NULL COMPLEMENTS: LICENSED BY SYNTAX OR BY SEMANTICS-PRAGMATICS?*

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In a companion paper to this one (Iten *et al*. 2004), we discuss the syntax and semantics of sentences like (1):

(1) Null Complement Containing Sentences
a. Aryn followed
b. Marie-Odile promised
c. Corinne left
d. Samir found out at midnight
e. I applied
f. They already know
g. He volunteered
h. Abdiwahid insisted
i. I suppose
j. Paul gave to Amnesty International

We argue that the semantics of a null complement spot in such sentences is given by a free variable, which may either occur free (so that the null complement is interpreted like a deictic) or bound (so that the reading of the whole utterance is quantificational). We also propose that the syntax is what one sees on the surface: there aren't empty categories which are complements to the verbs, and there isn't unpronounced ordinary syntactic material either. So, though the semantics is "as of" a free variable, we suggest that there is no "item" in the syntax which does this job.

In this paper we focus on a different issue about null complements, namely what licenses them. The issue of licensing arises because not all verbs can take null complements: e.g., *Joan locked, I consider* and *He vacated* are quite bad. Indeed, not all verbs which allow null complements do so on every sense of the verb in question. Thus (1e) is okay in the sense of *applied for a job*, but not in the sense of *applied the bandage*; and (1f) is fine when *know* takes a proposition, but it's ungrammatical when it is knowing a person that is at issue. (If one finds homophony here – i.e., two different verbs that sound the same– one would put the point as follows: there can be two verbs which sound the same, and yet, even where those verbs have related meanings, the two may

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differ in terms of permitting null complements.) Thus the question arises: Why do the verbs which allow null complements do so, and why do verbs which don't allow null complements not do so?

1. A Key Background Idea

Our focus in this paper will be on grammatical non-subjects – direct and indirect objects, and certain adjuncts –that can be "left implicit", in a sense to be explored. Our question is when they may be left implicit, and why. We want to begin with two background claims, however, against which the phenomenon of null complements arises. Indeed, without these background claims in place, one can't even get our question about licensing off the ground, let alone present a compelling answer to it.

The first background idea is that verbs come with a semantic frame. (The term is borrowed from Grimshaw 1979, though we use it in a broader, more vague sense.) This frame, described by what is sometimes called a "valence description" for the verb, specifies the linguistically inherent participants in the process, state, or event that the verb denotes. For example, the verb *lock* denotes an event with two linguistically inherent participants: the agent who does the locking, and the thing which gets locked. Another example: the verb *follow* denotes an action with two linguistically inherent participants as well, the follower and the thing followed. We hope the notion of "linguistically inherent" will become clearer as the paper progresses, but for now the rough idea is this: the action of locking inherently involves the agent and the thing locked; moreover, that these two participants are inherent in this action type is reflected, in English, in semantically marked properties of the verb *lock*. This is captured by saying that the participants are not just inherent, they are linguistically inherent.

The second crucial background idea is that sometimes one or more linguistically inherent participants, whose participation is specified in the semantic frame of a verb, need not have – as one says – a "phonologically realized" correspondent in a (nonetheless fully grammatical) sentence containing that verb.[1] Some prima facie plausible examples, including associated frames, follow:

(2) a. Verb: 'follow'
b. Semantic Frame: [Linguistically inherent participants = Agent, Theme]
c. Surprising example sentence: 'Aryn followed'

(3) a. Verb: 'promise'
b. Semantic Frame: [Linguistically inherent participants = Agent, Action]

[1] We speak of being 'phonologically unrealized', and of complements being absent from 'overt syntax', purposely leaving it open whether there is unpronounced syntax here, or whether the omission is not just phonological but also syntactic. As noted at the outset, our own view happens to be that the complement is wholly absent at the level of syntax. But whether we are right about that does not matter for present purposes.

c. Surprising example sentence: 'Marie-Odile promised'

(4) a. Verb: 'leave'
b. Semantic Frame: [Linguistically inherent participants = Agent, Place]
c. Surprising example sentence: 'Corinne left'

Notice that in the case of each verb, the suggested semantic frame calls for two linguistically inherent participants, and yet the respective example sentence – which is fully grammatical – contains a corresponding (overt) syntactic item for only one of them. That's the surprising bit: an element of structure that is required by the grammar, is "missing" in some sense, yet the resulting sentence is well-formed. In particular, there is no phonologically realized NP complement in (2), no phonologically realized clausal complement in (3c), and no phonologically realized *from*-adjunct in (4c). Put another way, there seems to be a failure of isomorphism between linguistic levels: the verbs semantics, as per the semantic frame, specifies two linguistically inherent participants for the denoted event/action/process, but in some fully grammatical sentences there is no (overt) constituent in the syntax for one of them.

Most of the present paper tries to sort out when and why this failure of isomorphism is permitted. But rather than accepting that null complements exist, and trying to explain where they may and may not occur, one can reject the very idea of null complements – in particular by rejecting one or more of these background claims, e.g., that they have the frames indicated above.

One radical way of denying that the frames in (2-4) are accurate, is to deny that verbs have semantic frames at all – maybe maintaining that it is merely a feature of the world that (say) following involves a follower and something followed, rather than being a linguistically marked feature of the verb *follow*. The idea of a semantic frame can seem plausible when what it states is which participant roles *must* be "phonologically realized". However, when we recognize that 'Aryn followed' is well-formed, and then we say that *follow* nevertheless has a semantic frame with two linguistically inherent participants, the evidential ground for introducing frames at all starts to look decidedly shaky. The "radical" way of denying the accuracy of (2-4) involves taking this evidential shakiness very seriously, concluding that semantic frames just don't exist – hence there can be no phenomenon of a "mismatch" between semantic frame and surface syntax, there being no semantic frames. Indeed, notice that without verb-specific valence descriptions, there is no way to distinguish the foregoing cases, which are purportedly surprising and hence in need of explanation, from the perfectly usual case in which speakers do not describe every aspect of, or even every participant in, a process, state or event. For instance, the act of locking involves not just an agent and a patient, but also an instrument (e.g., a key), a place at which the locking occurs, a purpose that rationalizes the locking, and so forth. Arguably, indeed, these are metaphysically necessary participants in a locking event; thus in some sense, they may be no less "inherent" than the participants listed in (5). (For further discussion, see Iten et al. 2004.)

(5) Verb: 'lock'
Semantic Frame: [Inherent participants = Agent, Patient]

There is, however, simply no need to explain why speakers don't inevitably "phonologically realize" all of *these* participants – the surprising thing would be if speakers did mention all of them. But then, if the second participant listed in (2-4) is on equal footing with all the other (merely metaphysically) necessary elements of those actions, then there is nothing especially odd about leaving out a phonological correspondent for it.

Regarding this radical reaction, we want first to grant that there is a genuine issue here, about where "meaning-facts" end and "world-facts" begin. (Here is a familiar sort of example of this genuine issue: Is the fact that podiatrists practice medicine a fact about podiatrists only, or also a fact about the meaning of the word *podiatrist*? What about the fact that podiatrists are not licensed physicians?) However, despite recognizing the problem of demarcating lexical content from mere world knowledge, and the closely related problem of distinguishing analytic from synthetic truths, we have three reasons for putting this radical reaction aside. First, we are convinced that there is a grammatical contrast that is missed if we do not distinguish the grammatically marked participants from those which are, just in fact as it were, involved (even necessarily involved) in the state, event or process. Thus, as will emerge again below, in English *promise* does allow null complements, but *lock* does not; and neither verb allows the *subject* to be omitted in declarative sentences. But if all participants are of equal standing, as far as grammar is concerned, why shouldn't they all be equally open to omission? Also, in Spanish and other languages, the corresponding verbs both *do* allow subject omission, and both *do* allow complement omission. (In Spanish, the verb corresponding to *lock* can appear without a subject, and without an object.) This feature of comparative grammar cannot be explained -- or even described, in a pattern-revealing, general way -- if one refuses to countenance semantic frames. Second, semantic frames are required to capture generalizations about what type of complement, content-wise, a verb can take. As Grimshaw (1979) notes, syntactically *think, amazing, wonder* and *find out* all take S-bar complements. But semantically, they select for different contents. *Think* can only take a proposition, *wonder* only a question; *amazing* can take a proposition or an exclamation, while *find out* can take a proposition, an exclamation, or a question. This contrasting behavior must be noted somewhere, and semantic frames for the various verbs are just the place to do it. Finally, and wholly compelling for present purposes, our intended interlocutors will presuppose that there are semantic frames assigned by the grammar to verbs, disagreeing only about which verbs get which frames, and about what exactly is specified therein. In what follows, then, we will take it as read that verbs do get marked for linguistically inherent participants.

Well but, there is another way to deny the accuracy of the worrisome semantic frames, without "going radical" and rejecting altogether semantic frames (or more precisely, rejecting altogether the notion of semantic frame

which is in play here). One can say that there are really *two* verbs at play in the cases in question, both pronounced the same way. One has a two-participant semantic frame, the other has a one-participant semantic frame. This amounts to accepting the first background idea, but rejecting the second. Applied to *follow*, the idea would be that there are two homophonous verbs pronounced /falo/, one captured by (2b), the other captured by (6b):

(6) a. Verb: 'follow'
b. Semantic Frame: [Participant = Agent]

As a final step to explaining away the alleged phenomenon, (2c), *Aryn followed*, will be claimed not to be an example of the verb described in (2b) after all. In which case, (2c) isn't a "surprising" example of a use of *this* verb. Instead, *Aryn followed* is an example of the verb described in (6). Thus there is simply no need to explain why a verb having semantic frame (2b) allows *Aryn followed*: the fact is, *that* verb does not allow *Aryn followed*. (As one typically puts this, there is the transitive verb and the intransitive verb, and the former never appears without an NP complement.)

There are good reasons for not appealing to ambiguity here, however. First, if we really had mere homonyms in this case, it would be a mystery why their meanings overlap so closely. Why should the intransitive *follow* involve the transitive relation *following something*, for instance? (Think of the genuinely ambiguous *split*. The intransitive colloquially means to leave. The transitive means to hive in two. Why isn't the semantic distance between $follow_{TR}$ and $follow_{INTR}$ just as great, if the latter are really just homonyms as well?) Equally a mystery would be why the sound /falo/ should not regularly correspond to two sounds in other languages, which is precisely what happens with the genuinely ambiguous /splIt/. Finally, echoing a point made above, an important generalization would be lost if we assimilated *follow, telephone, cook, accept*, and so on to the genuinely homophonous *split*. We conclude that this second means of rejecting the background assumption fails as well, and hence that the sort of semantic frames offered in (2-4) are on the right track.

2. Fillmore and Groefsema on Null Complements

Our central aim in this paper is to present two (supposedly) competing accounts of what licenses null complements, one syntactic, the other semantico-pragmatic, and then to marry what we take to be best ideas from each account with new ideas and data. Our hope is to provide a more comprehensive account of what licenses null complements. Having rejected two means of dismissing the phenomenon altogether, we now proceed with our central question.

2.1 Fillmore: A Syntactic Approach

We begin with Fillmore (1986). As he stresses, one crucial element that needs to be accounted for is that, in English and many other languages, not all verbs are

like *follow*, *promise* and *leave*. Some verbs seemingly require that, when they appear in a grammatical sentence, each participant listed in their semantic frame be phonologically realized. Null complements are simply not allowed with these verbs. Recall *lock*, for example. Its semantic frame identifies two linguistically inherent participants, the agent who does the locking, and the thing locked. But, whereas *Aryn followed* is fine, (7) is simply ungrammatical in English. Similarly, (8) and (9) are ill-formed:

(7) * Catherine locked
(8) * Rob guaranteed
(9) * Steven vacated

These last examples serve to highlight another point stressed by Fillmore (1986): verbs which have quite similar meanings can nevertheless differ as to whether they permit a null complement. *Promise* permits them, but the semantically close *guarantee* does not; *leave* permits them, but its semantic cousin *vacate* does not.

On the basis of this data, Fillmore's approach to null complement licensing is to understand them as being permitted/prohibited by syntactic restrictions. Syntactic rules of omission are very familiar: e.g., English imperatives obligatorily omit subjects, as a matter of syntax. Thus sentences (10-11) are well-formed not so much because one can "figure out" who the intended subject is, as per a semantico-pragmatic account of what licenses this omission, but because English grammatically marks the imperative construction as permitting (nay, requiring) an omission that is disallowed in the indicative mood:

(10) Buy some milk while you're out
(11) Don't vote for that guy

Fillmore's idea with respect to null complements, however, is that it is not a construction (e.g., imperative), but a particular lexical item that encodes the restriction/permission for omission. The syntactic restriction is specific to the lexical item: the verb on a sense. Fillmore (1986) writes: "conditions for the omission of non-subject complements are limited to particular lexically defined environments" (95). Or again, "omission is authorized by the lexical item" (97).[2]

To introduce some notation, the idea is that a verb – or more precisely, a verb-on-a-sense – is assigned a feature, along with the semantic frame:

(12) [± omit a complement]

[2] Jane Grimshaw adopts a similar approach. She writes: "The next problem is to find a way to distinguish between predicates which occur with null complements (such as *find out* and *know*) and predicates which do not (such as *discover* and *figure out*). The distinction between them is evidently a syntactic, not a semantic one" (1979: 296). See also Grimshaw (1979: 291).

The feature captures whether a linguistically inherent participant may optionally go unrealized, at the level of overt syntax.

2.2 Groefsema: A Semantico-Pragmatic Approach

As noted, there are two obvious advantages to treating the null complement syntactically, and specifically via features assigned in the lexicon. Both advantages emerged above. First, this explains why some verbs *do not* allow null complements. If what drove omission were wholly pragmatic, one would expect that all verbs would be subject to it – when the context was right, and enough information was being conveyed, any verb should be able to have a linguistically inherent participant go phonologically unrealized. But, as noted, *lock* simply cannot occur without a complement, no matter how clear it is that a particular door is in question.[3] The same kind of point holds for verbs like *vacate, darn, discover,* etc. Second, the syntax-based account explains why verbs with very similar meanings differ in terms of their omission potential. Though it's true that there are certain semantic groupings of verbs that allow complement omission – *remember/forget, lead/follow,* etc. – it is nevertheless possible to find nearly synonymous words, one of which permits null complements, the other of which does not. Above, we saw the contrast between *promise*, which allows omission, and *guarantee* which does not. Similarly, we noted *leave* versus *vacate*. There are numerous other examples:

(13) Similar meaning, Different omission profile
a. 'Samir found out' versus *'Samir discovered'
b. 'Abdiwahid insisted' versus*'Abdiwahid demanded'
c. 'I already looked' versus *'I already sought'
d. 'She'll never stop trying' versus *'She'll never stop attempting'
e. 'I suppose' versus *'I maintain'

So, it clearly can't be just pragmatics alone. And, to the extent that these verbs do have the same meaning, it seems that it cannot be context-invariant semantics together with pragmatics which determines whether omission is permitted. This supports having [± omit a complement] being *syntactically* marked in the lexicon.

Despite the foregoing problems for a semantico-pragmatic approach, Groefsema (1995) argues that such an explanation of the phenomenon of null complement licensing *is* viable, if we go below surface semantic resemblance. In particular, she proposes that conceptual structures of the kind defended by Jackendoff (1983, 1990) allow sufficiently fine-grained discrimination between verb meanings to capture differences in omission licensing. Put in our terms, the idea is that semantic frames state rather more than what (2b-4b) provided: a verb can specify as well what kind of thing its linguistically inherent participants are,

[3] Actually, that overstates things. As will emerge below, 'lock' and the like actually can be used without a complement. They are attested in corpus studies. And they can occur in constructions like 'Some people merely close, others lock'. We discuss this point below.

and even specify that the participant must be, not some *type* of thing, but a specific *instance* of that type. The underlying suggestion is that distinguishing verb-meanings more carefully, we will realize that "near synonyms" (as Fillmore would label the examples given just above) are semantically different enough to explain their distinct behavior, vis-à-vis omission potential. Specifically, some verbs put more restrictions on their inherent participants than others. In a similar vein, Groefsema suggests that if we adopt a more refined pragmatic theory – e.g., Relevance Theory – to accompany the more fine-grained semantics, pragmatics too will help explain what complements can and cannot be omitted.

Groefsema's specific proposal is this. Verbs may occur with a null complement when either (A) the verb puts a selection restriction on the inherent participant such that this gives us an interpretation that is, crudely speaking, "optimally relevant" or (B) the rest of the utterance makes immediately accessible an assumption (or assumptions) which gives an interpretation that is "optimally relevant".[4] Here is an example of variety (A). Suppose we want to know why (14) is well-formed.[5]

(14) We have already eaten

What licenses the omission of *a meal* here? Groefsema's proposal is that hearing the verb *eat* causes the hearer to access the semantic frame for this verb. Crucially, she continues, this semantic frame contains not just the Conceptual Structure item EAT, but also (because of the selection restriction) the item FOOD. Groefsema then writes: "Since EAT and FOOD make immediately accessible assumptions about meals being the main occasions of eating food for most people, MEAL is an immediately accessible enrichment of the implicit argument" (1995: 153). Thus, because this assumption is so easily accessible, the selection restriction on the inherent participants alone leads to an interpretation that is "optimally relevant".

Her example of case (B) runs as follows. Compare (15a) and (15b).

(15) a. Paul gave to Amnesty International
b. ?Paul gave to Ann

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[4] Rather less crudely, the demand is that the interpretation be in accordance with the Principle of Relevance, according to which "Every act of ostensive communication communicates the presumption of its own optimal relevance". (Sperber & Wilson 1986: 158) Since our discussion of Groefsema's ideas will not hang on such details, we simplify here.

[5] For reasons which needn't detain us here, we think that 'eat' is a poor example. Specifically, we have argued (Iten *et. al.* 2004) that verbs like 'eat', which are read as obstinately existential when they appear without a complement, are really intransitives. On our view, to use Fillmore's now familiar jargon, there are no indefinite null complements. But this detail is inessential for present purposes, so we do not insist upon it here.

Why can *money* be easily omitted in (15a), but not in (15b)? Groefsema provides an answer in terms of semantics and pragmatics. Let's start with the latter sentence. The semantic frame for *give*, says Groefsema, "does not put a selection restriction on the type or instance of the THING given" (1995: 153). Thus all (15b) provides us with are the Conceptual Representations GIVE, PAUL and ANN. And, Groefsema adds, these three do not make immediately accessible any assumptions about what kind of thing was given – in particular, they do not make MONEY immediately accessible. Hence the resulting interpretation of (15b) is not optimally relevant, so on those grounds the omission is not licensed. Crucially, adds Groefsema, no additional syntactic marking is required to capture this example: semantics and pragmatics together explain, on their own, why omission is not permitted in (15b). In contrast, (15a) affords access to GIVE, but also to an encyclopedic entry for *Amnesty International* – which latter entry makes immediately accessible the assumption that people donate *money* to this organization. The resulting interpretation is optimally relevant, so (15a) passes the test in (B), and omission is permitted in this case. Again, no special syntactic marking on *give* is necessary.

The proposal raises an immediate question, however. Groefsema maintains that selection restrictions can add assumptions, and that the rest of the utterance can as well. But why can't *non*-linguistic elements of the speech context do this too? This question is pressing because, without a good answer to it, the foregoing explanation of why omission is less acceptable in (15b) than in (15a) threatens to collapse: if elements of the non-linguistic context could add assumptions too, in a way pertinent to null complement licensing, then there should be contexts in which *Paul gave to Ann* is fine. Specifically, goes the objection, if "being optimally relevant" were really the issue, and things beyond selection restrictions and utterance make-up could contribute to relevance, then any context in which the discourse situation made clear enough that money was at issue should, it seems, be one in which *money* can be omitted from (15b). So, we don't get the prediction that (15b) is unacceptable unless there is a ban on non-linguistic stuff contributing assumptions when evaluating for optimal relevance. Groefsema's response to this line of objection is that non-linguistic context just is not able to make it clear enough which participant the hearer is meant to recover. *Relying on non-linguistic context,* she suggests, *inevitably leads to unnecessary processing effort, so that the resulting utterance will not be optimally relevant*. (Call this "Groefsema's Dictum".) Put in other words, it will always be more relevant to indicate *linguistically*, and *within the sentence itself*, which item is in question – either via a verb with the right selection restrictions, or via appropriate words. So omission with neither of these latter sentence-internal linguistic clues to the intended interpretation is ruled out – not as ungrammatical but as, well, insufficiently relevant.

3. A Novel Synthesis

Having presented both Fillmore's and Groefsema's views on licensing, we turn now to our own position. The first point we want to make is that the question

"What licenses null complements?" can be read in two ways. It can be taken to be a question about expression types, i.e., about what the grammar does (or does not) generate. Call this Q(A). Alternatively, it can be read as a question about which in-context utterances are acceptable/felicitous. Call this Q(B). Put otherwise, Q(A) is about which verbs (or verb senses) allow null complements, and of which kind, *as a matter of their context-invariant grammar.* A different issue, Q(B), is when a speaker may make use of this type-marked potential for omission. These two questions are not unrelated, of course. If the type, as a matter of context-invariant grammar, is ill-formed when an inherent participant goes unrealized in a sentence, then utterances of that sentence will be grammatically unacceptable in some sense. But an utterance in-context may not allow a participant to go unrealized, even though the type of which it is an utterance *is* generated by the grammar. An example will help to clarify our point here. It seems that the grammar generates *Marie-Odile promised*. Thus in one sense, a null complement is licensed for this sentence type. This partly answers Q(A). But even so, the utterance context must be right if (3c) is to be *uttered* felicitously: if no one has any clue what has been promised, this omission will not be licensed.

(3) c. Marie-Odile promised

To provide the discourse conditions under which one is allowed to use (3c) is precisely to answer Q(B).

It's also worth stressing, in order to forestall a natural objection, that to say that an expression isn't generated by the grammar is not to say that it will be uninterpretable, or unusable. Utterances of patently ungrammatical sentences like **Seems sleeping the baby* can be easy enough to interpret, and can and do occur in discourse – but this sentence type is ungrammatical nonetheless. Similarly, say we, for *Phyllis locked*: a non-native speaker could easily use this to assert successfully that Phyllis locked the salient door, but this would still be ungrammatical speech. Indeed, not only is such a use possible in principle, as hinted in note 3 corpus studies have found uses of verbs which supposedly do not grammatically allow null complements, appearing without complements. (See Cummins & Roberge 2003, 2004 for discussion.) This speaks to the communicative potential of such verbs, but, say we, it doesn't establish that the usage is grammatical: ungrammatical expressions appear frequently in speech. (Still more on this below.)

Given that there are these two ways of taking the question "What licenses null complements?", notice that it is possible to understand the syntactic and semantico-pragmatic accounts of licensing as actually addressing different issues. In particular, even if the syntactic story were entirely correct about which sentence types with null complements are generated by the grammar, this alone will not answer Q(B), the question of what the utterance situation must be like for sentences of that kind to be appropriately deployed. A semantico-pragmatic story will still be needed to address this latter issue. Realizing this, the following position in logical space opens up: a Fillmore-type syntax story is necessary, to

sort out which sentence types are grammatical; but a Groefsema-type semantico-pragmatic story is also necessary, to sort out when a null complement sentence can be acceptably used. In brief, both views are right, and both are about "licensing", but they provide correct answers to different questions. That is the idea we now wish to explore at length. For this "marriage" to work, however, Groefsema's account needs to be corrected, and in ways that allow it to be fused with Fillmore's. Our next step, then, will be to see what is right/wrong with her view, and to forge a correct comprehensive account on that basis.

Groefsema purports to be offering an account of which expressions – which *types*, rather than utterances of those types – license omission, and why. That is, she seemingly intends to be addressing Q(A). We think, however, that she is simply bringing the wrong sort of resources to bear, if that is the explanadum. Her appeal to rich decompositional semantics and Relevance Theory is sure to help us understand when speakers can take advantage of the grammatically specified potential for omission, in a speech performance. But it cannot do the job, when the question is about the competence.

We have two reasons for saying this. One has to do with comparative syntax. The other has to do with a prediction due to Groefsema's general orientation, including especially her "dictum": her approach incorrectly would rule out other varieties of omission, including in particular sub-sentential speech. We discuss these in turn. (Since our aim in this section is to build a positive synthesis, we will be brief in our criticisms.)

First, some points about cross-linguistic variation. Groefsema herself notes:

> Although this proposal makes the right predictions for English, not all languages behave in the same way with regard to understood arguments. For example, languages such as Chinese, Japanese and Korean allow linguistically unrealized arguments far more freely than English. On the assumption that understood arguments can be accounted for in terms of the ease with which an addressee constructs a conceptual representation of a linguistic input, one would expect this explanation to be language independent. However, although the proposal made here seems necessary to account for the behaviour of understood arguments in English, no claim is made as to it being sufficient to account for when understood arguments occur in different languages (1995: 159-160).

This seems to us a quite surprising admission on Groefsema's part. If her proposal only works for English verbs, and not for the very same verbs in other languages, then hers just cannot be the right *kind* of approach – because pragmatics, in the sense she has in mind, is surely universal. And, not to put too fine a point on it, her proposal does not work for other languages.

In particular, languages seem to fall on a graded scale, between very liberal about omission, and very conservative about it. Gujarati, a language in the Sanskrit-family and spoken in Western India, falls on the "very liberal" end. It allows null complements with *purchase/buy*, *kill*, *take*, and *draw*. It even

allows a null complement on verbs borrowed from English, such as *boil*, that prohibit null complements in the home language. Examples follow:

(16) Null Complement Examples in Gujarati
a. Anita e kharidyou
Anita *past* purchase
'Anita purchased'
[Said while looking at a vase on a table]

b. Kone maryu?
Who kill.*past*?
'Who killed?'
[Said upon coming across a dead deer in the forest]

c. Te biji var lidhu?
You second time take.*past*
'Did you take (i.e., serve yourself) a second time?'
[Said to spouse, when seeing her drinking tea in the morning]

d. Kone doryu? Anita e doryu
Who drew? Anita *past* draw
'Who drew? Anita drew.'
[Said when there is a drawing visible on a table]

e. Prafulla boil-kare ché
Prafulla boil.*pres*. *prog*.
'Prafulla is boiling'
[Said as an answer, when the issue is what is happening to the milk][6]

As we've seen, English is rather more conservative. It does not allow null complements with any of the verbs in (16). Spanish seems to fall in-between. Thus the sentences below, from Southern Cone Spanish, are fine:

(17) Ya puse para vos
Already $put_{1st, sing}$ for you

(18) ¿Estás tomando por segunda vez?
$Are\text{-}_{2nd, sing}$ drinking for second time

But, in contrast with the corresponding Gujarati sentences (16b, d, and e), in Spanish (19) and (20) are borderline at best, while (21) is clearly ungrammatical:

[6] Our thanks to Prafulla and Kirit Kothari for their help with the Gujarati examples.

(19) ?? ¿Quién mató?
Who killed

(20) ?? ¿Quién dibujó?
Who drew?

(21) * Prafulla está herviendo
Prafulla is boiling

But, say we, surely the lexical entries for these verbs are the same as far as their meaning goes. And, just as surely, the pragmatic principles which govern conversation apply just the same to speakers of Spanish and Gujarati. Hence, if Groefsema's approach were right, there would be no such variation between languages, with respect to the same verb.

A second problem with Groefsema's general orientation is that it gives the wrong result when applied to other sorts of omission cases. In particular, it just is not true that it is inevitably more relevant to indicate linguistically, and within the sentence, which item is in question – either via a verb with the right selection restrictions, or via appropriate words. Groefsema's Dictum – which, recall, she appealed to in defending her approach from the objection that every verb should allow null complements sometimes – is just not true. Sub-sentential speech provides many examples in which, though the speaker could have found a complete sentence to convey her thoughts, it is most economical to have the hearer notice an environmentally salient object. For instance, to take an attested case, saying the bare DP *Both hands* to a child who is about to pick up a very full glass of milk can be the most relevant way of ordering the child to use both hands. And a conversation could easily begin: *–Married? -Yes. -Children? -Two. One boy, one girl.* Groefsema's Dictum conflicts with this empirical fact. For instance, it would predict that the most relevant expression would have to be, in the first example, something like *Use both hands* or *Hold the glass with both hands.* (See Stainton 1994 for extended discussion of non-sentence use, within the context of Relevance Theory. And see Elugardo & Stainton (2001, 2004) for a detailed defense of the genuineness of the phenomenon.)

It's worth stressing that, given that the Dictum is not true, the earlier line of objection reappears: Groefsema cannot explain why there are, in some languages (e.g. English), verbs which do not allow null complements at all. As we've stressed, there is no situation in which the English *Abdul locked* is grammatical. Yes, there are situations in which this could be used effectively to communicate a proposition. Yes, there are curious constructions in which *lock* (and just about every other verb) can appear without a complement. But this sentence itself is nonetheless ungrammatical. The problem for Groefsema is that, without the Dictum, her account provides no reason to rule out in principle circumstances in which this sentence would be an optimally relevant way of communicating, about a certain door, that Abdul locked it. (Indeed, as an example, non-native speakers can use *lock* without a complement, to make perfectly successfully assertions. And, as noted, the translation of *Abdul locked*

is used all the time in languages like Gujarati and Spanish.) So, she cannot explain why the sentence is ungrammatical.

In sum, the bar against omission is not pragmatically flexible, nor context sensitive. But Groefsema's story predicts that it should be. So, we reject Groefsema's account, understood as an answer to Q(A), about what the grammar does (or does not) license. One cannot accurately explain the generalizations about which complements can be omitted by appeal solely to semantics and pragmatics, even when the former is fine-grained and the latter is sophisticated. Instead, we need a syntactic marker like [+ omit a complement].

This is emphatically not to say that the feature [+ omit a complement] can be added freely, of course. There surely are semantic constraints on which verbs get it. Our point is merely that semantics alone cannot explain the difference between verbs that do and verbs that do not allow complements to be omitted.

That said, we do not reject Groefsema's account altogether, since we think it provides the heart of an answer to Q(B), about which sentences with complements omitted make for acceptable/felicitous in-context utterances. Considerations of semantics and pragmatics emphatically *are* crucial for that issue.

So, what licenses omission in cases like (1 a-j)? Our answer is that, besides exhibiting a semantic frame, verbs also are marked, in the lexicon, for whether they allow omission or not. (Or better, a verb-form-plus-a-sense is marked for omission or not.) It is this latter claim which provides our answer to Q(A): with respect to what expressions are generated by the grammar, Fillmore is right that syntax (rather than semantics/pragmatics) does the licensing. As for Q(B), Groefsema is very much on the right track: what permits a speaker to omit a complement in a speech situation has everything to do with (i) the fine-grained semantics of the verb and (ii) the aim for optimal relevance. As a result, we urge that a comprehensive answer to the question of licensing null complements should marry both the syntactic and the semantico-pragmatic approaches.

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