

The structural deficiency of verbal pro-forms*

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This squib discusses two kinds of verbal pro-forms in British English, *do* and *do so*. Examples of these forms are given in (1).

(1) British English

a. Terry will eat pasta and Ines will **do**, too.

[With second sentence interpreted as, ‘Ines will eat pasta.’]

b. Terry will eat pasta and Ines will **do so**, too.

[With second sentence interpreted as, ‘Ines will eat pasta.’]

In the spirit of Cardinaletti and Starke’s (1999) typology of strong, weak and clitic pronouns, this squib argues that *do* is a structurally deficient relative of *do so*. In particular, while both of these pro-forms are headed by *v*, *do* but not *do so*, lacks a VP complement. This approach is shown to account for certain prosodic and semantic differences between these forms. The analysis, if correct, suggests that many of Cardinaletti and Starke’s findings for pro-forms in the nominal domain may extend to pro-forms in verbal shells, and also lends support to Cardinaletti and Starke’s approach to variation in the behavior of different pronoun classes as determined by relative differences in functional richness.

1. British *do* as a verbal pro-form

As shown in (1), British English exhibits variation in “VP-ellipsis” constructions. Other varieties of English, including American English, lack the option in (1a).

(2) American English

Will she eat? *She should do. [on any reading]

In addition, British English, like other varieties of English, allows true elisions as in (3).

(3) British English

Terry will eat pasta and Ines will, too.

[With second sentence interpreted as, ‘Ines will eat pasta.’]

Baltin (2004, 2005) suggests that the *do* of (1a) is a pro-form. In particular, he points out that, from the perspective of sentences such as (1a) as true elisions, it is mysterious why elided constituents under *do* cannot contain internal structure. *Wh*-traces, for example are impossible in the VP “covered up” by *do*, and inverse scope is likewise unavailable out of these constituents.¹

(4) (Baltin 2004)

*Although I don’t know which book Fred will read, I do know which book Tom will do.

(5) (Baltin 2004)

Some man will read every book and some woman will do too.

[Only interpretable with *some* scoping over *every* in both clauses.]

Similar evidence to this effect comes from the fact that *do* is unavailable with ACD, comparative deletions and pseudo-gapping as illustrated in (6)-(8).

(6) ACD

* Bart can eat anything that Homer can do.

(7) Comparative deletions

* Bart can eat more than Homer can do.

(8) Pseudo-gapping.

*Although she won't eat pasta she will do pizza.

Crucially, these properties of British *do* are shared by *do so* (in both British and American English), which is often taken to be a pro-form (Ross 1970, Johnson 2001, Stroik 2001, Horvath and Sioni 2003).

(9) *wh*-extraction

*Although I don't know which book Fred will read, I do know which book Tom will do so.

(10) inverse scope

Some man will read every book and some woman will do so too.

[Only interpretable with *some* scoping over *every* in both clauses.]

(11) ACD

*Bart can eat anything that Homer can do so.

(12) Comparative deletions

* Bart can eat more than Homer can do so.

(13) Pseudo-gapping

*Although she won't eat pasta she will do so pizza.

2. *do* vs. *do so*

In view these data, let us follow Baltin (2005) in assuming that British *do*—like *do so*—is a verbal pro-form. A question that arises under this assumption, then, is whether the phonetic difference between these two forms correlates with any structural difference. I will argue that in fact it does, as suggested by the following differences between these forms.

First, in *do so* constructions, stress may fall on *do/did/does so* as in (14).

(14) Q: Has Ines eaten?

A: I don't know, but she should DO so.

By contrast, *do* in sentences such as (1a) can never be stressed. In (15), for instance—a *do* example parallel to (14)—stress cannot fall on *do*. Rather, it obligatorily falls on the preceding modal.

(15) Q: Has Ines eaten?

A: I don't know, but she SHOULD do./*I don't know, but she should DO.

Second, British *do*, unlike *do so*, cannot be separated from the preceding modal by parentheticals or epistemic adverbs such as *obviously*.²

(16) I don't know if she'll come, but she should obviously do so.

(17) *I don't know if she'll come, but she should obviously do.

(18) I don't know if she'll come, but she should, it seems, do so.

(19) *I don't know if she'll come, but she should, it seems, do.

Third, British *do*, unlike *do so* tends to be poor under infinitival *to*, as illustrated by the contrast between (20) and (21).³

(20) ??I don't know if she'll come but she needs to do.

(21) I don't know if she'll come but she needs to do so.

Fourth and finally, British *do*, unlike *do so* is compatible with non-agentive antecedents.

(22) I don't know if she suffers from arthritis; she might do.

(23) *I don't know if she suffers from arthritis; she might do so.

(24) I don't know if it'll rain today but it might do.

(25) *I don't know if it'll rain today but it might do so.

3. The structural deficiency of *do*

Let us consider each of these differences in turn. First, the fact that British *do*, unlike *do so*, cannot be stressed or separated from the preceding modal by parentheticals and epistemic adverbs—as illustrated in (15)-(17)—suggests that it is a clitic. In addition, an approach to *do* as a clitic suggests an account of the fact that *do*, unlike *do so*, is poor below infinitival *to*. In particular, it seems plausible to relate the unavailability of *do* below *to* to the fact that *to*, unlike other modals, does not admit cliticization of *not*.

(26) She tried not to go.

(27) She tried to not go.

(28) *She tried ton't go.

Note, that it is not infinitival embedding *per se* that is incompatible with *do*, since participial *done* is fine in infinitives.

(29) I don't know if she's turned in her paper, but she needs to have done.

In view of these facts, I will assume that *do* is in fact a clitic. An immediate difficulty for this approach, however, is that light-verb *do* in other environments does not seem to be particularly clitic-like. In pseudo-clefts such as (30), for example, *do* may be stressed.

(30) What she DID was eat pasta.

It can also be separated from surrounding material by *obviously*.

(31) What she obviously DID was eat pasta.

(32) What she DID, obviously, was eat pasta.

In these respects, then, light-verb *do* seems to be rather un-clitic-like. Crucially, however, *do* in this guise, like *do so*, is incompatible with non-agentive predicates.

(33) *What she DID, then, was suffer from her illness.

The generalization, then, seems to be that if *do* is not a clitic, then it must be agentive. These facts recall Cardinaletti and Starke's (1999) observation that (prosodically/phonetically) strong pronouns are semantically restricted in ways that weak pronouns are not. In particular, weak pronouns, unlike strong pronouns, may be expletives and have impersonal interpretations and non-human referents. To account for these facts, Cardinaletti and Starke propose that strong pronouns contain an

additional functional layer—CP—lacked by weak pronouns. In the case of strong pronouns, this C head receives default values—e.g. [+human]—which accounts for their more restricted range of interpretations (Cardinaletti and Starke 1999:187-190).

Cardinaletti and Starke further suggest that this structural difference is responsible for the prosodic differences between strong and weak pronouns. In particular, they propose that weak pronouns are prosodically dependent because they are not full CP's and therefore do not constitute a major syntactic constituent.

Following Cardinaletti and Starke, let us assume that *do* is a structurally reduced relative of *do so*. On the standard assumption that light verbs like *do* are merged in *v*, a position above *V*, both *do* and *do so* might be viewed as headed by *v* (Baltin 2005, Stroik 2001). As Baltin (2005) suggests, however, *do* plausibly lacks a VP complement, as in (34). Crucially, the fact that *do* is compatible with non-agentive antecedents suggests that *do* may be a “defective” *v*. I will return to this property of *do*, shortly.

(34) *do*

[_{v/v*} do

The form, *do so*, by contrast, is plausibly richer in structure. Stroik (2001), for example, proposes the structure in (35) for *do so* constructions.

(35) *do so* (Stroik 2001)

[_{v*} do [_{VP} so

Evidence in favor of this proposal comes from pseudo-clefts and *wh*-questions questioning the verb as in (36) and (37). As Stroik (2001) notes, the fact that *what* can range over VPs in such cases suggests that *do* is not a main verb in VP, but rather in a higher position, plausibly *v*.

(36)=(30) What she DID was eat pasta.

(37) Q: What will she do?

A: Eat pasta.⁴

Similar evidence comes from relative clauses of the kind in (38).

(38) (Ross 1970)

Ted left, which he shouldn't have done.

I will adopt from Stroik's paper the idea that *do* and *so* are merged as distinct heads. I will depart from this proposal, however, in taking *so* to be merged not in V, but rather as a nominal complement of V as in (39).

(39) *do so*

$[_{V^*} \text{do } [_{VP} \emptyset [_{NP} \text{so}]]^5$

In particular, the fact that, in other environments, *what* is a nominal *wh*-element suggests that *wh*-questions questioning the verb such as (36) and (37) involve a nominal complement. Additional evidence to this effect comes from the fact that in

some languages, including Basque the *wh*-element in *wh*-questions questioning the verb trigger object agreement on the auxiliary.

(40) Zer egin du Inesek?

What.ABS do-PERF ABS.AUX.ERG Ines-ERG

‘What has Ines done?’

Similarly, as Stroik (2001) notes, *so* can also (more marginally, perhaps) be replaced by *it*.

(41) Q: Should I leave now?

A: Don’t do it.

These facts, then, support a view of *do so*, and *wh*-questions questioning the verb as consisting of a light verb + nominal complement as illustrated in (39). In addition, such a view of *do so* suggests an account of the fact that *do so* is incompatible with non-agentive antecedents. That is, because *do* takes a nominal complement to which it assigns case, it cannot be a “defective” v head, but rather must be “ ϕ -complete” in Chomskyan (2001) terms. By contrast, British *do*, which lacks complement structure, never need assign case and therefore may be defective.

Under this view, then, several differences between weak and strong verbal pro-forms reduce to a single structural difference, namely whether the pro-form in question takes a complement VP. If, as suggested by Cardinaletti and Starke, prosodic weakness is a symptom of lacking a major category, then, the prosodic

weakness of British pro-form *do*, might plausibly be attributed to the fact that *do* lacks a complement VP and/or a nominal complement. By contrast, *do so* and the *do* of pseudo-clefts and *wh*-questions questioning the verb are not clitics because they take a complement VP (itself containing a nominal complement.) Similarly, the fact that *do* but not *do so* is compatible with non-agentive antecedents is plausibly attributable to the fact that the latter contains a case-marked nominal complement and therefore must have a non-defective v.⁶

This proposal, if correct, suggests that Cardinaletti and Starke's basic approach to variation in the behavior of different pronoun classes in terms of differences in their functional makeup might plausibly extend to the lower functional sequence of the clause.

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Notes:

* I am grateful to xx, xx, xx and xx for judgments and/or helpful discussions of the data presented here. All errors are my own.

¹ Baltin (p.c.) notes that this characterization of British *do* as entirely lacking internal structure may be too strong. In particular, he observes the possibility of *do* with raising predicates as in (i).

(i) John might seem to enjoy it and Fred might do, too.

I will not attempt to explain this fact here. Whatever the analysis of such examples, the crucial point, for the purpose of the following discussion will be that *do* behaves like *do so* in crucial respects.

² As xx (p.c.) points out, other adverbs, such as *possibly* more easily intervene between modals and *do*.

(i) I don't know if she'll come, but she might possibly do.

I will set aside the issue of how to account for this difference between *possibly* and *obviously*/parentheticals. What is crucial for the purposes of the present discussion, is that parentheticals and epistemic adverbs, unlike *possibly*, tend to require an intonational break in such cases, which suggests that the relevant distinction is prosodic.

³ Many speakers find that sentences such as (20) improve when followed by additional material.

(i) I don't know if she'll come but she needs to do soon.

I will set aside the question of how to account for the difference between (20) and (i). For the purposes of the present discussion, it will suffice to observe the difference between (20) and (21).

⁴ Speakers typically accept nominal answers to questions like (37)—e.g. *the laundry*—though often find them less than fully cooperative. This suggests that in such cases, *what* preferably ranges over VPs.

⁵ As Horvath and Siloni (2003) note, nothing may intervene between *do* and *so* (cf. Stroik 2001). This suggests the possibility that *so* raises from V to v and encliticizes to *do* in such cases.

⁶ This proposal, if it is on the right track, might plausibly be extended to *do*-support (Richard Kayne p.c., cf. Pollock 1989:420 fn.49). Again, in the spirit of Cardinaletti and Starke's (1999) proposal, one might view the *do/does/did* of *do*-support as an even more deficient relative of *do/do so*. In particular, the *do* of *do*-support is similar to the behaviour of clitics in three ways. First, in constructions in which it appears, it “doubles” its referent in a way comparable to clitic-doubling in Romance. Second, *do*

in *do*-support canonically appears higher in the clause than its referent. This recalls Cardinaletti and Starke's generalization that weaker pronouns and clitics surface higher than stronger relatives. Third and finally, *do*, in its *do*-support guise often allow phonological reductions not available in the case of light verb *do*.

(i) Who'd you see.

(ii) What you did was eat pasta.

(iii) *What you'd was eat pasta.

Whether, in fact, *do*-support might be usefully analyzed as clitic doubling I will leave to further research.