

Some Thoughts on English Modal *Need*

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1.

Isačenko (1974) suggested that Russian lacks a transitive verbal *need* with a nominative argumental subject, as in:

(1) He needs a sister.

because Russian lacks a verb *have* in sentences like:

(2) He has a sister.

That is, Russian has no direct counterpart of either of these.

More specifically, Isačenko takes English *need* to ‘piggyback’ on English *have*, much as in the (later and more general) spirit of Hale and Keyser (1993; 2002) and Noonan (1993), which amounts to saying, as in Harves and Kayne (2012), that (1) should be analyzed as:

(3) ...HAVE need...

with nominal object *need* incorporating to the silent light verb HAVE (capitals will henceforth indicate silence), in some sense of the term ‘incorporation’.¹

The incorporation that underlies (1) is not sensitive to the finiteness or nonfiniteness of HAVE since (1), with verbal *need*, readily has non-finite counterparts:

(4) There will need to be more work done.

(5) He has always needed a sister.

(6) Despite needing a sister,...

2.

On the other hand, finiteness vs. non-finiteness matters (unsurprisingly, at first glance, given general properties of English modals) for what we call modal *need* in English (which is followed by an infinitive without *to* and which has polarity properties):

(7) They needn’t stay.

(8) *They haven’t needed talk to us.

(9) *They couldn’t possibly have needed do that.

(10) *Despite not needing leave, they left.

The question now is why English should have this (apparently lexical) property of allowing *need* to act either like an ordinary verb, as in (1) and (4)-(6), or like a modal, as in (7), where it precedes *n’t*. *Need* also acts like a modal in its lack of subject-verb agreement:

(11) He needs to work harder. (verbal *need*)

vs.

(12) He need(*s)n’t work any harder. (modal *need*)

¹Indirectly relevant here is Mahajan (1994) on the general *have/be* question. On incorporation, cf. Baker (1988).

(13) Need(*s) he really work harder? (modal *need*)

3.

The first idea that I would like to consider is that the modal-like behavior of *need* (which is not complete, as we shall see later on) is dependent on a second incorporation-like step, namely the incorporation of verbal *need* (itself derived from silent verbal HAVE + nominal *need*) to a silent counterpart of modal *would*. That is, (7) might be thought of as containing, at some stage of the derivation, with subsequent raising past *n't*:

(14) ... n't WOULD HAVE need...

This might provide (the beginning of) an account of the fact that in (7) *need* necessarily scopes under *n't*, although we can note that the polarity property of modal *need* dilutes this point.² Worth noting, too, is that from this perspective the limitation of modal *need* to finite contexts could not be a primitive fact about modal *need*, if only because modal *need* itself would not be, given (14), a primitive element at all.³ Rather it would reduce at least in part to a property of modal *would*.

That the overall limitation of modal *need* to finite contexts, as well as its ability to invert in questions and to precede *n't* and to license VP-deletion, is derivative is indirectly supported by the fact that (for me) the participial and gerundial examples of (8)-(10) are more sharply deviant than the corresponding examples with an embedded bare infinitive *need*, which are to me marginally acceptable:⁴

(15) ?In fact, French *ce* itself would need have no gender.

(16) ?You wouldn't need stay any longer than necessary.

(17) ?Nobody would need stay any longer than necessary.

Important here is the contrasting fact that with modals other than *need*, the infinitive form remains for me sharply unacceptable:⁵

(18) *He would(n't) must/can/may...

From the perspective of (14), the fact that modal *need* is followed by an infinitive without *to*:

(19) You needn't (*to) leave so soon.

²That an item should have polarity properties is something that calls for explanation - cf. Kayne (2021) on *long*.

³This would differ in part from (extensions to English of) Cinque (1999; 2006). Cattaneo (2009, chapter 5) suggests that other (Italian) modals are not primitives, either.

⁴Gary Thoms (p.c.) suggests a link to Collins and Singler (2015) on *would might* (not possible in my English). Thinking ahead to section 7, the text examples may contain a silent MUST, despite my English not allowing overt *would must*.

⁵On the status of the sometimes found *shouldn't ought to*, see Kayne (to appear).

That standard English modals are generally limited to finite contexts recalls the limitation, probably in all English, of negative *n't* to finite contexts (leading to a question of learnability). On finiteness here, see Lapointe (1981, 237) and Zwicky & Pullum (1983, 507). This finiteness property of *-n't* is likely related to what one finds in other languages, as noted by Payne (1985, 240); see also Pellicciardi (1977, 174), Haegeman and Zanuttini (1991, 237), and Zanuttini (1996, 192).

is a property of modal *need* that is inherited from modal *would*, as is the lack of subject-verb agreement:

(20) She need(*s)n't leave so soon.

4.

There is a present tense vs. past tense contrast with modal *need* (as noted by Levine (2013)):

(21) They needn't work so hard.

(22) *They neededn't work so hard.

Similarly:

(23) Nobody need stay any longer than necessary.

(24) *Nobody needed stay any longer than necessary.

Strictly speaking, the term 'present tense' as applied to (21), for example, is not quite right, given that:

(25) They needn't have worked so hard.

does not really have the interpretive status of:

(26) ?They don't need to have worked so hard.

but feels closer in interpretation to:

(27) They didn't need to work so hard.

In initial conclusion, then, the presence of modal-like *need* in English is a side-effect of the presence of nominal *need* + the presence of *have/HAVE* + the presence of modal *would/WOULD* (along with the special properties that modals have in English). This initially plausible conclusion will be partially revised below.

5.

Put another way, the presence in English of modal-like *need* is not an irreducible fact about the English lexicon. As in the case of 'ordinary' verbal *need* discussed in section 1 above, significant syntax is involved, as is also true for a number of other seemingly idiosyncratic facts about the lexicon of English, e.g. the fact that English alone, among nearby languages, has a certain kind of *is to*:⁶

(28) You are to return home by midnight.

This is also true for the ultimately non-idiosyncratic fact that causative-like *have*+infinitive is highly specific to English:⁷

(29) We'll have them call you tomorrow.

as well as for English *grand* (in the apparently money-related sense of *thousand*):⁸

⁶Cf. Kayne (2014). Jacqueline Guéron (p.c.) asks if it's an accident of English that it has modal *need*, but no modal *lack* (despite *lack* and *need* having something in common, interpretively speaking). The same question arises for *want*, which has none of the core properties of English modals, e.g.:

i) *He wantn't leave.

ii) *Want he leave now?

I would guess that in neither case are we looking at something accidental, but work needs to be done.

⁷Cf. Kayne (2023).

⁸Cf. Kayne (2012).

(30) That'll cost you ten grand.
and for English *wherewithal*:⁹

(31) They don't have the wherewithal to buy that house.

6.

An alternative to the proposal indicated in (14) would try to relate the existence of modal *need* in English more directly to the existence in (some) English of auxiliary(-like) possessive *have*, as in:

(32) ?We haven't any money.¹⁰

which shares with *need* the ability to precede *n't*. There are, however, (at least) three discrepancies that would count against this alternative. One is that auxiliary(-like) possessive *have* and modal *need* differ sharply with respect to the -s of agreement:

(33) ?He hasn't any money.

vs.

(34) He need(*s)n't see them quite yet.

A second is that they differ with respect to past tense forms:

(35) ?Back then, he hadn't any money.

vs.

(36) *He neededn't work hard.

A third is the following:

(37) ?They haven't any money.

(38) *They needn't any money.

Auxiliary-like possessive *have* is compatible (in certain varieties of English) with a direct object,¹¹ in a way that modal-like *need* is not.

7.

The challenge posed by (37) vs. (38) carries over, in fact, to the proposal made earlier in (14), repeated here:

(39) ... n't WOULD HAVE need...

Since the proposal in (39) rests on the presence of HAVE, it cannot easily account for modal *need* differing from *have* with respect to direct objects.

Let us therefore consider a new (and final) proposal that keeps to the idea that incorporation of nominal *need* to a silent modal is what underlies modal *need*, while having recourse to a different modal, namely *must*/MUST (and eliminating HAVE¹²).

This new alternative brings in archaic:¹³

(40) You must needs do that.

⁹Cf. Kayne (2017).

¹⁰On this type of sentence, acceptable in some varieties of English, note Leonard's (2007) proposal for a silent GOT.

¹¹Cf. Thoms et al. (to appear).

¹²Cf. the fact that Harves and Kayne (2012, sect. 4) consider an analysis of transitive *need* that would rest directly on an "accusative-case-assigning verb of possession", rather than specifically on *have* itself.

¹³Thinking of footnote 6, we might expect that that archaic English did not have:

i) *You must lacks/wants do that.

a current counterpart of which would seem to be:

(41) You must of necessity do that.

or:

(42) You must necessarily do that.

Taking (40) as a clue, this alternative proposal, instead of (39), now has:¹⁴

(43) ...n't MUST need...

with nominal *need* being related to MUST, not as a direct object, but rather in the way that adjunct-like, non-object *necessity* is related to *must* in (41). Incorporation in (43) of this non-object *need* (which may well be preceded by silent OF) to MUST,¹⁵ followed by preposing past *n't*, will yield what we think of as modal *need*.

8.

If (43) is in fact closer to the truth than (39), we need to ask why the language faculty would have turned its back on an initially plausible (39). A possible answer is that the presence in (39) of intervening HAVE would interfere with the incorporation of *need* to WOULD, in a way that would need to be made more precise.¹⁶

9.

Scope facts turn out to be relevant to the proposal in (43), insofar as there is a scope difference between:

(44) You mustn't do that.

and:

(45) You needn't do that.

¹⁴With (i) then arguably related to (ii):

i) *He needn't work so hard.

ii) *He mustn't work so hard back then.

vs.

iii) He didn't have to work so hard back then.

¹⁵As opposed to the incorporation of direct object *need* to *have* in Harves and Kayne (2012), for the case of verbal *need*. (On incorporation of adjunct-like elements, cf. English compounds such as *head-fake*, *need-based*, *backflip* et al.) The extent to which languages other than English might have recourse to incorporation of (their counterpart of) adjunct-like *need* to (their counterpart of) a silent MUST remains to be determined, one relevant question being whether or not the highly specific properties of English modals might facilitate such incorporation.

Stephanie Harves (p.c.) asks whether the deontic vs. epistemic distinction that holds with *must* carries over to *need*. It may, given the contrast:

i) He needn't work so hard.

ii) There needn't be any solution to that equation.

As Jean-Yves Pollock (p.c.) points out, the expectation is that the epistemic MUST that would presumably be (silently) present in (ii) would be compatible with *necessarily*, as does seem to be plausible, given:

iii) There must necessarily/of necessity not be any solution to that equation.

¹⁶Or, as Stephanie Harves (p.c.) suggests, there might be a link to Myers (1984); cf. also Pesetsky (1995).

with *must* appearing to scope over *n't* and *need* appearing to scope under *n't*.¹⁷
However to my ear, there is a change if we add *necessarily* to *must*:

(46) You mustn't necessarily do that.

Especially with stress on *necessarily*, (46) seems to me to pretty much lose the 'must > n't' reading and to pretty much allow 'n't > must', or perhaps better, to allow:

(47) 'n't necessarily > must'

If so, then the higher scope of *n't* in (43)/(45) reduces to the higher scope of *n't* in (46)/(47), assuming that 'n't...need' in (43) acts scopewise parallel to 'n't necessarily' in (46)/(47).¹⁸

10.

The scope effect of *necessarily* just seen also seems relevant to a fact concerning VP-deletion discovered by Levine (2013), who noticed the following surprising instances of unacceptability (among others):

(48) You don't think he need work so hard and I don't think he need *(work so hard), either.

(49) He hardly need *(worry).

Although modal *need* is compatible with VP-deletion in some cases:

(50) You needn't leave so early and he needn't, either.

(51) Need he really?

VP-deletion is not possible in (48) or (49). Yet to my ear, adding *necessarily* after *need* in (48) leads to a degree of improvement, as compared with (48) itself:

(52) ?You don't think he need (necessarily) work so hard and I don't think he need necessarily *(work so hard), either.

and (49) can be somewhat improved if *hardly* is put post-*need*:

(53) He need hardly ??(worry).

The generalization appears to be that modal *need* is to one extent or another compatible with VP-deletion only if it has visibly raised to a modal-like position, as it has past *n't* in (50), past subject *he* in (51), and arguably past pre-VP *necessarily* in (52) and pre-VP *hardly* in (53).¹⁹

Whereas in (48) and (49) *need* has not raised to a modal-like position, perhaps because vacuous movement (of that sort) is prohibited. (That modal-like *need* can fail to raise to a modal position was seen in a different way in (15)-(17).)

The fact that modal *need* can in some cases fail to raise distinguishes it from other English modals, which don't show the behavior of (48) or (49):

(54) You don't think he should work so hard and I don't think he should, either.

¹⁷How much it matters here whether there's one sentential merge position for *n't* or more than one is not clear - for relevant discussion, see Thoms et al. (2023).

¹⁸With *n't necessarily* perhaps originating as a constituent - cf. Chomsky (1973: 242) and especially Collins and Postal (2014).

¹⁹On raising past pre-VP adverbs, see especially Pollock (1989) and Cinque (1999). In:

i) He claims to have/be.

it seems virtually certain that infinitival *have* and *be* have raised, even if not as high as the corresponding finite *have* and *be* - cf. Pollock (1989) on (all) French verbs raising less high as infinitives than as finite verbs.

(55) He hardly can.

From the present perspective, this is due to *need* being the only English modal that consistently requires a derivation in which a nominal element is raised to a silent modal, as in (43), repeated here:

(56) ...n't MUST need...

with modal *need* not a primitive element of the English lexicon.²⁰

Appendix.

The question what is primitive/undecomposable and what is not is a pervasive one. I have just argued that modal *need* is decomposable into nominal *need* plus silent MUST, with which nominal *need* is in an adjunct-like relation that may be mediated by silent OF. How exactly external merge proceeds relative to *need*, MUST and OF is a more specific question that I will not delve into here, other than to say that it seems highly unlikely that these two (or three) elements form a constituent created by external merge.

Similar questions arise for English modal/future *will*. Thinking of the pair *will*, *would* and of the triplet *would*, *should*, *could*, it is plausible to take *w-* to be an isolable morpheme. Thinking of the pair *will*, *shall*, it is also plausible to take *-ll* to be separable. Furthermore, the vowel *-i-* disappears completely in my English in *I'll*, *you'll*, *he'll*, *she'll*, *we'll* and *they'll*; whether that is pure phonology or, rather, the silencing of a third morpheme is not entirely clear. I conclude that *will* is very likely bi- or tri-morphemic (even if the interpretive contribution of each morpheme is not yet clear). Again, it seems possible that its two or three subcomponents are not externally merged as a single constituent.

Everyone agrees, I imagine, that adverbs such as *unfortunately* are decomposable into adjective+*ly*. Those two subcomponents may or may not be externally merged with each other. (There may also be a silent preposition IN, thinking of *in an unfortunate way*.) A further question is, where exactly is *unfortunately* externally merged? A by now familiar answer is that it is externally merged in a high Spec position in the sentential projection line, as in Cinque (1999). A conceivable alternative that comes to mind, thinking of the similarity between the following two sentences:

(57) Unfortunately, you're late.

(58) The unfortunate thing is, (is) you're late.

would be to say, in a way partially similar to Ott (2014), that (57) has a structure similar to that of (58). The impossibility of:

(59) *How unfortunately is he late?

might then be related to:

(60) *How unfortunate a thing is, (is) he's late?

In pretty much the same spirit (though in a way that's taking us even further from modal *need*), we can note the partial similarity between focus-preposing and clefting, and we can wonder if we should not attribute to sentences involving focus-preposing a more complex structure than the one in Rizzi (1997), one that is akin to some degree to that of clefts.²¹

²⁰Cf. note 3 above.

²¹Cf. Kayne (2016, sect. 13).

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