When the Syntax is not what it seems*

Hilda Koopman

Department of Linguistics, UCLA

1. Introduction

A particular type of mismatch between the syntax and the semantics can be found in sentences with *can't seem* like the one in (1) (cf. Langendoen (1970), Jacobson (2006), Homer (2011), whose work inspired this squib).

(1) I cannot seem to get away from verbal complexes

a. *Paraphrasable as*: It seems that I cannot get away from verbal complexes
It seems that I am unable to get away from verbal complexes.
b. *Not as*: It cannot seem that I get away from verbal complexes.

The syntactic structure of (1) seems to be rather straightforward. *Can* appears to be in T, *not* in POL, and *seem* in the VP combining with an infinitival complement, *cannot* > *seem* > *to get away*, with the subject raising out of the infinitival complement. Yet, as the paraphrase of (1) in (1a) shows, there appears to be a mismatch between the syntactic structure and the interpretation: *seem* takes scope over *cannot* in (1), not under it, as (1b) shows.

The apparent scope reversal is restricted to subject raising *seem*, and ability modal *can*. It occurs not just with *not* but with any downward entailing expression.

(2) I can no longer seem to get away from verbal complexes

Homer (2011) presents this scope puzzle as follows, with E_{DE} referring to downward entailment expressions, and CAN as an abstract (ability) modal.

* Comments welcome! This is a squib for a (surprise) festschrift, do not circulate without asking. For comments and discussion, I would like to thank Vincent Homer, Nikos Angelopoulos, the students in my winter 2016 seminar at UCLA, and Chris Collins. Further development of this squib is in the works in collaboration with Vincent Homer.

(3) a. Surface order (ignoring V-to-T movement):
E_{DE} . . . can . . . seem
b. Scopal relations: SEEM> E_{DE} > CAN

This scope puzzle raises the question what exactly the relation between the surface structure in (1) and it interpretation in (1a) is. This is an issue of the division of labor between the syntactic component and the interpretative component.

In early generative work, Langendoen (1970) argued for a syntactic transformation with *cannot* raising from below *seem* in subject raising environments. In this account, the linear order in (3) is derived from an underlying merge structure that encodes the scope, as in (3b). As I will show below, there is in fact strong empirical evidence that this must be the direction any analysis has to take, and my analysis is in essence a modern update of Langendoen (1970). Jacobson (2006) proposes there is in fact no syntax semantics mismatch. The semantic composition must be read off from the syntactic structure, she argues, taking the surface syntax in (3) to reflect the underlying syntactic structure transparently. Thus, she denies (3b) as a linguistic representation for the meaning of (3). The syntax semantic mismatch in her account is in fact an illusion. Since Jacobson (2006) is incompatible with the syntactic properties of (see section 2.1 below), I will not further discuss her analysis here. Homer (2011) focuses primarily on the semantics of the *cannot seem to* construction. He assumes that the surface syntax translates rather straightforwardly into a syntactic order of (e)-merge, though this is not the main focus of his paper. Homer argues that *seem* is a PPI and proposes that *seem* must raise out of downward entailment contexts in the *covert* syntax. In his analysis (3b) derives from (3), and there is a mismatch in this respect between the syntax and the semantics.

In this squib, I argue that the apparent simplicity of the surface syntax is deceptive: in fact there is evidence that there *must* be a syntactic derivation that derives (3) from an underlying merge order of (3b). The issue here is what the syntax derivation could be that yields the following result. From an underlying order of (E-) merge in (4a), where the numbers refer to c-command such that 1 c-commands 2, 2 c-commands 3, etc, we must derive a surface structure in which 3 (not 1) combines with T, and 2 with POL in subject raising configurations:

(4) a. SEEM1 > E_{de}2 > CAN3
It seems I cannot get away from verbal complexes
b. CAN3 $\boxed{\text{T}}$> E_{de}2 $\boxed{\text{POL}}$ > SEEM1
I cannot seem to get away from verbal complexes

As I will show, verbal complexes, and complex verb formation in the sense of Koopman and Szabolcsi (2000) has a central role to play in the syntactic derivation. In the Germanic OV languages, and Hungarian complex verb formation underlies the various verb clusters found in almost every sentence: it turns out that it also plays a central role in the derivation of these English sentences, providing a derivational path for *can* and a downward entailing element to reach T and $\boxed{\text{POL}}$ in raising to subject contexts involving *seem*. I will show below how the different players conspire to yield (4b). But first I turn to two arguments

that establish that (4a) *must* be the syntactic order of Merge from which the linear order in (4b) is derived.

2. Establishing the syntactic hierarchy through scope: a verbal complex in English

The paraphrases below show the following scopal relations: SEEM $>$ E$_{DE}$ $>$ CAN$>$VP.

(5) a. They cannot seem to figure the syntax out
b. *Paraphrasable as*: It seems that they cannot figure the syntax out Noone can seem to figure this out
c. *Paraphrasable as* It seems that noone can figure this out

In antisymmetry, Kayne (1994, 1998), linear order reflects asymmetric c-command, and c-command corresponds to scope: we expect the linear order to map onto the scope hierarchy (order of Merge), which may be universal (as in Greenberg's Universal 20's account of Cinque (2005)), or not. This forces a hierarchy of merge SEEM1 $> E_{de}2 >$ CAN3. As we will see, this is not merely a matter of theoretical choice, there is strong empirical evidence that this must be the case. The argument is simple: the wellformedness of the main verb VP is determined by CAN, never by *seem to*, as the following section shows.

2.1 Two arguments that CAN merges with the lexical "VP"

There are two arguments that abstract CAN indeed merges with the VP, before *seem to* does. First, factoring out *seem to* always yields a perfectly well formed string. Furthermore *can VP* or *cannot VP* can be idiomatic, as shown in the following examples from (Langendoen 1970, 2 and 3)).

(6) a. Abe can't (seem to) afford paying the rent
b. Harry can't (seem to) help falling asleep
c. Sam couldn't (seem to) stand the sound of jackhammers underneath his bedroom window
d. Tevye couldn't (seem to) tell the difference between right and left

In (6a), we find the idiomatic expression *can afford*. As Langendoen points out * *I afford paying rent* is illformed, and so is * *I don't afford paying rent*, with the heads *can* and *afford* fixed parts of the idiomatic expression forming a sequence of uninterrupted local heads. The same is true for (CAN STAND) in (6c), and (CAN TELL) in (6d). in (6b), we find an idiomatic NPIs (NEG/DE CAN HELP) in (6b). Idioms of *(can) seem to V* however do not seem to occur. Since factoring out *seem to* always yields a perfectly well-formed string, where *can VP* or *not can VP* can be fixed, we can conclude that the lexical VP merges with ability *can*, not with *seem*. The hierarchy of merge *must* be *seem to* $>$ *DE* $>$ *can*. Note that this is the same type of argument that allows diagnosing raising to subject. In the cases above, however, it is not just the subject raising out of the *seem* complement, but a larger

chunk of structure, to wit, the subject, negation (in fact a downward entailing expression) and *can* which raise out of the infinitival complement.
In sum, a (syntactic) movement account is required no matter what, with (NEG CAN taking a bare VP complement, as modals usually do, and *seem to* merging with the result.

A second argument further confirms the relative order of E-merge of *seem to* and *can*, as *seem to* $>$ *DE* $>$ *can*. As discussed in Homer (2011), the *cannot seem to* construction is exempt from an aspectual restriction that present tense *seem* otherwise always imposes: the main embedded predicate must be stative, (or receive a non-episodic reading), with the exception of the *can't seem to* construction.

(7) a (i). *They seem to sleep — a (ii). They cannot seem to sleep
b (i). * I seem to swim the butterfly — b (ii). I cannot seem to swim two miles

This is however entirely expected if *sleep* is embedded under CAN, as we showed it must be. Then CAN should satisfy the aspectual restrictions of *seem* by virtue of the structure, which it does.

(8) a. They cannot seem to NOT CAN sleep
b. I cannot seem to NOT CAN swim the butterfly

Although *can* may not surface in infinitivals, *be able to* can do so (and fails to climb).

(9) a. They seem unable to sleep / They seem to be unable to sleep
b. They seems unable to sing / He seems to be unable to sing
c. They cannot seem to NOT CAN sing

Thus, the *cannot seem to* construction *must* be derived in the syntax, as Langendoen proposed in (1970), a time where there were no other options available.

2.2 The syntactic derivation –A verbal complex

I have now shown that the structure in (10a) must show the order of merge underlying (10b). The problem now is motivating the syntactic derivation.

(10) a. It seems that they can no longer afford paying the rent
b. *derivation to be developed*
They can no longer seem to NEG CAN afford paying the rent

The syntactic derivation that yields the order in (10b) faces several problems: how can the finite T combine with *can*, and not with *seem*, and how does the relevant of chunk of structure, the subject, and *no longer can* move out of the infinitival complement. This is clearly not head movement, but a phrasal movement (or several phrasal movements). Given the basic assumption that only constituents can move, this is only possible if the sequence *no longer can* is in fact a remnant constituent not containing the VP at some point in

the derivation. To solve these problems, verbal complexes, as found in the OV Germanic languages, turn out to play a central role.

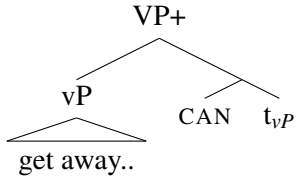
2.3 Verbal complexes: a verbal complex in English

In Koopman and Szabolcsi (2000), we motivate a uniform analysis underlying verbal complexes in Dutch, German, and Hungarian. *Seem* and CAN are typical clustering verbs in Dutch and German, and as is well known verbs that typically participate in "restructuring" crosslinguistically. So, let's simply extend the existing (and fully specified) analysis to the English *cannot seem to* construction, and see if it derives the properties of the *cannot seem to* construction in English as well.

A crucial analytical ingredient of our analysis is the assumption that clustering verbs must always form a complex predicate (a UG requirement)–and that this is represented as a designated syntactic configuration (slightly larger than VP, we called it VP+, sometimes labeled as PRED). Clustering verbs minimally attracts a VP+, but complex predicate formation is sometimes obscured in the syntax by pied-piping, and interactions with the requirements of other elements in the derivations (*to*, infinitival morphology, C,..) As we demonstrated, these movements are phrasal overt movements, driven by the need to satisfy features in strictly local configurations, and obey the extension condition.

I sketch the derivations below, and start out the English derivation with CAN merging with a vP complement. Since CAN must form a complex predicate, it attracts a subconstituent of the vP (which we called VP+), to its VP+. vP pied-pipes the lexical projection, as detailed in (11).

(11)
a. CAN merges with VP
b. CAN must form a verbal complex with a subconstituent of VP (VP+) in VP+
c. VP+ pied-pipes vP

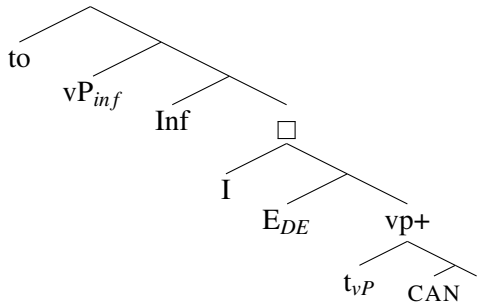


In the next step, a downward entailing expression is merged (12a). I assume the subject DP is also merged here, as in (12b) (either by E merge, or I merge, though nothing hinges on this). When the complement of *seem* includes an infinitive (as opposed to an adjectival small clause), *to* must appear in the structure. As in Dutch and German, *to* attracts an "infinitival VP"(which is a bare VP in English of course)[1]. This step creates a remnant constituent, with *can* in the VP+ that will need to form a complex predicate with *seem*. Note that *to* will fail to combine with *can*, since *can* lacks an infinitival form[2].

[1] I depart from K&Sz in allowing subextraction out of a specifier within a phase.

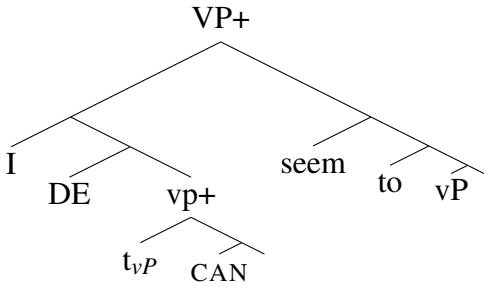
[2] If abstract ability CAN moved, this derivation would have to result in *to be able to* with *be* required to satisfy the properties of *to*, and showing the surface distribution of the *to* complement in which it is contained.

(12) a. Merge E_{DE} *no longer*
b. merge Subject *I*
c. Merge INF, attract vP (not *can*), Merge *to*
□ *marks the node that VP+ will pied-pipe in the next step*



In the next step of the derivation, *seem* is merged. As it must form a complex verb, it attracts VP+, now containing only the unlicensed CAN. I will assume that VP+ pied-pipes the subject and DE.

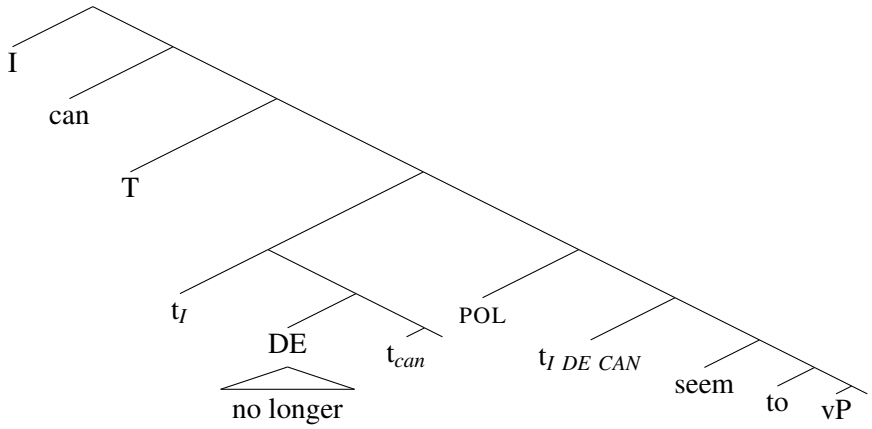
(13) a. Merge *seem*, attract VP+ containing CAN
b. CAN pied-pipes the DE *no longer* and the subject *I*
NB: This step "smuggles" CAN *past seem*



As we observe, *seem* is not c-commanded by the DE expression, and hence *seem* is not in the scope of the DE. We note that this step *must* be the the highest point at which scope is calculated: even though *cannot* ends up marking the polarity of the clause as negative[3], as the Horne tests show, *He cannot seem to do this, can he?*. it does not appear to interact with the calculation of relative scope over *seem*.

In the next steps in the derivation POL, T, and Spec, TP merge. POL attracts the DE (which perhaps marks it as negative). If this time DE pied-pipes CAN, we may understand why a DE expression is a necessary ingredient in the construction: it further shift *can* to a higher position in the tree, and thus explains why *can*, but not *seem* ends up in T: movement to POL, brings CAN closer to T than *seem*. When T merges, *can* will be closest to T, and move to T, as we know it must. Finally, the subject merges in Spec, TP, as shown below:

[3]Many thanks to Chris Collins for discussion of this problem.



3. Conclusion

The syntax of the *cannot seem to* construction in English turns out to not be as simple as it seems. Probing the syntactic structure yields evidence for the particular syntactic hierarchy that underlies the syntactic derivation, and shows that the syntactic hierarchy must be identical to the hierarchy of scope[4]. This can be readily observed in any related sentence in which raising is blocked, or in which abstract ability is spelled out as *able*. I have argued for a derivation in which complex verb formation, as abundantly observed in the sister Germanic OV languages, equally informs the derivation of the surface order in English, using the assumptions, derivations and parameters argued for in Koopman and Szabolcsi (2000), with pied-piping possibilities (and who pied-pipes who) playing an important role in the derivation[5].

For this particular case, then, there is no mismatch between the syntax and the interpretive components. Whether other cases of scope mismatch can also be eliminated, as already argued in Kayne (1998), needs to be further evaluated, but comparative syntax and the left right asymmetries that human languages exhibit (Kayne (1994)Cinque (2009)) will have to figure prominently into this research. What is clear though is that the current general tendency in the field to try to keep the syntax "simple" or remove many parts from the syntax, is not a helpful starting point for research that specifically addresses the nature of the interfaces. If we take the syntax that underlies many arguments for postsyntactic movement seriously, as I show, in Koopman (2016)

References

Cinque, Guglielmo. 2005. Deriving Greenberg's universal 20 and its exceptions. Linguistic Inquiry 36:315–332.

[4]Note that this hierarchy is not incompatible with Homer's conclusion that *seem* is a positive polarity item in the sense that it outscopes the DE element in the hierarchy of merge.

[5]I cannot show here how to derive the impossibility of an intervening experiencer first discussed in Langendoen (1970), nor to show how other restructuring phenomena fall out, but that will be forthcoming

Cinque, Guglielmo. 2009. The fundamental left-right asymmetry of natural languages. In Universals of language today, 165–184. Springer.

Homer, Vincent. 2011. As simple as it seems. In Proceedings of the 18th Amsterdam Colloquium.

Jacobson, Pauline. 2006. I can't seem to figure this out. Drawing the Boundaries of Meaning: Neo-Gricean Studies in Semantics and Pragmatics in Honor of Laurence R. Horn, Amsterdam: John Benjamins 157–175.

Kayne, Richard S. 1994. The antisymmetry of syntax. Cambridge, Massachusetts: MIT Press.

Kayne, Richard S. 1998. Overt vs. covert movement. Syntax 1:128–191.

Koopman, Hilda. 2016. A note on huave morpheme ordering: local dislocation or generalized u20?, volume Perspectives on the Architecture and Acquisition of Syntax: Essays in Honour of R. Amritavalli. Springer.

Koopman, Hilda J, and Anna Szabolcsi. 2000. Verbal complexes. Cambridge, Massachusetts: MIT Press.

Langendoen, D. Terence. 1970. The 'can't seem to' construction. Linguistic Inquiry 1:25–35.

Hilda Koopman
koopman@ucla.edu