, also Brody 2000), we say that the verb (make in make out) spans T and REL1=v, and the particle (out) spans REL2 and V. Since make (qua span of the upper portion of the T/V-chain) and out (qua span of the lower portion of that chain) spell out different parts of a single chain (T, REL1=v, REL2, V), they in effect form a 'complex verb' — though make out is not represented as a V^0 unit, its ingredients (two spans involving different subparts of the chain) are part of a single Agree chain whose head is T and whose foot is V. The ingredients of the chain have relative syntactic autonomy. By taking a 'late insertion' approach that allows more than one part of the maximal T/V-chain to be realised individually, the proposal laid out here gives us the benefits of 'complex verb' approaches to verb-particle constructions of the *make out* type without having to countenance the more troublesome aspects of it (such as 'excorporation', or attachment of inflection inside a complex X^0).

Once we allow the Agree chain (T, REL1=v, REL2, V) to have more than a single exponent, a range of other interesting possibilities presents itself. I will briefly mention two here. The first lies in the realm of so-called serial verb constructions. Serial verb constructions are clauses with multiple finite verbs sharing the same subject (and often the same object as well), all with the same tense value (see Stahlke 1970). The various verbal elements are all members of a single T/V Agree chain; *take* serials (such as (42a) from Yorùbá) are particularly interesting because in these, the *take* verb is arguably the representative of the 'light verb' v of the chain (spanning T and REL1=v), and the second verb represents REL2 and V, with the object sandwiched between the two in the SpecRP2 position (see (42b)). The *take* verb and the second verb are two individual exponents of the (T, REL1=v, REL2, V) chain, necessarily sharing the same tense value.

- (42) a. mo mú ìwé wá ilé
 I took book came house
 'I brought a book home'
 - b. $[_{\text{RP1=vP}} mo [\text{REL1=v=}m\acute{u} [_{\text{RP2}} iw\acute{e} [\text{REL2} [_{\text{VP}} V=w\acute{a} [_{\text{PP}} P_{\emptyset} il\acute{e}]]]]]$

The second possibility presents itself in the context of so-called semi-cleft constructions, found in several of the Romance languages (incl. European and Brazilian Portuguese, and Latin-American (though not Iberian) Spanish; see *i.a.* Wheeler 1982, Toribio 1992, 2002, Bosque 1999, Costa & Duarte 2001, Camacho 2006, Kato 1996, 2010, Mioto 2006a,b, 2008, Kato & Mioto 2012, Méndez Vallejo 2009, Resenes & Den Dikken 2012). The Portuguese sentence in (43b) is a variant of (43a) differing only in *(a)* the presence of a finite copular element between the verb and the direct object and *(b)* the obligatory contrastive focus reading of the object. The null hypothesis is that the same structure that underlies (43a) (*viz.*, (44)) also serves as the source for the semi-cleft in (43b). The Agree chain (T, REL1=v, REL2, V) is realised singly in (43a), as the verb *comprou* 'bought' (i.e., *comprou* spans the entire set of heads in the Agree chain). Imagine now that the same chain has multiple exponents, with *comprou* spelled out in T and the finite copula *foi* spanning REL1=v, REL2 and V, and being spelled out in REL1=v. Since *comprou*

and *foi* are exponent members of the same T/V-chain, they have the same tense and φ -feature inflections. This delivers exactly the output in (43b), with the copula immediately preceding the object and marking it for contrastive focus.¹⁷

(43)	a.	o João comprou um livro	
		the João bought a book	
	b.	o João comprou <i>foi</i> um livro	['semi-cleft']
		the João bought was a book	

(44) $[_{\text{TP}} o Jo\tilde{a}o_i [T [_{\text{RP1=vP}} t_i [\text{REL1=v} [_{\text{RP2}} um livro [\text{REL2} [_{\text{VP}} V]]]]]]$

If this maximally simple approach to semi-clefts is on the right track, it predicts that in secondary predication constructions, the copula should have more placement possibilities, because more positions in the T/V-chain immediately precede material that is contrastively focusable. And indeed, this is the case. Consider the examples in (45) and (46).

- (45) a. o João pôs o livro na prateleira the João put the book on the shelf 'João put the book on the shelf'
 - b. o João pôs *foi* o livro na prateleira the João put was the book on the shelf
 - c. o João pôs o livro *foi* na prateleira the João put the book was on the shelf
- a. o João considera a Maria inteligente the João considers the Maria intelligent
 'João considers Maria intelligent'
 - b. o João considera *é* a Maria inteligente the João considers is the Maria intelligent
 - c. o João considera a Maria *é* inteligente the João considers the Maria is intelligent

Following the logic of the preceding discussion, for the construction illustrated by (45) the derivation looks as in (47) (cf. (2), above), and (48) (cf. (38)) represents (46). We can again treat the semi-clefts as featuring T/V-chains with multiple exponents, the main verb spelled out in T and the additional copula spelled out either at REL1=v (immediately preceding the object) or at REL2 (preceding the secondary predicate).

- (47) $[_{\text{TP}} o João_i [T [_{\text{RP1=}\nu\text{P}} t_i [\text{REL1=}\nu [_{\text{RP2}} o livro [\text{REL2} [_{\text{VP}} V [_{\text{PP}} na prateleira]]]]]]$
- (48) $[_{\text{TP}} o João_i [T [_{\text{RP1}=vP} t_i [\text{REL1}=v [_{\text{RP2}} a Maria_j [\text{REL2} [_{\text{VP}} V [_{\text{RP3}} t_j inteligente]]]]]]$

Interestingly, there is an interpretive difference between (45b) and (46b) with respect to the size of the focused constituent. Whereas in (45b) contrastive focus, marked by *foi*, can be either on *o livro* or on the entire string *o livro na prateleira*, in (46b) contrastive focus is strictly confined to *a Maria*. The difference between the derivations for (45b) and (46b), based on (47) and (48), allows us to make sense of this. In (47), *o livro* is base-generated in the 'object-of' position, SpecRP2; in (48), on the other hand, *a Maria*

¹⁷ This analysis of (43b) marks a simplification of the analysis proposed in Resenes & Den Dikken (2012), which involves predicate inversion. There is no doubt that predicate inversion *can* indeed take place in the derivation of certain semi-clefts — in particular, in the derivation of cases like *o João pôs na prateleira foi o livro* 'João put on the shelf was the book' and *o João considera inteligente é a Maria* 'João considers intelligent is Maria'. And there is no obvious way of *blocking* the predicate-inversion derivation for (43b), which I will not withdraw, therefore. But it seems to me that there is a simpler derivation for (43b) available as well, *viz.*, the one described in the main text; and this derivation gives us an interesting handle on the semi-clefts with secondary predication presented below.

has undergone 'raising to object', and is hence in a derived left-branch position. Derived left-branch positions are consistently narrow-focus positions — positions from which focus does not 'project' to the containing phrasal constituent.¹⁸ Thus, *JOHN studies linguistics* can be felicitously contrasted with *BILL studies linguistics*, but not with *BILL plays the guitar*. The minimal difference between (47) and (48) involving movement of the subject of secondary predication into the 'object-of' position is precisely what is responsible for the difference in information-structural properties of the semi-clefts in (45b) and (46b).¹⁹

Let me conclude. I have presented an approach to the syntax of the 'object-of' relation that represents it in terms of specification: the object function is projected onto the specifier of a RELATOR phrase projected immediately outside the minimal VP; whenever there is an external argument, the predication thus derived is in turn predicated of that argument, with the aid of a second RELATOR (now customarily referred to as v). The 'object-of' and 'subject-of' relations are structurally assimilated; the difference between them lies in the height in the structure at which they are established. Secondary predication constructions (including resultatives and constructions involving propositional-attitude verbs) played an important role in the discussion. We have been led to the conclusion that literal 'raising to object' genuinely exists: movement to the specifier position of the RELATOR phrase immediately outside VP is possible, and constitutes movement into a θ -position. The frozen scope of sentences like *someone* considers everyone smart was derived from this, as was the fact that when focus is placed on the subject of the secondary predicate in the semi-cleft versions of such constructions, we are always dealing with narrow focus. In the course of the discussion, I have unfolded an approach to some verb-particle constructions (in particular, those involving make out, turn out and end up) according to which the particle is outside VP, lexicalising the RELATOR-head involved in the establishment of the 'object-of' relation. This approach led me to rethink the link between V and v along 'late insertion' lines. Agree chains of multiple categories (in particular, T/V-chains) can have more than a single exponent, with each exponent lexicalising either a single position in the chain or a span of multiple heads. Such multiple exponence is found not just in verb-particle constructions featuring make out, turn out and end up, but also in serial verb constructions and semi-clefts. The wider applicability of this idea beyond the cases discussed will, it is hoped, prove a fruitful area of future investigation.

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¹⁸ This is doubtless related to the well-known fact that subextraction from derived left-branch positions is likewise impossible.

¹⁹ Needless to say, this simple sketch of the syntax of a few semi-cleft constructions does not constitute a complete analysis. See Resenes (2014) for much detailed discussion of the syntax of semi-clefts in Brazilian Portuguese (not incorporating the approach to the spell-out of tensed-verbal chains outlined here).

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