

NOTES AND DISCUSSION

Auxiliaries: *To*'s company¹

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In a 1982 paper in the journal *Glossa*, Pullum outlined a set of arguments for treating English infinitival *to* as a defective auxiliary verb. Twenty years later, in his entry on infinitival constructions in *The Cambridge Grammar of the English Language* (CGEL, 2002), Huddleston argues that several distributional facts about auxiliaries fit poorly with this hypothesis. He proposes, on the basis of significant structural parallels, that *to* is a subordinator (complementizer). I show that Huddleston's arguments constitute a flawed analysis in CGEL's otherwise superb coverage of English descriptive grammar, and that the facts run strongly counter to his claims, often falling out independently from generalizations about auxiliaries that Huddleston overlooks. Several of these points were anticipated in Pullum's paper, but recent research on an idiosyncratic auxiliary-specific pattern of English nonrestrictive relative clause formation provides a powerful new argument in support of the auxiliary claim. In this respect, as in all others, the assignment of *to* to the class of auxiliaries provides the simplest and broadest account of its syntactic behavior.

I. INFINITIVAL *TO*: AN OVERVIEW

Pullum (1982), citing earlier suggestions informally circulated by both Paul Postal and Richard Hudson, and published work by Robert Fiengo (1980), gives syntactic arguments that infinitival *to* is a nonfinite auxiliary. These arguments, while persuasive and influential, have not gone undisputed; most recently, Huddleston (2002a), in his extensive entry on infinitival constructions in *The Cambridge Grammar of the English Language* (Huddleston &

[1] I am greatly indebted to Geoff Pullum for enjoyable discussions, over many years, about (*inter alia*) the pros and cons of analyzing infinitival *to* as an auxiliary, and for extremely helpful feedback on an early version of this paper; and to Bob Borsley for helpful conversations about *to* and the implications for its analysis of the Auxiliary Stranding Relative Clause (ASRC) construction described below. A preliminary version of this paper was presented to the Department of Linguistics Syntax Group at the University of Essex in 2009; I very much appreciate the input I got from the group, and for the kindness of the Essex department generally during my sabbatical there. Finally, I should like to thank the referees for *Journal of Linguistics* whose comments made clear to me where I needed to sharpen the details of my argument, and where I needed to drastically condense it. All surviving shortcomings are mine alone.

Pullum et al. 2002, henceforth *CGEL*), argues against Pullum's analysis. His challenge comprises the following points:

- the elliptical stranding possibilities for *to* are constrained in ways that do not hold for auxiliaries, requiring special conditions if *to* is analyzed as an auxiliary;
- *to* differs from all overt auxiliaries in its failure to head a main clause;
- *to* is semantically vacuous, in contrast to undisputed verbs; and
- its distribution displays a pattern of optionality which is far more typical of complementizers – with *that* the paradigm example – than of what we expect from auxiliaries.

In Huddleston's view, these alleged deficits require stipulative conditions on auxiliary *to* which offset the claimed benefits of taking *to* to belong to this class. Conversely, he claims that some of the distributional facts which have been adduced on behalf of auxiliary *to* can be captured by alternative formulations which do not depend on properties of auxiliaries and therefore need not be taken as supporting Pullum's proposal.

I argue in what follows that Huddleston's objections are either empirically untenable or fall out (as noted by Pullum in his original paper) on completely independent grounds (Section 2), and that new research findings confirm the behavior of *to* as strongly auxiliary-like, in ways at odds with the behavior of subordinators, or phrases marked by such elements (Section 3). My findings, summarized in Section 4, strongly suggest that Pullum's original conclusion was indeed the correct one.

2. NONARGUMENTS AGAINST AUXILIARY *TO*

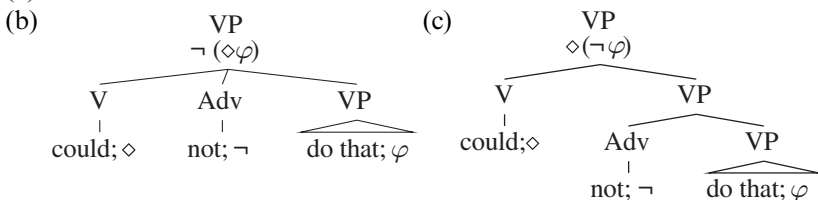
2.1 *The argument from putative exceptionality*

Huddleston invokes an array of data adduced in Stirling & Huddleston (2002), including the contrast between *They suggested I call the police, but I decided not to/*to not __* and *They said I should call the police, but I decided I should not __*. Huddleston's argument from this contrast centers on the claim that 'unlike auxiliary verbs, *to* must immediately precede the ellipsis site' (Huddleston 2002: 1526); therefore, some special exception must be stipulated for *to* to exempt it from this supposed general pattern. But Pullum had already spoken to this point, in his observation that 'although *not* can follow a finite auxiliary that is stranded by VP ellipsis, IT IS IMPOSSIBLE TO HAVE *NOT* AFTER A STRANDED NONFINITE AUXILIARY ... EXACTLY THE SAME THING IS TRUE WITH *not* PLACED AFTER STRANDED *to*' (Pullum 1982: 201–202; emphasis added), and, as I now argue, Pullum was right.

The key point here is that the pattern Huddleston attributes to auxiliary verbs in general holds only for FINITE auxiliary verbs. The latter can appear in two distinct syntactic structures involving negation, which we illustrate here

via the modal *could*, with the semantic contributions of the substructures in the trees given in much abbreviated form:

(1) (a) Robin could not do that.



These two structures, as shown in Gazdar, Pullum & Sag (1982), Warner (2000), and Kim & Sag (2002), give rise to a semantic scope ambiguity (as in the annotations at the top of the two trees in (1)), which corresponds systematically to differences in the form of appropriate tag questions (*You could not do it, could you?* ($\neg\Diamond$)/*You could not do it, couldn't you?* ($\Diamond\neg$)); contraction (*You couldn't do it* ($\neg\Diamond$ /* $\Diamond\neg$)) and, crucially the distribution of gaps:

(2) (a) Robin could do that, but you could not __. ($\neg\Diamond$)

(b) *Robin could do that, and you could not __. ($\Diamond\neg$)

As argued at length in Bouma, Malouf & Sag (2001) and Kim & Sag (2002), dependents of a head may take the form of gaps in ellipsis or extraction constructions, but heads themselves cannot. In the structure [_{VP} *could* [_{VP} *not* [_{VP} α]]], this condition on gaps entails that α must be overt; hence the status of (2b). But because only the negation structure in (1c) is available to nonfinite auxiliaries, it follows that in such structures, *not* can never precede a gap. Thus we have *You would do that, but I would not* vs. **You would have done that, but I would have not*. And from these straightforward patterns, Huddleston's *should not/to not* data follow immediately on the assumption that *to* is, as claimed, an invariably nonfinite auxiliary: [_S I [_{VP} *decided* [_{VP} *not* [_{VP} [_V *to*] [_{VP} \emptyset]]]]] is a legal ellipsis, since the ellipsed VP is a complement of the head *to*, but in [_S I [_{VP} [_V *decided*] [_{VP} [_V *to*] [_{VP} *not* [_{VP} \emptyset]]]]], the VP head of the larger VP is ellipsed, and hence the structure is not legal.

Interestingly, the discussion of negation in *CGEL* appears to assume precisely the *not-as-complement/not-as-adjunct* distinction which is made structurally explicit in (1) above. Thus, Pullum & Huddleston (2002: 804) cite the examples given here in (3) (underlining in the original):

(3) (a) They must not read it.

(b) You can not answer their letters]: you're not legally required to respond.

These examples are followed by the observation that

the meaning of the first clause in [(3b)] is 'you are permitted not to answer their letters', with *can* thus having scope over *not*. In this use, the *not* will

characteristically be stressed and prosodically associated with *answer* rather than *can* by means of a very slight break separating it from the unstressed *can*. The fact that the modal has scope over *not* makes this semantically comparable to [(3b)], but syntactically it differs in that it has secondary negation rather than the primary negation of [(3a)]. This is evident from the fact that the reversed polarity tag for the *can* clause is *can't you?* The meaning is quite different from *You can't/cannot answer their letters*, which has primary negation in the *can* clause, and where the negative has scope over the modal ("It is not possible or permitted for you to answer their letters").

In [(3b)], therefore – unlike [(3a)] – THE SYNTAX MATCHES THE SEMANTICS, WITH THE *NOT* LOCATED IN THE SUBORDINATE, NON-FINITE CLAUSE.

(Pullum & Huddleston 2002, 805–806; emphasis added)

The analysis presented in this section is thus fully compatible with the position taken in *CGEL* itself.

2.2 *More on ellipsis and stress*

Another issue raised in Huddleston's critique is the contrast between *Not to* *would be a mistake* and **To* *would be a mistake* – a pattern *to* shares with *have* and *be*, as chronicled in some detail in Zwicky & Levin (1980), where the following data are exhibited:

- (4) I didn't see the exhibit last time, but this time I'm $\left\{ \begin{array}{l} \text{likely to} \\ \text{*likely tó} \end{array} \right\}$.
- (5) I don't think you'll have anyone want to take early exams.
For anyone $\left\{ \begin{array}{l} \text{to ásk to} \\ \text{*to ask tó} \end{array} \right\}$ is most unlikely.
- (6) Tony would have preferred not to sleep on a wood pillow.
However, he's been $\left\{ \begin{array}{l} \text{persuáded to} \\ \text{*persuáded tó} \end{array} \right\}$ by his friends.
- (7) I'm sure you didn't enjoy my first piano recital. $\left\{ \begin{array}{l} \text{Tó have} \\ \text{*To háve} \end{array} \right\}$ would have been extraordinary.
- (8) I wouldn't be upset not to be chosen. But, on the other hand, I wouldn't be upset $\left\{ \begin{array}{l} \text{tó be} \\ \text{*to bé} \end{array} \right\}$.

As Zwicky & Levin note, this pattern affects only *to*, *have* and *be*. Pullum offers their observations as an additional argument in favor of auxiliary *to*; Huddleston counters that this pattern does not necessarily implicate membership in a natural class comprising these three, except in a sense which has nothing to do with auxiliary verb status: 'the stress facts are expressible in a different way: we can say that it is strongly preferred for a stranded form that is stressed to bear tense' (Huddleston 2002a: 1186). But this formulation is

incorrect, as manifest in the data adduced by Zwicky & Levin. In the first place, as they note,

stressed infinitival *have*, *be* and *to* are fine when a following gap has a different source – *Wh* movement in (18) and (19), Topicalization in (20) and (21) ...:

(18) I've made some pot roast, or I can get you some shrimp. What are you going to háve?

(19) At first you said you were going into the Marines; now you're planning to go to theological school. What do you want to bé when you grow up?

(20) I don't have many clothes, but that suit I want to háve.

(21) I'm a competent researcher, but a good teacher I could never bé.

...

(32) We must do some of the exercises. Which shall we dó?

(Zwicky & Levin 1980: 634, 636)

The stranded items here are both stressed and tenseless, but their well-formed status seems uncontroversial. Furthermore, as Zwicky & Levin observe, there are many examples of stressed forms in other elliptical constructions which do not bear tense, but are still unexceptionable, e.g. *Everyone thinks Millie will pass the exam, but I don't even think she'll try, I asked Norman why he was sobbing, but he wouldn't say*.

Huddleston's alternative formulation of the relevant condition thus appears factually incorrect: 'stressed items that are stranded' do not, in general, demand tense. Zwicky & Levin's original formulation – 'the offending configuration in our examples is the following: a contrastively stressed nonfinite verbal (infinitoid or participle) followed by a gap created by V[er]bP[h]raseD[ele]tion' (636) – is, in contrast, empirically unexceptionable. It is important to emphasize that the constraint involves not just any 'items' which are 'stranded'; it is confined to the 'infinitoids' – *have*, *be* and *to*, along with the participles *done/doing*. Pullum's invocation of the discussion in Zwicky & Levin (1980) on behalf of auxiliary *to* therefore constitutes a valid and persuasive supporting argument.

2.3 *The argument from semantic emptiness*

Huddleston comments, in connection with treatment of infinitival *to* as a defective auxiliary, that

the case for *to* being a VP subordinator is stronger. *To* has no meaning independently of the semantic properties of the infinitival complement construction as a whole. It functions with respect to the VP *lend him the money* in much the same way as *whether* functions in *whether she ever lent him the money*, or *that* in *that she lent him the money*. It would seem both syntactically and semantically appropriate to place *to* in the same category as *whether* and *that*, the category of subordinators.

(Huddleston 2002a: 1185)

This argument is unconvincing, in view of the fact that the auxiliaries *do* and copula *be* are semantically parasitic on the denotation of their respective complements. Indeed, Huddleston himself appears to hold precisely the same view of auxiliary *do* as the sources cited: ‘*do* ... is a semantically empty, or **dummy** auxiliary verb introduced to permit the formation of negative, inverted and emphatic constructions whose canonical counterpart contains no semantically contentful auxiliary verb’ (Huddleston 2002b: 93; bold in original); elsewhere he notes that copula *be* ‘in some cases ... has little semantic content’ (Huddleston 2002c: 218). Semantic parasitism is evidently not restricted to ‘subordinators’ and thus, in itself, has no weight in deciding between auxiliary and complementizer status for some linguistic form.

2.4 *Limitation to nonroot constituents*

Huddleston’s next argument warrants quoting in full:

[T]here are no counterexamples in English to this very broad generalisation: **all verbs can occur as head of a main clause**. Even the highly anomalous verb *beware*, which has no inflected forms at all, occurs in main clauses like *Beware the Jabberwock*. If admitted as a meaningless and defective auxiliary verb, the item *to* would be the unique exception to a principle which holds for all of English and, as far as we know, for all languages, because it can only appear in non-elliptical sentences when some other verb is superordinate to it.

(Huddleston 2002a: 1186; emphasis in original)

The critical caveat here is, again, that only FINITE forms of verbs can head main clauses, and once again, we note that Pullum has already addressed precisely these points.

One might think that all the characteristic behavioral properties of auxiliary verbs furnish arguments that *to* does not belong in this class. But in fact things only retain this appearance as long as we overlook the distinction between finite and nonfinite (tensed and nontensed) verbs. Once that distinction is made, a simple observation essentially clears up all the peculiarity of *to* at a stroke: *to* lacks the tensed and participial parts of the verbal paradigm, and always appears in its base form, IN BASE FORM CONTEXTS. (Pullum 1982: 205; emphasis added)

Since base form contexts for verbs across the board exclude head position in root clauses, it would appear that again Huddleston’s objection was satisfactorily refuted two decades before *CGEL* appeared in print.

To add any force to Huddleston’s argument, it would be necessary to establish that an invariably nonfinite verb somehow contradicts some broad generalization. Such a premise would be quite difficult to establish, given the peculiarities of the English auxiliaries, among other verbs, as noted in

Pullum (1982: 206), who gives a number of examples, e.g. invariably past (participial) *wrought*. Modal auxiliaries have EXCLUSIVELY finite forms – a property which, as first observed in McCawley (1971), straightforwardly yields the invariably leftmost position in any string of auxiliaries in which they occur. Another interesting case, originally noted in a related connection in Pullum (1982: 206), is the frozen form *use(d)*, which shows residual auxiliary properties for some speakers, and which can only occur in the scope of a semantically past tense operator: *I use*(d) to ski a lot/Did you ever use(%d) to ski very much?* Or again: auxiliary *need*, which contrasts with the *need* selecting an infinitival complement in several ways, is morphosyntactically invariant, not only having no nonfinite (including gerundive) form, but, for many if not most speakers, no past tense form either: *This year, I won't do that when (I'm) ordered to, and I'll get in trouble/Last year, I wouldn't do that when (I was) ordered to, and I got in trouble* vs. *This year, you needn't do that when (you're) ordered to/Last year, you needn't do that when (you were) ordered to*. The invariant form of modal *need* (in marked contrast to the raising verb which selects an infinitival VP complement) and its semantic restriction to nonpast finite contexts are unique in English.² How, in view of such examples, would an inherently nonfinite auxiliary represent anything particularly implausible?

2.5 *Alleged vs. real optionality*

Huddleston (2002a) lays particular stress on the supposedly significant degree of optionality, compared with uncontroversial heads, which *to* displays in its distribution:

The argument that [*to*] is not a head is that under certain conditions it is omissible without any change in meaning or grammatical construction type. One such case is [(9)]:

(9) [(a)] All I did was to ask a question. [(b)] All I did was ask a question.

[2] A *JL* referee suggests that in British English the appearance of *need* under past tense in succession-of-tenses contexts is occasionally acceptable. Whether or not this is generally true is beside the point; the fact is that in North America, examples such as **I didn't think you need do that after you were told that you didn't have to*, or *??I thought/believed that you needn't do that* (as vs. *I thought/believed that you didn't need to do that*) are markedly anomalous, and reinforce the point that auxiliaries as a class are characteristically idiosyncratic in their inflectional possibilities. It does seem true, as the same referee suggests, that 'verbs of saying', e.g. *I told him he need not do that even though he had been ordered to* are markedly better, but it seems hardly accidental that such verbs have an inherent quotative potential which ameliorates such examples. This effect is hardly surprising in the case of *need*, since the same pattern can be observed in connection with verbs of saying vis-à-vis morphologically nonpast modals, e.g. the contrast many speakers find between *?I told him that I can make special arrangements* vs. *??*I believed that I can make special arrangements*, where coercion of the nonpast form to accommodate a succession-of-tenses interpretation is unproblematic in a verb-of-saying context, but quite aberrant when the higher verb is *believed, imagined, etc.*

In this respect *to* is like the finite subordinator *that* (though the latter is of course very much more freely omissible). It is not at all like heads, which never seem to be freely and optionally omissible in this way without a change of construction.

(Huddleston 2002a: 1186)

On the contrary, across its whole range of distribution, *to* manifests a systematic indispensability. Huddleston's sole class of contexts attesting to the putatively free omissibility of *to*, the pseudocleft-like construction illustrated in (9), is anything but representative about the data in (9), as can be readily seen by changing the tense from past to nonpast: *All you do is (*to) ask the question*, in which *to* must not appear. Conversely, when the verb changes from *do* to something less notably idiosyncratic in its possibilities, infinitival *to* cannot be omitted: *All I want/'m hoping for/ask is *(to) be given a chance to eat a steak*. It thus appears that even within the empirical domain of the one construction type which Huddleston invokes, the *to* omissibility facts are exactly the opposite of what he claims. With the exception of past tense nonauxiliary *did*, the *all* pseudocleft consistently resists omission of *to* from the postcopular 'presentational' component.³ A brief overview of *what* pseudocleft constructions in which infinitival *to* appears confirms that its lack of free omissibility in the *all* pseudoclefts is the rule, not the exception.

- (10) (a) What I did was (??*to*) sign the letter. (standard pseudocleft)⁴
 (b) I prefer/hope/intend/aspire/tried/expect ... *(*to*) read a book.
 (infinitival complementation)
 (c) I chose a book *(*to*) read on the train. (purpose clause)
 (d) I mentioned the topic (in order) *(*to*) annoy Terry.
 (purpose adjunct)
 (e) Robin is easy *(*to*) please. (easy missing object construction)
 (f) It's easy *(*to*) please Robin.

In infinitival relatives and interrogatives, a variety of other kind of missing object constructions apart from *easy* examples, and many other structural families in English, *to* is as resistant to omission as in the examples given.

[3] Yet another bizarre property of the cases that Huddleston invokes here is that, as Bob Borsley has observed (p.c.), even where *to* appears in pseudocleft focal position, it does not appear in corresponding simple sentences, as in e.g. *All I did was to ask a question* vs. *I did (not) (*to) ask a question*. Such an anomalous contrast between pseudocleft and canonical clausal patterns underscores the extremely peculiar, idiosyncratic properties of these particular pseudoclefts, and the difficulty of concluding very much at all on the basis of their behavior.

[4] A *JL* referee argues that examples such as *One of the things I will do is (to) start a discussion* should count as a second example, besides Huddleston's, in which *to* is 'readily omissible'. I myself find that examples like *??One of the things I will do is to yell at Leslie/to eat a steak/to be better behaved* are all marginal, verging on (and possibly striding into) complete unacceptability, and informants queried on this point uniformly evince discomfort with such examples to varying degrees. Such examples, therefore, hardly constitute support for Huddleston's specific claim here.

In contrast, the clausal complementizer *that*, supposedly strongly parallel to *to*, reflects a very different pattern of optionality. We find, for a huge range of verbs, including *believe*, *insist*, *hope*, *pray*, *imagine* and *argue*, that *that*-clausal complements alternate freely with their *that*-less counterparts. Similarly, while extraposed finite clauses are much more common with *that* than without, a simple Google search easily turned up cases of the latter (e.g. *surprised me you didn't find any designer yet*) associated with a wide variety of heads, including *worry*, *amuse*, *concern*, *bother* and *offend*, e.g. *It surprised me/worried/amused/concerned me (that) everyone was so hostile to the idea*. The contrast also holds between nonfinite and finite adjectival complements: *Robin was eager/reluctant/anxious/hesitant *(to) cooperate with the authorities* vs. *I'm worried/scared/anxious/hopeful (that) she may do something reckless*.

All in all, it seems fair to say that Huddleston's attempt – on the basis of the sole example (9) – to defend the parallelism of *that* and *to* misses the mark, and invites comparison with a suggestion that data such as *Robin is (supposed) to do this* support rejection of *supposed* as the head of the phrase *supposed to do this*, on the grounds that since *supposed* is clearly omissible, it is therefore unheadlike in its behavior. The one relevant point which emerges from this whole discussion is that *to* does share, with lexical heads – and indeed, most complementizers – a resistance to being freely omitted in the great majority of cases. These considerations make it clear that the whole issue of omissibility in connection with *to* must be taken out of play in assessing Huddleston's arguments.

3. WHY *TO* IS AN AUXILIARY, NOT A 'SUBORDINATOR'

I have argued above that, pace Huddleston (2002a), there are no trade-off costs at all in taking *to* to be an auxiliary as the explanation for its support of VP ellipsis. Beyond ellipsis, however, there is still stronger reason to take *to* to be the auxiliary head of a VP.

3.1 *To is a head*

The extraction phenomenon exhibited in (11) has been little studied until quite recently.

(11) (a) Who knows, if you get your own place (which you should) and just go about living life, he may miss you enough and realize his own independence and move out too.

(<http://uk.answers.yahoo.com/question/index?qid=2009080523084IAAKnDth>)

(b) I still have 12 days to return it, which I might if the signal problem still exists, but I don't want to.

(http://news.cnet.com/8301-17938_105-10269446-1.html)

- (c) I took a few shots beforehand so I would know that it worked, and that I could use my iPhoto to download pictures (which I could if I treated the camera as a thumb drive).
 (<http://www.amazon.com/Vivitar-Vivicam-Digital-Camera-Underwater/product-reviews/Boo2BHG4oU>)

Such examples are instances of what Arnold & Borsley (2010) label auxiliary-stranding relative clauses (ASRCs). The authors observe that the possibility exhibited in examples of the sort illustrated in (11) appears to be confined to VP complements of auxiliaries (e.g. **In that pub, people [drink only real ale]_i, which we should let/make/have Robin ____i for his own good*), and present persuasive evidence that the *wh*-filler in such ASRC cases is not in fact a pro-VP. They note, for example, that VPs cannot normally be fronted from post-auxiliary position to form relative clauses such as (12a–b), and that this cannot be attributed to a general failure of a *wh*-feature to appear on the VPs (e.g. (12c)):

- (12) (a) *Robin could only find peanuts in the cupboard, eat which she must never.
 (b) *Robin said she would [invite Leslie to the party]_j, to which_i was unthinkable to me.
 (c) The elegant parties_i, to be invited to one of which_i was a privilege, had usually been held at Delmonico's.

It would therefore be a priori unlikely for the tokens of *which* in (11) to belong to the VP category otherwise barred from relative clause 'pivot' position when linked to a post-auxiliary gap site. Note also the contrast between *I promised I would (aggressively) pursue this matter, and aggressively pursue this matter I definitely will* and *If I pursue this matter, (*aggressively) which I will, the opposition will be very sorry*, showing that even though VPs of the form [_{VP} Adv VP] can be fronted, ASRC *which* (in contrast to e.g. *do so*) cannot support an adverbial modifier. For these and several other reasons, Arnold & Borsley conclude that the somewhat peculiar *which* relative pro-forms in ASRCs are indeed NPs, and also fillers linked exclusively to gaps in the complement structure of auxiliaries – accounting for their divergent behavior with respect to the extraction pattern of ordinary VPs dominating *wh*-elements, and entailing, as they argue, a filler/gap mismatch analysis.

The restriction of ASRCs to auxiliary gap sites makes this class of non-restrictive relative clauses a diagnostic for auxiliary status – a position actually adopted in *CGEL* itself, which notes that this 'supplementary relative construction ... strands auxiliary verbs' (Stirling & Huddleston 2002: 1523). It is therefore highly suggestive that, unlike 'subordinator'-marked phrases (but just like overtly auxiliary-headed VPs), the bare-form sister VPs which normally follow infinitival *to* front easily, both in topicalization, as in (13), and in ASRC phenomena, as in (14).

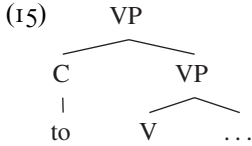
- (13) (a) He wants me to lend him the money, so lend him the money I have to ____.
 (given as well-formed in Huddleston 2002a: 1183)
- (b) I now have the evidence to enable me to challenge all those involved, and challenge them I intend to.
 (<http://menz.org.nz/cosa/horror-stories/>, Peter's story, from December 1994)
- (14) (a) If I return to Salzburg, which I intend to in the near future, I will do it on my own or with a friend.
 (http://www.igougo.com/journal-j16299-Salzburg-The_Birthplace_of_Mozart.html#ReviewID:1230905)
- (b) Lately I've been feeling kind of melancholy that I've never been with another girl, and if I marry her (which I want to, eventually) I never will, and I feel I'm missing out.
 (http://www.scarleteen.com/cgi-bin/%20forum/ultimatebb.cgi?ubb=get_topic;f=3;t=010083;p=1)

Example (14b) is particularly important because it shows that data such as (14a) cannot be analyzed as some kind of quasi-slucing phenomenon corresponding to *If I return to Salzburg, which_i I intend to ~~return to~~ ___i*, for such an analysis plainly cannot work for (14b), corresponding as it would to the ill-formed *If I marry her_i (which I want to ~~marry~~ ___i)*, in view of the obvious clash of animacy/humanness specifications between *her* on the one hand and *which* on the other. So far as the auxiliary *to* hypothesis is concerned, the data given above in connection with *make/let/have* is critically important, because it is representative of a body of evidence that the ASRC pattern is restricted specifically to auxiliaries.

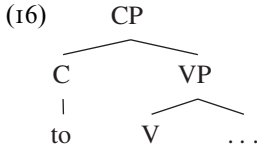
A possible way out is that, since the ASRC in effect piggybacks on ordinary ellipsis, and since Huddleston has already conceded that VP ellipsis following infinitival *to* requires an ad hoc proviso, we might claim that it is reasonable to EXPECT the ASRC phenomenon to extend *to* to as well, even if it were not an auxiliary. Crucially, however, ASRC is not an epiphenomenon of generic ellipsis, but rather an UNPREDICTABLE effect, requiring a special condition on the valence specifications of auxiliaries. This condition, given in detail in Arnold & Borsley (2010), corresponds to the mismatch between the filler on the one hand and the overtly realized verb-type categories otherwise selected, without exception, by all auxiliaries on the other. And on Huddleston's view of infinitival structure, *to* must not be a head (since if it were, it would be the head of a VP, hence a verb, not a complementizer); hence it lacks valence specifications – again requiring a completely coincidental convergence between *to* on the one hand and the auxiliaries on the other.

Suppose instead that subordinators were indeed heads; then auxiliaries and *to* might be parallel in the right way. But Huddleston's own arguments

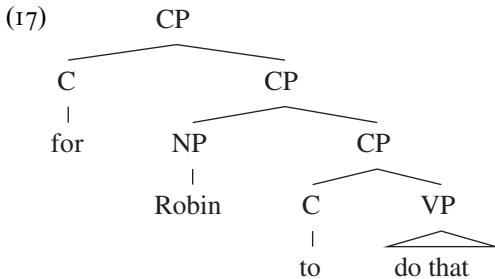
for *to* as a complementizer rest crucially on it NOT being a head. Huddleston, as we have already noted, takes the structure of infinitival phrases to be, in essence, like that given here in (15):



If phrasal category is projected from the head daughter, as assumed throughout in *CGEL*, then the above structure cannot be correct, and Huddleston's analysis would instead have to be (16).



But this would then commit Huddleston to an analysis in which infinitival clauses such as *for Robin to do that* would have the structure in (17) – directly contradicting the structure for infinitivals he explicitly assumes (and which he would therefore be expected to reject, and rightly so as I argue directly).

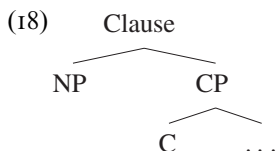


3.2 *Infinitivals are VPs*

Nonetheless, it is conceivable that an advocate of an analysis in which *to* is a complementizer/'subordinator' might take a harder position than Huddleston: if (17) is a necessary consequence of identifying *to* with C, then so be it. But there are several excellent reasons to reject this approach.

3.2.1 *XP VP is a canonical clause structure*

All other things being equal, we would prefer to minimize the introduction of bizarre or anomalous structures in the absence of compelling reasons. There appears no independent motivation whatever for assuming the existence of a structure of the form (18), which would be part of the putative (17) above.



Such structures do not constitute English clauses (e.g. **The twins that Robin is a spy, Terry if your cousin sends me a message*), so that there is no motivation for positing the existence of structures such as those in (18). Conversely, there is ample warrant for taking XP VP strings to be, roughly speaking, the canonical form of English clauses, so that Huddleston's assumption that (*for*) *Robin to contact us* represents a (C)[NP VP] sequence has to be taken as the null hypothesis.

3.2.2 Manner adverbials modify VPs, but not CPs

Manner adverbial are particularly averse to modification of non-VP constituents, apart from certain APs. We have, e.g. *I doubt (*slowly) that Robin solved the problem/*(Slowly) that Robin solved the problem, I doubt, What I wonder is (*noisily) whether/if Robin solved that problem on her own, (*Erratically) for Robin to be a spy would bother me*, which are only well-formed if the manner adverb option is suppressed. This pattern is in marked contrast to what is apparent in *Robin graciously/happily/quietly accepted the outcome, What I can't imagine is (Robin) graciously/happily/quietly accepting the outcome, ... and graciously/happily/quietly accepted the outcome Robin indeed has, I expect Robin graciously/happily/quietly to accept the outcome*, etc. If *to* infinitival phrases are CPs, we expect the former pattern of well-formedness, while their status as VP should correspond to the latter pattern. And indeed a Google search on the template [Pronoun *expect us* Adverb *to*], yielded many hits of this form, a random sample of which proved in every case to be idiomatic English text, e.g. *How do these young men expect us happily to watch Camilla at a memorial service for Diana?, It well illustrates how low we must have sunk in when they expect us quietly to undergo such treatment, We cannot possibly expect them happily to fight on our behalf, if we do not look after their families who are left behind, My parents must have had reservations, if never spoken, and I suspect even now that they expect me eventually to move on to a career more in line with my expensive education, and I want eventually to leave here.*

3.2.3 *To* + VPs are auxiliary valents, CPs are not

With the solitary exception of the strange *would rather (that) S* idiom, which is fixed in its lexical content and hardly more relevant than the relic form illustrated by *Would that he were here!*, and the copula *be*, whose

complements include all types, there are three kinds of auxiliary valents: *not*, one or another subtype of uncontroversial VP, and infinitival phrases:

- (19) (a) Robin has (not) finished the paper.
 (b) Leslie ought to finish the paper.
 (c) NP V $\left\{ \begin{array}{l} \text{that} \\ \text{if} \\ \text{whether} \end{array} \right\}$ Robin is a spy.

There is no auxiliary apart from *be* which can appear in (19c), and the appearance of both infinitivals and full clauses in such copula contexts (e.g. *The question is whether Robin will cooperate*) is irrelevant to its categorial status since, as noted, *be* combines with XP for ALL major categories X (*The question is moot/a troubling one/out of order*). All other canonical auxiliaries combine productively with VPs exclusively, and the fact that *ought*, modal *be* and *used* all take an infinitival valent is prima facie evidence that the latter warrants characterization as a VP.

3.2.4 Nonextraction of the to VP

Clearly ‘subordinator’-marked phrases front readily, e.g. *That Robin had in fact been a spy, I simply could not accept* __, *Whether or not Robin was a spy I had long since stopped wondering* __, and so on. Unlike these, but precisely like most overtly auxiliary-headed VPs, *to* VPs themselves do not front: **To do that, I intend/*To get her old job back, Robin really wants/*To convince the committee to change their minds, we desperately hope*.⁵ Compare these data with (20):

- (20) (a) * ... and have worried about this I should __.
 (b) * ... and be asleep already she might.
 (c) *? ... and been talking casually she had.

These data reflect my judgments and the overwhelming majority of English native speakers who I have queried. No such problem confronts any claim that *that/whether/if*+S sequences are constituents, as the cases cited earlier make clear. What the data adduced in the previous paragraph show is that the status of fronted *to*+VP sequences is quite comparable to that of the fronted auxiliary-headed VPs in (20), and contrasts markedly with that of the fronted ‘subordinator’-marked constituents. On the assumption that *to* is an auxiliary verb, this behavior is unremarkable; on Huddleston’s analysis, in contrast, it becomes yet another anomaly in the behavior of *to*-‘subordinated’ constituents.

[5] Huddleston (1980) does cite a preposed *to* infinitival, but I have never been able to find an example of one on the web, nor found a speaker who accepts them.

| Phenomenon | Auxiliary <i>to</i> | 'Subordinator' <i>to</i> |
|---|---------------------|--------------------------|
| <i>To</i> negation/ellipsis data | ✓ | ?✓ |
| Semantic vacuity | – | – |
| Exclusion from root clause | ✓ | ?✓ |
| Free omissibility of <i>to</i> | ✓ | fail |
| Support for co-constituent extraction | ✓ | fail |
| Nonextractability of <i>to</i> and co-constituent | ✓ | fail |
| Complementizer stacking | ✓ | fail |

Table 1
Comparison of competing analyses

3.3 Implications of *whether/to* stacking

Finally – and again unlike 'subordinators' – *to* can itself be directly preceded by a 'subordinator':

- (21) (a) *I wonder if that Robin is a spy.
 (b) *Who knows whether that Robin is a spy?
 (c) *Can you tell me if whether Robin is a spy?
 (d) *I can't decide whether for me to invite her.
- (22) Robin can't decide whether to invite her.

Given the association of *that* and *if* with finite clauses, *for* with infinitive clauses and *whether* both with finite and nonfinite constituents, we might expect at least some of the items in (21) to be well-formed, but in fact no such cases of 'subordinator' doubling are permitted. All approaches to the syntax of English, and a variety of other languages with complementizer-like elements, clearly contain some mechanism for blocking sequences comparable to the ill-formed English **I believe that that Robin is a spy*, **I didn't know that if Robin were a spy*, or the examples in (21). It is particularly striking, then, that the 'subordinator' *whether* can appear stacked above a constituent which is itself a putative subordinator, in contrast to the relentless suppression of such a possibility in the full pattern of data of which (21) is a representative sample. *For* appears to be specified as a full clause marker, hence the prohibition on *for to* in English (though there seems to be some variation here; e.g. *i long for to see him again* attested by [viscoti_cold](http://romantics-unite.livejournal.com/romantics_unite) at http://romantics-unite.livejournal.com/romantics_unite); *that* and *if* both require finite clausal heads.

4. THE EVIDENCE: A SUMMARY

Table 1 summarizes the results of the preceding discussion. The first column identifies the diagnostic grammatical patterns reviewed above; the second,

the predictions of the nonfinite auxiliary hypothesis (against the background, it must be emphasized of the correct structural characterization of that pattern's syntactic origins); the third, the predictions of the 'subordinator' analysis of *to*. The symbol \checkmark indicates a correct prediction, the combined symbol $?\checkmark$ marks a prediction which is correct for *to* but leaves parallel data involving the canonical auxiliaries unaccounted for (again, against the background of the correct formulation of the relevant principle), a dash – indicates that the property in question is irreducibly stipulative via lexical specification, and 'fail' notates an incorrect prediction. Based on these results, there seems in principle no advantage, on any count, to assign *to* complementizer status, and every reason to take it to be a nonfinite auxiliary.

The magisterial scope and high level of sophisticated linguistic reasoning displayed in *CGEL* represent a substantial, even spectacular improvement over the kind of comprehensive traditional descriptive grammars for English which preceded it. *The Cambridge Grammar of the English Language* goes far to prove, by demonstration, that the discipline of descriptive grammar is useful and insightful to the extent that it builds upon the methodological platform of what might be called 'best practices' in theoretically-informed syntactic and morphological analysis. In the case of infinitival *to*, however, these best practices do not appear to me to have been carried out to the requisite level; the kind of considerations raised above have been given short shrift, or neglected altogether. Certainly there is room for argument – very few questions in the descriptive analysis of even as well-studied a language as English can be said to have been answered definitively – but I believe the preceding discussion vindicates Pullum's (1982) original conclusions.

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