Small Clause Subjects *do* Reconstruct

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1.   No scope diminishment in diminutive clauses

Williams (1983), as one of his arguments against analyzing the complement in (1-a) as a Stowellian small clause (SC), showed that raised small clause subjects (SCSs) can't take narrow scope with respect to the predicate that embeds the small clause. Subjects raised from infinitives can (1-b). (In Appendix A, further examples, which control for some confounding factors, serve to verify Williams's claim about the kinds of cases he looked at.)

(1)   *Seeing an empty seat in our otherwise crowded classroom*

      a.   A student seems sick today.
          a ≻ seem; *seem ≻ a
      b.   A student seems to be sick today.
          a ≻ seem; seem ≻ a

These data are primary evidence for the small clause critic. Among believers in small clauses, these data require explanation. In this latter camp, it is generally acknowledged that 'size' has something to do with lack of scope diminishment in Williams's cases. There are two families of accounts in the literature. One family relates the lack of scope diminishment to the impossibility of quantifier lowering, or syntactic reconstruction, of the raised subject.[1] In another family of approaches, the lack of narrow scope follows from the absence of operations like ∃-closure in SCs (Heycock 1995, Sportiche 2005).[2]

      This paper gives an argument for the latter view, using the following kinds of examples—certain circumstances where a narrow scope interpretation for a SCS is available.

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[1]For Stowell (1991) and den Dikken (2008) there are movement operations that small clauses, being small, must be subject to and these prevent reconstruction. Johnson and Tomioka (1998) suggest that, given certain assumptions about how quantification works (Heim 1982), reconstruction can't put a quantificational expression in its theta-position. But small clauses provide no other for the subject to reconstruct into.

[2]Basilico (2003) offers a quite different account of the restriction, relating to the topic status of SCSs. Discussion of this approach is taken up in Section 7.

(2)   Three more papers on reconstruction seem unnecessary.

We'll see that this example, and others, is a genuine case of a SCS taking scope within the small clause. Here's the basic story we'll tell: the SCS in (2) attains narrow scope with respect to *seem* in virtue of taking narrow scope with respect to *unnecessary*. This adjective takes (property-type) indefinites and introduces $\exists$-quantification, just like intensional transitive verbs (Zimmermann 1992, Van Geenhoven and McNally 2005). In the original Williams's case in (1-a), on the other hand, the embedded predicate is a garden-variety extensional adjective; it provides no source of existential quantification. Since small clauses lack, by hypothesis, an $\exists$-closure operation, the SCS must get its quantificational force in the matrix clause. If anything like the view that indefinites attain their quantificational force from operators housed in functional projections of the clause—an old idea with many variants over the years[3]—then these facts about small clauses are entirely expected.

2.   When Narrow readings *are* possible

Here are some more cases. Narrow scope interpretations for SCSs are available when the embedded predicate is a modal adjective.[4]

(3)   a.   She considers a new fridge unnecessary.

        unnecessary ≻ a new fridge; a new fridge ≻ unnecessary

        b.   A stove seems to me much more necessary.

        necessary ≻ a stove; a stove ≻ necessary

I can use (3-b) to convey that what seems to me is that in all worlds that satisfy some needs, there is a stove—but not necessarily the same stove across those possible worlds where those needs are satisfied. This is certainly **not** an interpretation we would expect if the SCS had to take wide scope with respect to *seem* and *consider*.

A range of indefinites, including existentials, allow readings that put them in the scope of the modal adjective in the small clause.

(4)   a.   Sm policemen seemed necessary.   *seem ≻ necessary ≻ sm*
        b.   Two more Green Party senators seem necessary.   *seem ≻ necessary ≻ 2*
        c.   Someone from France appeared likely to win.   *appear ≻ likely ≻ ∃*
        d.   Five police officers seemed to us required by the regulations governing street
                parties.   *seem ≻ require ≻ 5*

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[3]Of course, stemming from Heim (1982), there is Diesing (1992), and in a Hamblin semantics, Kratzer and Shimoyama (2002), among others.

[4]We are limited to asking about the scope of indefinites, because it is only these that we believe undergo A-movement reconstruction in the first place (Boeckx 2001).

In virtue of being interpreted narrowly with respect to the **embedded** predicate, these SCS are interpreted narrowly with respect to the **embedding** predicate.

But now we have something of a puzzle. An SCS can take narrow scope below *seem* in (3) and (4), but not in the original Williams cases, (1). What gives? The answer hinges on the nature of the embedded predicate: narrow scope is only possible if the small clause contains a scope-bearing predicate that itself can put indefinites in its scope. So the difference devolves to the difference between the adjectives: only those in the latter cases interact scopally with indefinites.

(5)   a.   A student is sick.
        b.   A student is necessary $\approx$ What's necessary is some student or other

What gives the subject in (5-b) narrow scope is the particular way that modal adjectives modally embed indefinite DPs. I will show that they behave like intensional transitive verbs (Zimmermann 1992, Van Geenhoven and McNally 2005) in taking property-type objects. Adjectives like *sick*, on the other hand, describe properties of individuals, as usual. This difference, coupled with the assumption that SCs don't provide any structural source for "closing off" property-type indefinites (i.e. no existential closure) will generate the difference between Williams's examples and the ones introduced here. We're first going to start with a careful defence of the claim that modal adjectives take properties.

3.   Some scope facts about intensional adjectives

Famously, a certain class of intensional transitive verbs (ITVs) allow only those noun phrases with property-type interpretations to fall in their scope. Indefinites, for instance, can, e.g. *Matt looked for a table*. On the other hand, quantificational expressions like *most-*NP (which don't have property denotations (Partee 1986)) cannot scope under intensional *look for* as in (6) (Zimmermann 1992). Some particularly clear examples constructed by Schwarz (2006) are cited below.

(6)   *Context: Matt needs to have change on hand for the conference*
        Matt is looking for most of the small bills that were in the cash box.
        a.   for most bills x: Matt is looking for x.
        b. *in all worlds where Matt's search is successful, he has most of the bills.
            (Schwarz 2006(16))

It should be said, of course, that there are other intensional transitive verbs, like the active form of *need*, that can put *most*-NPs in their scope:

(7)   *Context: Matt needs to have change on hand for the conference*
        Matt needs most of the small bills that were in the cash box.
        a.   for most bills x: Matt needs x.

      b.   in all worlds where Matt's needs are met, he has most of the bills.

          (Schwarz 2006(15))

Modal adjectives like *necessary* pattern like *look for* and not like *need* (surprisingly) in this respect:

(8)   *Context: We need to have change on hand for the conference*
        Most of the small bills that were in the cash box are necessary.

      a.   for most bills x: x are necessary.
      b. *in all worlds where our needs are met, we have most of the bills.

As with ITVs, (8) motivates (9) as a denotation for *necessary*. It takes a property-type argument and introduces modal embedding (see Van Geenhoven and McNally 2005); the result is that the property-type argument is interpreted as a narrow scope existential.[5]

(9) $\llbracket$ *necessary* $\rrbracket = \lambda P_{e,st}.\lambda w.\forall w' \in$ Nec(w) $[\exists x \, [P(x)(w')]]$
       where Nec$(w) = \{$w' : w' is compatible with what's necessary in w$\}$

(10)   a.   A fridge (is) necessary.
       b. $\forall w' \in$ Nec(w_0) $[\exists x \, [fridge(x)(w')]]$

3.1   Further evidence for a property analysis: presupposition

Here we add a second argument for treating modal adjectives as property-taking. It's been suggested that some—and maybe all—ITVs may actually take abstract clausal complements, not properties (Larson et al. 1997).[6] The claim is that there is a hidden clausal complement for ITVs such as *need*, which means something roughly like *to have*.

(11)   Maria needs a roll of film $\approx$ Maria needs to have a roll of film.

Schwarz (2006) discovered a diagnostic using presupposition to detect these such a hidden clause. The particle *too* introduces presuppositions. When the clausal complement of *need* is overt, as in (12), *too* can attach "high", presupposing that Maria needs to have something besides a roll of film. Or it may attach "low", to the embedded clause, implying that Maria has something in addition to a roll of film.

(12)   Maria needs to have a roll of film too.

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[5]Clause-taking *necessary* (*It is necessary that there be a fridge*) must simply have a different denotation, taking propositions.

[6]Since there is A-movement in (8), it could be argued that we haven't shown that *necessary* takes properties; rather we may have shown that (short) A-moved *most-NP*s do not reconstruct into their base position.

If ITV *need* embeds a constituent with a meaning like the overt complement in (12), then *too* ought to target this. And this is exactly what Schwarz finds. Schwarz sets up the scenario in (13) that promotes the "low" attachment because the "high" attachment is unsupported.

(13)   *While rummaging around the attic, Maria found her Dad's old camera. When she told him, he asked her to take pictures with it at the party he was about to throw. Maria really didn't need it, since she had a nice new digital camera, but she didn't want to be impolite, so she promised him that she would take some pictures with his camera.*   (Schwarz 2006(9))

(14)   Now she needs [a roll of FILM for the camera]$_F$ too before the party starts.
   a.   low attachment of *too* presupposes: she has something else apart from the film. (true)
   b.   high attachment of *too* presupposes: she needs something else apart from the film (false)   (Schwarz 2006(10))

Turning to modal adjectives like *necessary*, we see the opposite holds. Given the same scenario, the only presupposition *too* can trigger in (15) is an unsupported one.[7]

(15)   #Now [a roll of FILM for the camera]$_F$ is necessary too before the party starts.
   a.   low attachment of *too* presupposes: we have something else apart from the film. (true)
   b.   high attachment of *too* presupposes: what's necessary is something else apart from the film (false)

Compare with an overt clausal complement with *necessary*:

(16)   Now [a roll of FILM for the camera]$_F$ is necessary to have too before the party starts.

Modal adjectives take property-type indefinites.

4.   Putting the pieces together

The final piece we need is any account of indefinites that treats them as property-denoting, without quantificational force of their own. In principle, there are many technologies that will serve to cash out the account I offer (e.g. unselective binding (Heim 1982), alternatives/Hamblin semantics for indefinites (Kratzer 2005, Kratzer and Shimoyama 2002)). Here I demonstrate the heart of the account with a simple approach to indefinites. In principle, the results should carry over to more 'sophisticated' analyses of indefinites.

The assumptions are summarized below:

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[7]Of course, the syntactic location of *too* would have to modify a constituent from which the subject has raised. In principle this should be available. This is shown in the case where the complement of *necessary* is an overt, full clause.

#1 indefinites uniformly denote properties.

- indefinites combine with adjectives like *sick* via (intensional) predicate modification (viz. Chung and Ladusaw 2004)

#2 A functional head $\exists$ is responsible for existential closure

(17) $[\![\exists]\!] = \lambda P_{e,st}.\lambda w.\exists x[P(x)(w)]$

#3 Small clauses lack $\exists$ (by hypothesis; see also Section 7)

#4 *seem* takes propositions (glossing over entirely the kinds of worlds *seem* makes accessible).

(18) $[\![\, seem \,]\!] = \lambda p.\lambda w.\forall w' \in seem(w) \, [p(w')]$

We are now in a position to compute the central cases. Infinitival complements are large enough to house $\exists$; deriving narrow scope existentials is routine.

(19)   Infinitival complements ($\exists$ available)
    a.   A student seems to be sick.
    b.   LF: [seems [$_{TP}$ $\exists$ [a student sick]]] =

    [*seems* [$\lambda w.\exists x$ [*student*$(x)(w)$ & *sick*$(x)(w)$]]]

A type clash arises for SC complements with a property-type indefinite: the SC denotes a property but *seem* takes a proposition.

(20)   Small clause complements
    a.   A student seems sick
    b.   *LF: [seems [$_{SC}$ a student sick]] =

    [*seems* [$\lambda x.\lambda w.student(x)(w)$ & *sick*$(x)(w)$]]

There are two options for SCS. One involves movement of SCS, leaving an individual type trace. This gives *seems* its propositional complement. The property-type indefinite then composes via predicate intersection in the matrix clause (movement having created a predicate-abstract). The matrix clause houses the closure, but this necessitates a wide scope transparent indefinite SCS, just as Williams found.

(21)   Small clause complements with movement of SCS
    a.   A student seems sick
    b.   LF: [$\exists$ [*student*$_i$ [*seems* [$_{SC}$ t$_i$ sick]]]] =
        $\lambda w.\exists x$ [*student*$(x)(w)$ & *seems* [$\lambda w'.sick(x)(w')$]]]

The other option is instantiated by our star example. In just the case where there's a property-taking predicate like *necessary* in the SC, the SCS can be interpreted low and *seem* nonetheless gets a proposition. Moreover, we get the right meaning: it puts the indefinite in the scope of *necessary* and therefore in the scope of the embedding predicate.

(22)   a.   A fridge seems necessary.
           b.   LF: [seems [necessary [a fridge]]] =

                [*seem* [$_{SC}$ *a fridge necessary*]] =

                [*seem* [$\lambda w.\forall w' \in \mathrm{Nec}(w)$ [$\exists x$[fridge$(x)(w')$]]]]]

The LF in (22) assumes syntactic reconstruction for the SCS, but that's not crucial. We could have left a property-type trace.

4.1   Summary

In a way, Williams' was right all along: small clause subjects don't reconstruct. But only if by "reconstruct" we mean "be associated with a quantificational head housed in a functional head lower in the tree". On this view, quantificational expressions never "reconstruct" in A-movement: it is simply a matter of where $\exists$ resides (Sportiche 2005, Butler 2004, Johnson 2006, a.o.).

The analysis makes use of another idea: syntactically regulating $\exists$-closure by tying it to a spot in the tree (e.g. Diesing 1992, et. seq.). This line of thinking is still relevant and useful today, even though this sort of "syntacticization" has been called into question for the kinds of effects Diesing looked at (Jager 2001). This latter point relates to Basilico (2003), who gives an information structure account for the lack of scope reconstruction in SCs. Basilico argues that SCs of the adjectival sort are categorial claims, and therefore SCSs are "topics" in this sense. He then relates this to the lack of narrow scope. While SCSs do seem to have a 'topical' status that may very well be that of a categorial subject, this could just as easily *follow from* (and not be the source of) the scope facts. The availability of narrow scope interpretations suggests, in fact, that the feeling that small clause describe categorial judgments may well be epiphenomenal.

We inherit, though, all the problems and questions that Diesing's mapping hypothesis did. So SCs must allow $\exists$ in certain places; e.g. to handle the objects of prepositions, which can be construed as narrow scope existentials.

(23)   Mary seems in love with a hat like mine.

This just shows that prepositional phrases can contain existential operators. We also inherit all the questions about the underlying source for existential closure: an obvious and long-standing question is whether $\exists$ is housed in a particular projection: perhaps it is introduced by *be* or comes with the presence of an event argument (Heycock 1995).

Instead of rehearsing the old answers to these questions, I want to address three remaining issues. The first involves the predictive nature of this account: what kinds of adjectives take properties and thereby allow SCSs to scope low? In the next section we'll see some potential counter-examples to the generalization offered here that modal adjectives are responsible for the effect. The second issues involves bare plurals, about which much has been said in the small clause literature.

In the final section of this paper. I am going to address the central topic: the existence of small clauses. I've presented these facts as an argument for small clauses. The question is whether we could get this range of facts without believing in small clauses. We can, it turns outs, but at the cost of introducing function composition into our repertoire of compositional mechanisms (Jacobson 1992).

5.   Distinguishing among embedded predicates

Examples like (24) may appear at first glance to be counter-examples to the generalization that only modal adjectives are able to "smuggle" indefinites into SCs. The following SCs don't contain modal adjectives, but the indefinites appear not to receive straight-forward wide-scope existential interpretations.

(24)   a.   A new car seems expensive.
         b.   A fridge seems expensive.
         c.   A Mercedes seems unwarranted.

But, it's quite likely that these aren't genuine cases of *seems* $\succ$ $\exists$: unlike the cases where the embedded predicate is a modal adjective (25-b), note that paraphrase in (25-a) is not quite right (at least, not for the intended meanings).

(25)   a.   A new fridge seems expensive $\napprox$ It seems that a new fridge is expensive.
         b.   A new fridge seems necessary $\approx$ It seems that a new fridge is necessary

If anything, the SCSs in (24) are kinds or interpreted generically. Further research needs to determine if this is correct, and whether the scope of such SCSs is limited in a way consistent with Williams' generalization and the facts introduced here.

6.   Bare Plurals and Small Clauses

An often-cited fact about small clauses is that bare plural (BP) SCSs are limited in their interpretation. Heycock (1995) claims that bare plural SCSs cannot be interpreted existentially, but rather must be interpreted generically (her terms):

(26)   a.   Firemen seem available.   (Heycock 1995, 234:(39a))
         b.   Firemen seem to be available.

There are two factors to untangle here: (i) whether a BP SCS is interpreted existentially or generically and (ii) whether, in each case, it is scopally interpreted within the SC or outside of it. The following examples surely are wide-scope existential bare plural SCSs:

(27)   a.   Children in the next room seem sick right now. They all look feverish.
       b.   Sm fireman appear upset with their poles.
       c.   Sm guy with a drink seems unhappy talking to Lou-Anne.

The question which we ought to ask is whether a BP SCS can be interpreted existentially and yet narrow with respect to *seem*. It seems that bare plurals can only receive a narrow scope existential interpretation with modal adjectives in the SC, not regular old (S)-level predicates.

(28)   a.   Camping stoves seem necessary $\approx$ given the evidence, what's necessary are sm camping stoves.
       b.   Camping stoves seem on sale. $\not\approx$ given the evidence, sm camping stoves are on sale.

7.   Other quantifiers

Our proposal makes a further prediction: SCS cannot take narrow scope in the presence of just *any* quantifier in the SC. Assuming other quantifiers are not a source of existential-closure (but, of course, see Heim 1982) we don't expect those quantifiers to "smuggle" SCSs into the SC. Take the following configuration:

(29) QP_1 *seems* [$_{SC}$ PRED [$_{PP}$ ... QP_2 ...]]

QP_1—the SCS—will not be able to scope below QP_2 unless QP_2 itself QRs higher than QP_1. But in that case, QP_1 will still outscope *seems*. That this prediction is correct is demonstrated by the fact that (30) has one reading less than (31). The relevant scopes are indicated.

(30)   A unicorn seemed upset in every picture.
       $^{ok} \exists \succ seems \succ \forall$; $^{ok} \forall \succ \exists \succ seems$; $* \forall \succ seems \succ \exists$

(31)   A unicorn seemed to be upset in every picture.
       $^{ok} \exists \succ seems \succ \forall$; $^{ok} \forall \succ \exists \succ seems$; $^{ok} \forall \succ seems \succ \exists$

The scope permutations are hard to tease apart. In both, the indefinite can fall under the universal, and so unicorns may vary from photo to photo. At stake, however, is whether the indefinite can fall within the scope of the modal operator *seems*; and here it seems to be the case that we're committed to there being unicorns in the small clause example.

8.   Appendix A: Verifying Williams

We should verify that there is indeed is contrast between (1-a) and the sentences where scope diminishment is possible. That is, we want to make sure that Williams' empirical claim is correct, at least for those cases like (1-a). There is a worry about (1-a) because the epistemic nature of *someone* (Strawson 1974) confounds the issue somewhat in judging its scope relative to epistemic *seem*. We can get clearer judgments about the relative scope of a raised subject and *seem* with a numeral indefinite as in (32).

(32)   *Seeing an empty seat in our otherwise crowded classroom*

    a.   A student seems sick today.   (Williams 1983, 293:(40a))

        *someone ≻ seem; *seem ≻ someone*

    b.   A student seems to be sick.

        someone ≻ seem; seem ≻ someone

(33)   *Last weekend we were walking through the woods and encountered a sleeping bear. But it was so large we mistook things.*

    a.   Two bears seemed asleep.

        *2 ≻ seem; *seem ≻ 2*

    b.   Two bears seemed to be asleep.

        2 ≻ seem; seem ≻ 2

A wide scope interpretation for the raised subject requires that there are two bears and given the available evidence those bears are asleep. The narrow: given the available evidence, there are two bears asleep. In the scenario, only the narrow scope construal is true. Since (33-a) can't be used to report what's happening here, we conclude with Williams that SCSs don't undergo scope diminishment.[8]

    Another example:[9]

(34)   *There is an empty seat in our otherwise crowded classroom...*

    a.   A student appears absent today.

        *a ≻ appear; *appear ≻ a*

    b.   A student appears to be absent today.

        a ≻ appear; appear ≻ a

And just to make sure, there's nothing in principle wrong with "appear absent":[10]

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[8]Just as the quantificational component of SCSs cannot take narrow scope under *seems*, we expect that neither can the descriptive content of the noun phrase/world parameter be interpreted opaquely (see Fodor 1970 on the distinction). Since we can't seem to get a narrow-Q reading for the SCS, we don't expect an opaque reading either (unless we can find a "fourth reading" here).

[9]Heycock (1995), see also Basilico (2003), examines the distribution of bare plural subjects in small clauses. Their data seem to confirm the present claims, but see the Appendix on bare plurals.

[10]This is a concern because there is some feeling that SCs under *seem* report "direct evidence." Matushansky (2002) gives the following as a demonstration:

(35)   A student—who normally sits here—appears absent today.

We conclude that Williams' empirical claim is correct: in the general case, SCSs do not reconstruct. This fact may not be news, but the facts reported in the next section are. And the two together present something of a paradox we aim to resolve.

9.   Appendix B: The Alternative: function composition

I said that the availability of a narrow scope interpretation in small clauses all but proves their existence. There is one way, however, to maintain that small clauses don't exist and still get scope diminishment: function composition. This will let small clause-embedding predicates pass up the denotations of the embedded predicate. To do this, I will adopt for small clauses a proposal made by Jacobson (1992) for infinitival raising complements.[11] Function composition effectively takes two functions and applies one to the other, allowing a "delay" in the composition of the inner function with its argument.

(36)   *Function Composition*

A ∘ B = $\lambda g.A(B(g))$

where B is a function taking g and A a function taking B(g)

Recall that *seems* is interpreted as a propositional operator, and so (aside from its world argument) takes a propositional argument.

(37) $[\![$ *seem* $]\!]^w = \lambda p.\lambda w.\forall w' \in \text{seem}(w)\ [p(w')]$

Function composition could, however, allow *seem* to compose with an unsaturated predicate. In this view, *seem* and the predicate in the small clause would form a constituent, followed by composition with the subject. Call this a *complex predicate*, following ideas in Chomsky (1955/1975).[12]

(i)   *Context:* we enter a room, look at Kleenexes and medicine bottle strewn all over the floor.

    a.   The squire seems to be sick.

    b.   #The squire seems sick.   (Matushansky (2002): 225(14))

As Matushansky says, the SC is odd here, since we haven't actually seen the squire. The worry, now, is that there could be an evidentiality requirement that is interfering with scope judgments. That is, it could be that the SCS of SC-taking *seem* must describe the direct evidence on which the prejacent of *seem* is based. That alone could force wide-scope interpretations of SCSs in Williams' cases. However, I don't think that's the source of wide scope. The reason? (35) is acceptable, so the SCS doesn't always have to be direct evidence. My suspicion about Matushansky's squire example: SCSs that are interpreted wide—definite descriptions certainly being able to—are interpreted with respect to reference/resource/topic situations that form part of the 'evidence' situations on which *seem*-reports are based.

    [11] Jacobson argues that her analysis applies to infinitival raising constructions (e.g. *A unicorn seems to be approaching*) and not to small clauses. It appears better suited, though, to small clauses and not infinitives for the simple reason that subjects raised from infinitives can scope below *seem* in the absence of a lower scope-bearing predicate, unlike SC *seem.*

    [12]See Williams and di Sciullo (1987), Larson (1988), and Neeleman (1994) for further syntactic arguments for this approach.

(38)   *The formation of a complex predicate by FC* [13]
⟦ *seem* ⟧^{w} ∘ ⟦ *necessary* ⟧^{w}
= λP. ⟦ *seem necessary*(P) ⟧^{w}

This can then combine with the SCS, if the SCS is a property-denoting DP. The interpretation that results is given below:

(39)   ⟦ [*seem necessary*] (*fridge*) ⟧^{w}
= $\forall w' \in$ seem(w) [$\forall w'' \in$ Nec(w') [$\exists x$ [fridge(x)(w'')]]]
≈ It seems that in all words w" where what is necessary is satisfied, there is a (possibly different) fridge in w"

The result is that *a fridge* is in the scope of *necessary* and in the scope of *seems*. If the embedded predicate is not one that itself selects for anything but individual types, there is no way to "smuggle" a quantificational SCS below the scope of *seems*. The "complex predicate" that is formed by function composition is simply a property of individuals.

(40)   a.   A student seems absent.
b.   ⟦ [*seem absent*] (*a student*) ⟧^{w}
= $\exists x$ [student(x)(w) & $\forall w' \in$ seem(w) [absent(x)(w')]]

Function composition gets the scope facts right. If we have negation or modifiers (e.g. *I consider him not happy, A fridge seems totally unnecesary* in the small clause, we are going to have to let these apply to unsaturated adjectives.

The small clause denier may well find ways to make the composition work here. But the function composition approach raises many questions. Why does it apply to small clauses and not infinitives (recall, Jacobson used it for infinitives, not small clauses)? Once we have this mode of composition in our tool-kit, we would need something in the grammar that says when to apply it and when not to: that composition is "hands-off" and type-driven is non-negotiable.[14]

The small clause denier might retort: the claim that small clauses lack existential closure operators[15] is just as stipulative. Well, the choice is the following: do we think we are going to find independent motivation for applying a special composition rule to put small clauses together with their complements or for the idea that small clauses lack functional heads? I'm betting on the latter.

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[13]This actually ignores the world argument, which is of course the crucial thing here. I assume a thorough semantics could easily handle this.

[14]Chung and Ladusaw (2004) make the case that certain morphemes can trigger different compositional strategies. The small clause denier would have to look for something along these lines to tie function composition to.Morzycki (2005b), relatedly, suggests that function composition is available below the word-level, in composing meaningful features bundled on heads. His is a proposal that regulates the mode of composition available, like Chung and Ladusaw, in a potentially profitable way.

[15]Putting aside perhaps those PPs *inside* small clauses that can introduce closure.

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