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ABSTRACT. An important debate in the current literature is whether "all truth-conditional effects of extra-linguistic context can be traced to [a contextual variable at; LM] logical form" (Stanley 2000, p. 391). According to Stanley, the only context-sensitive objects are (potentially silent) variable-denoting pronouns or pronoun-like items, which are represented in the syntax/at logical form (putting pure indexicals like *I* or *today* aside). According to Recanati (2002), there are, in addition, (possibly variable-denoting) items that are freely introduced by non-grammatical, optional pragmatic processes like 'free enrichment' (potentially) into certain linguistic representations. This paper shows that Recanati's position is not warranted, since there is an alternative line of analysis that obviates the need to assume that processes like free enrichment exist. In the alternative analysis, we need Stanley's variables, but we need to give them the freedom to be or not to be generated in the syntax/present at logical form. This kind of optionality, which has nothing to do with pragmatics-related optionality and is sometimes linked to non-pragmatic requirements of lexical items, not only allows for a satisfactory account of Recanati's data but also simplifies the theory of the grammar.

1. INTRODUCTION.

A recent debate in this journal addresses the question of whether truth-conditional effects of extra-linguistic context should be traced to a contextual variable in the syntax/logical form (LF) (Stanley 2000), or on the contrary, at least some such effects should be captured with purely pragmatic mechanisms (variously called 'free enrichment', 'modulation', etc.) (Recanati 2002; see also Recanati 2003). Stanley's position is strong in the sense that it implies that <u>all</u> truth-conditional effects of extra-linguistic context are traceable to variables at LF, a position that has been argued to be problematic (see references and discussion in §4.2). Recanati's position is strong in the sense that it allows for the postulation of powerful, unconstrained pragmatic mechanisms that can influence truth-conditions, lacking in predictive power and thus in explanatory adequacy, and in that it entails a more complex picture of the grammar (see §3).

The goal of this paper is to argue that there is a middle ground between these two strong positions which is more satisfying than either of them in several respects. The proposal I make below makes use of contextual variables at LF, but it gives these variables an option: be generated in the syntax or not –without postulating unconstrained pragmatic mechanisms that can influence truth-conditions. Allowing contextual variables to be optionally generated in the syntax, which is argued in §3.2 not to be that different from what other lexical items normally do, has important

consequences for the foundations of truth-conditional pragmatics (see §5). Let me note, though, that the proposal I make is still more in the spirit of Stanley´s than it is in Recanati´s.

Another important point of this paper is that the empirical facts that Recanati uses to argue for his position are not correct. This is the subject matter of §2. That is, in this paper I argue that the facts do not show that we need the kind of analysis that Recanati envisions, but also, more strongly and more interestingly, that even if the facts were as Recanati presents them, there is no need to postulate free enrichment or other mechanisms like it.

The paper thus contributes significantly to the debate about the representation of contextually-provided constituents at LF, even though I will end on a negative note saying that, given frameworks like Jacobson's (1999, 2000), we are not yet able to decide on principled grounds whether contextual variables should be postulated at LF or not.

2. THE FACTS.

2.1. *Recanati's unarticulated constituents.*

Another way of saying what this paper does is to say that it argues against the existence of Recanati's (2002) Type A unarticulated constituents. In this section, I present the kinds of unarticulated constituents that Recanati assumes and discuss some of the facts that will be important later. As a reminder, bear in mind that some of these facts are questioned in §2.2.

Unarticulated constituents are silent objects that are part of the proposition expressed by the utterance. In addition, they may or may not be contextually-provided. At least some contextually-provided unarticulated constituents, as discussed below, appear at some level of linguistic representation. Such is the case of, e.g., the domain restriction of quantificational expressions in works like Martí (2003), Stanley (2000) or Stanley and Szabó (2000), where these restrictions are represented as silent pronouns in the syntax; such is the case for the ´standard of comparison´ for context-sensitive adjectives like *tall* in Recanati. According to him, however, there are other kinds of contextually-provided unarticulated constituents, which, depending on one's implementation, may not get a linguistic representation at all, or they may be represented at levels such as LF' (see §3.1).

The first kind of unarticulated constituent assumed by Recanati is the metaphysical kind. Non-linguistic reasons dictate that every dancing event and every raining event happen somewhere, and that every eating event involves an edible thing that is eaten. The place of dancing in (1), the place of raining in (2), and the edible thing being eaten in (3) are metaphysical unarticulated constituents of the propositions expressed by the utterances of these sentences:

(1) Mary danced
(2) It's raining (cf. Perry 1993, 1998)
(3) He's eating

Recanati (2002, p. 306) puts it this way:

> "It's a metaphysical fact that every action takes place somewhere. The action of dancing is no exception. It follows that, if we say that Mary danced, we describe

> a state of affairs (Mary's dancing) which is bound to involve a place. The place is not articulated in the sentence—when we say 'Mary danced', we do not say that she danced in place l, nor even than she danced somewhere. No place is articulated in the uttered sentence, yet in virtue of the fact that the sentence describes an action, a truth-maker for that sentence is bound to involve a place. The place, therefore, is a (metaphysical) unarticulated constituent of the statement that is made by an utterance of the sentence 'Mary danced'."

One may wish to think of these unarticulated constituents by making reference to our concept of 'dance', or our concept of 'eat'. For example, it is because of the way our concept of 'eat' works (I do not claim to know where this concept comes from, or how it is formed) that we know that, if somebody is eating, whoever is eating is eating something edible. Examples (2) and (3) will be important both in this section and in §3. Metaphysical unarticulated constituents are not represented linguistically in Recanati's system and are not contextually provided.

In addition to being metaphysical, unarticulated constituents can be communicative. Again, here are Recanati's (2002, p. 306) words:

> "For something to count as an unarticulated constituent in the *communicational* sense, it must be part and parcel of what the speaker means by his or her utterance. Thus, the speaker who says 'It's raining' means that it's raining where she is (or at some other contextually given place) […] On the hearer's side, the unarticulated constituent must be identified on pains of not arriving at a proper understanding of the utterance."

Communicational unarticulated constituents are contextually-provided and come in two varieties. Whereas both of them are intrinsically part of what the speaker means by his or her utterance, the two differ in what happens with the proposition when they are not contextually provided.

I discuss the second class first, since the reader will be more familiar with it. Type B unarticulated constituents are characterized as follows: failure to contextually provide them prevents a proposition from being expressed. In other words, the contextual provision of a type B constituent is required for the sentence to denote. Classical examples of type B unarticulated constituents are the comparison class for adjectives like *short*/*tall*, *small*/*big*, etc. and the location for adjectives like *local*, discussed in Mitchell (1986) and Partee (1989):

(4) John is short
(5) John visited a local bar

If (4) is to denote a proposition, its context must provide a standard of comparison for John. If this standard is set by the height of basketball players, then a speaker/hearer of (4) will mean/understand that John is short compared to basketball players. Compared to a different standard, he might actually be tall; for example, if the standard of comparison is set by children attending kindergarten (in which case (4) would be false). Were no such standard of comparison contextually provided, (4) would fail to denote a proposition (??John is short for some standard of comparison). Likewise, if (5) is to denote a proposition, a location for the interpretation of *local* must be provided. Sometimes this reference location is the location of the speaker, so that (5) is understood to mean that John visited a bar that is local from the perspective of the

speaker. But other interpretations are possible, so that John might end up visiting a bar that is local from his own perspective, or from the perspective of someone made salient in the discourse preceding (5). Failure to provide such a reference prevents the sentence from denoting a proposition (??John visited a bar local from somebody's perspective). Note that it is a metaphysical fact that one is short or tall with respect to some measure, and that something is local with respect to something else, so that the standard of comparison in (4) and the location in (5) are metaphysical unarticulated constituents in addition to being of type B.

Recanati suggests to treat type B unarticulated constituents as syntactic variables. One can compare type B unarticulated constituents to cases with overt pronouns, also analyzable in terms of variables:

(6) He has just arrived

(6) also fails to denote if there is no salient male individual that can serve as the referent of *he*. Both type B unarticulated constituents in (4) and (5) and pronouns like *he* in (6) are, in Recanati's terminology, in need of 'saturation' (i.e., the provision of a referent for a variable). The comparison with overt pronouns is useful here because Bs, as I will refer to them from now on, can also give rise to bound readings, just like pronouns like *he*. Consider (7) and (8) (see Stanley 2000, p. 418 and Partee 1989, p. 344, respectively):

(7) Most species have members that are small
(8) Every sports fan in the country was at a local bar watching the playoffs

(7) has a meaning in which the comparison class needed for the interpretation of *small* varies with the species ('most species x have members that are small for x'), and *local* in (8) can be interpreted with respect to a different location for each sports fan ('every sports fan in the country x was at a bar local from x's perspective watching the playoffs').

Type A unarticulated constituents differ significantly from Bs in that failure to contextually provide them results in a "less specific proposition" (in a sense to be made clear below) instead of preventing the sentence from expressing a proposition. The location of *rain*, for example, when silent, is a type A constituent in addition to being a metaphysical constituent. First consider (9), which establishes that the location of *rain* can be contextually provided:

(9) {Luisa to Klaus, while checking the weather forecast for their weekend destination, Paris}
It's raining!

One possible interpretation of (9) is that it is raining in Paris, where the place of *rain* is contextually provided in the context of the sentence and is silent. But a contextual provision of the place of *rain* is not necessary for the sentence to denote. Consider (10), from Recanati (2002, p. 317):

(10) {Rain has become extremely rare and important, and rain detectors have been disposed all over the territory. Each detector triggers an alarm bell in the Monitoring Room when it detects rain. There is a single bell; the location of the triggering detector is indicated by a light on a board in the Monitoring Room.

After weeks of total drought, the bell eventually rings in the Monitoring Room. Hearing it, the weatherman on duty in the adjacent room shouts:}
It's raining!

The weatherman, because he is in the adjacent room, cannot see which bell has rung, so he doesn't know where it is raining. Still, his sentence denotes, and it denotes that it is raining somewhere. I will disagree with Recanati on this description of (10) in §2.2 (on *rain*, see also Perry 1993, 1998).

Recanati makes a similar case for intranstive *eat*. Consider (11), based on Recanati (2002, p. 315):

(11) {Klaus, Luisa and Andrew are in the kitchen. They have been discussing the dangerous mushrooms they have just gathered in the forest. Luisa to Klaus:}
Look! He's eating!

Here Luisa means that Andrew is eating dangerous mushrooms, which are contextually salient in the preceding discourse. The 'object' of intransitive *eat* is a type A unarticulated constituent, in addition to being a metaphysical constituent, because failure to contextually provide it does not prevent a proposition from being expressed but results in a less specific proposition (example based on Recanati 2002):

(12) {John is anorexic. His parents come into the kitchen. John is eating, but they do not know what. John's mother to John's father:}
Look! He's eating!

John's mother means here that John is eating something, but she cannot know what that is, since she has just come into the kitchen and has not been able to see what John was putting in his mouth.

The less specific proposition that results in these cases is one with existential force, so later I will sometimes refer to these readings as existential readings.

Even though As differ from Bs in this crucial respect, they, just like Bs, can give rise to bound-variable-like interpretations. Consider (13) and (14), from Stanley (2000, p. 415) and Recanati (2002, p. 326), respectively:

(13) Everytime John lights a cigarette, it rains
(14) John is anorexic, but whenever his father cooks mushrooms, he eats

(13) can have a reading in which the place of rain varies with times at which John lights a cigarette ('all times i at which John lights a cigarette are times at which it rains in the location in which John lights a cigarette at i'), and in (14) what John eats can vary with the food that his father cooks ('all times i at which his father cooks mushrooms are times at which he eats the mushrooms cooked at i').

Recanati suggests different ways of treating As, one of which involves variables (albeit variables that do not appear until after LF, as discussed in more detail in §3.1). The clear advantage of treating them as variables is that it is then easy to explain why As give rise to bound-variable-like interpretations, since such cases can then be analyzed as involving bound variables.

I will now show that some of the descriptive claims about these examples are incorrect, hence not relevant for an argument for the existence of As, and that in an

additional case there is an alternative description that obviates the need to make use of As.

2.2. *Not all the facts about A are right*[1]

The right empirical generalization about intransitive *eat* seems to be, as has been noted in the literature before (see, e.g., Partee 1989), that there is no free-variable-kind or bound-variable-kind interpretation for its 'object'; rather, it only gives rise to the existential interpretation. This can be seen with the help of (15):

(15) {Tobias and Sally have spent the afternoon in the forest gathering poisonous mushrooms, which are now lying around on their kitchen table. Tobias and Sally are in the living room discussing information from their field guide about poisonous mushrooms. Their three-year-old son David comes into the living room from the kitchen chewing something}

Sally: Look! He's eating!

Tobias: Don't worry. I can see from here what he was doing in the kitchen and he isn't eating.

If the 'object' of intransitive *eat* were context-sensitive, then Sally should be able to mean that David is eating dangerous mushrooms, which are very salient in the preceding context. Furthermore, Tobias should be able to mean that David isn't eating dangerous mushrooms. There should be no problem at all with the exchange in (15); however, the exchange is not felicitous, except in one interesting situation. It is revealing that some of the speakers consulted commented that there is one and only one situation in which the exchange is felicitous: that in which David is not eating anything (maybe he is chewing gum). This suggests that the silent 'object' of intransitive *eat* is not context-sensitive, which in turn means that it is not an A. Also, bound-variable interpretations do not seem to be possible. Consider (16):

(16) #Whenever Sally cooks mushrooms, John never eats. Instead, he eats pasta with tomato sauce

The second sentence in (16) cannot be a continuation for the first sentence. However, the opposite is predicted if it was possible to bind the 'object' of intransitive *eat*. This is so because, in that case, the first sentence would mean, 'whenever Sally cooks mushrooms, John never eats the mushrooms that she cooks', which is compatible with John eating pasta with tomato sauce in those situations[2].

The infelicity of (16) can be accounted for if the 'object' of intransitive *eat* gives rise to existential interpretations only, which again suggests that it is not an A.

[1] This data was obtained with the help of four native speakers of English who were presented with sentences in context and asked to judge the appropriateness of the sentences in those contexts. They were also asked to explain in some cases where it was supposed to be raining, or what someone was eating. The speakers were not informed of the theoretical claims or generalizations that these data are used to support/refute.

[2] This reading is available when transitive *eat* takes a pronoun as its object:

(i) Whenever Sally cooks mushrooms, John never eats them. Instead, he eats pasta with tomato sauce

Both (11) and (14) should then be treated as special cases of the existential interpretation[3, 4].

I do not dispute that the unarticulated place of *rain* in the sentences in §2.1 can give rise to bound-variable-like interpretations[5] or to free-variable-like ones, but I do dispute the conclusion that Recanati draws from (10), since there *does* seem to be a place that is contextually provided in that example, namely, *the territory*. That is, there is an obvious analysis of this example which does not differ from the analysis of (9) in any relevant respect, and which predicts the sentence to mean 'it's raining in the territory'[6].

This means that there is no convincing case for claiming that the unarticulated place of *rain* is an A, since there is no evidence that, when it is not contextually provided, it gives rise to an existential interpretation. In other words, unless new examples are brought up that indicate the contrary, the unarticulated place of rain is a B (in addition to being metaphysical) and is thus amenable to a treatment that is parallel in all relevant respects to the treatment of pronouns like *he* (i.e., as a syntactic variable).

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[3] Breheny (2003a) suggests that intransitive *eat* is context-sensitive and that a bound-variable reading of its 'object' is available in (i):

(i) Every boy ate before joining the others

We are to imagine a scenario in which the boys "have to eat some particularly horrible concoction tailor-made to their individual phobias in order to join a secret society". (i) is claimed to mean that each of the boys "ate their individual horror meal". I am not sure what to make of this fact, since Breheny (2003b) suggests that intransitive *eat* is <u>not</u> context-sensitive and that it might not be so easy to obtain the bound-variable reading in (i).

[4] These remarks apply to examples in Wilson and Sperber (2000) and Carston (2003: 203-4) as well. Thanks to Jason Stanley for pointing out these references to me.

[5] Running the 'negation' test we run above for *rain* results in examples like (i):

(i) {John is an Englishman who travels a lot, though he has never been outside Europe. Weathermen across the world are really interested in him because of the following puzzling discovery:}
(?) Whenever John lights a cigarette, it doesn't rain, but it rains in Calcutta

If the unarticulated place of rain can be bound, then (i) should give rise to a perfectly coherent reading, 'whenever John lights a cigarette, it doesn't rain in the place where he lights a cigarette at that time, but it rains in Calcutta'. However, for reasons that I do not understand yet, some speakers found that (i) was somewhat odd. Given that their judgement was that (16) was worse, I will take it to be the case that the place of *rain* can be bound.

[6] As Orin Percus (p.c.) correctly points out, this analysis presupposes that it is plausible that the meaning of a sentence like (i) is 'it is raining somewhere in the territory':

(i) It's raining in the territory

I think that this is indeed the case. For example, (i) can be followed by material that is only compatible with such an interpretation:

(ii) It's raining in the territory, though it is not raining everywhere in the territory

It is harder to agree to this in examples like (ii), though I take it that this is because of purely non-linguistic reasons (Paris is perhaps too small a place for it to rain in some parts of it but not in others, given the way rain works):

(ii) It's raining in Paris

3. THE THEORY

In §2.2, I argued that the facts that Recanati brings to bear on the existence of As are irrelevant for this purpose. However, this is not the strongest position one could take against the existence of As, because all that would be required is that new facts are brought to bear in the matter, facts that behave in the right way. Hence, what is needed is an argument that even if such facts were found, there is still no reason to claim that As exist, and, consequently, that there is no reason to introduce whatever analytical tools are needed to explain their behavior.

I do not know of such facts, but, for the sake of argument, I will pretend that they exist. I will speak about RAIN and EAT, whose behavior is exactly the behavior that Recanati ascribes to *rain* and *eat* (see §2.1.). This section is then an argument that, in order to deal with RAIN and EAT, it is not necessary to complicate the theory of grammar with the existence of As and with A-related analytical tools, whatever they are.

3.1. *Recanati's analysis of 'RAIN' and 'EAT'*

For the sake of presentation and because, as discussed in §2.1, it offers a straightforward way of dealing with bound readings, I choose a treatment of As which involves variables. I do this even though Recanati considers different possible treatments and does not choose among them. In the end, however, it will not matter which implementation of As one chooses, since my argument here is that there is no need to postulate As to begin with, no matter what the particulars of the implementation that one chooses. As we will see, in the alternative I propose, purported A-cases are B-cases 'with a twist'[7].

Assume an extra level of linguistic representation and call it LF'. This level of representation shares with LF the property that they are both grammatical levels, that is, that semantic interpretation happens after them. However, they are quite different in other respects. LFs are mapped into LF's via pragmatic processes that can add variables (which can be free or bound, just like variables present at LF). These pragmatic processes are entirely optional and are triggered by the context (that is, a pragmatic process x of this kind takes place for a sentence s iff the context of utterance of s contains y, for y some property). It is crucial to understand here that nothing in the grammar/nothing linguistic triggers the presence of A-variables[8] in LF'; what triggers them is properties of the context of utterance. This will be the major difference between what I have to say and what he has to say[9].

[7] One can perhaps construct this paper´s opposition to Recanati´s ideas as an opposition to the particular implementation of As I choose to discuss here, which involves variables. However, the argument in the paper is stronger than that. Suppose one accepts the existence of As and decides not to use variables but to use some other kind of device/implementation. The proposal to come in §3.2 still undermines this position: A-cases can still be treated as B-cases with a twist, no matter how A-cases are treated. The crucial question here is what the analysis of the purported A examples (i.e., RAIN and EAT) is. I offer an analysis in which one doesn't postulate As, whereas Recanati assumes the existence of As. Whether he chooses variables or something else as implementation for As, it is still the case that there is an alternative analysis in which no As are postulated.

[8] I will speak of 'A-variables' when I want to refer to the device that I have chosen to implement type A unarticulated constituents (i.e., As) with. By the same token, B-variables are the devices I have chosen to implement Bs with.

[9] François Recanati (p.c.) says that LF' as he conceives of it is not a grammatical level of representation but has to do with "the *thought* expressed by the utterance, rather than with the meaning of the sentence (or, to put it another way: LF' may be a grammatical level, but then the language is not English, but

To talk about variables introduced in the syntax/at LF in this context is to talk about variables introduced before LF'. B-variables are variables in the syntax/at LF according to this description, whereas A-variables are not.

Introducing an additional level of representation for the treatment of As allows Recanati to explain why As, as far as we know, are never overtly realized (i.e., are always unarticulated): LF' does not input PF, and A-variables can only be introduced at LF'. Additionally, some sort of representation like LF' must be invoked if we are to explain that As can give rise to bound-variable-like interpretations[10].

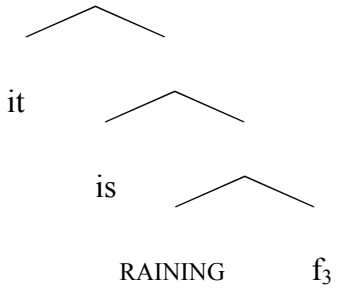
Let us consider first those cases in which an A-variable remains free. Consider (17) and (18) (cf. (9) and (11), respectively):

(17) {Luisa to Klaus, while checking the weather forecast for their weekend destination, Paris}
It's RAINING!

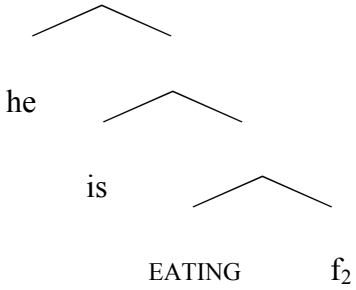
(18) {Klaus, Luisa and Andrew are in the kitchen. They have been discussing the dangerous mushrooms they have just gathered in the forest. Luisa to Klaus:}
Look! He's EATING!

The interpretation of sentences containing RAIN and EAT is context-sensitive (when their A-variable is unbound). A-variables are freely introduced at LF'; here, the trigger is that a place is contextually salient in (17) and a food is contextually salient in (18). So (19) and (20) are the representations that result from this process of free enrichment:

(19)



(20)



In (19), 'f_3', an A-variable, is free and receives as its value a contextually salient function from zero-place predicates to zero-place predicates such that when this function takes the predicate RAINING as its argument, it gives back the predicate

Mentalese)". I don't fully understand what this means, which is the reason for choosing to say in the text that LF' is a level of linguistic representation. Even if one understands LF' in Recanati's way, my critique of his system (that it is unnecessarily complex) still holds: he has to appeal to a more complex system, enriched with LF' (taken not as a linguistic level but as something else), whereas I don't. See also note 14.

[10] Except if we advocate Jacobson's (1999, 2000) framework. See remarks on this in §5.

'raining in Paris'. So, while the trigger for the introduction of this function variable into LF' is the fact that the context preceding (17) makes a place salient, the value of the A-variable here is not that place but a function whose output 'contains' it[11]. This constituent is unarticulated in the sense that it is only present at LF'. In (20), 'f_2' is a function from one-place predicates to one-place predicates such that when this function takes the predicate EATING as its argument, it gives back the predicate 'eating dangerous mushrooms'. So, again, the trigger for the presence of the A-variable is the contextually-salient food, though the value assigned to the variable is not the food itself but a function whose output 'contains' the food[12].

Consider now (21) and (22), the examples that give rise to the existential interpretation:

(21) {Rain has become extremely rare and important, and rain detectors have been disposed all over the territory. Each detector triggers an alarm bell in the Monitoring Room when it detects rain. There is a single bell; the location of the triggering detector is indicated by a light on a board in the Monitoring Room. After weeks of total drought, the bell eventually rings in the Monitoring Room. Hearing it, the weatherman on duty in the adjacent room shouts:}
It's RAINING! (cf. (10))

(22) {John is anorexic. His parents come into the kitchen. John is eating, but they do not know what. John's mother to John's father:}
Look! He's EATING! (cf. (12))

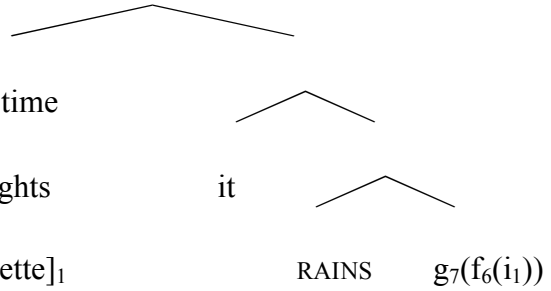
In (21) and (22), nothing in the context triggers an unarticulated constituent, since the context does not make any place or food salient. No A-variable is introduced at LF', and LF=LF' for these examples. One understands that it rains somewhere in (21) because of metaphysical reasons, and it is also because of metaphysical reasons that one understands that John is eating something in (22).

Finally, we need to look at the analysis of the bound cases. Consider (23) and (24):

(23) Every time John lights a cigarette, it RAINS (cf. (13))
(24) John is anorexic, but whenever his father cooks mushrooms, he EATS (cf. (14))

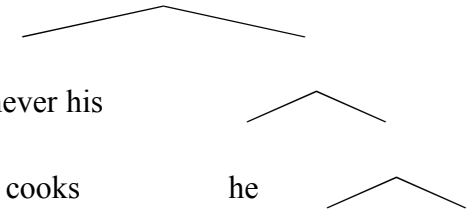
Here Recanati's analysis makes use of complex A-variables, as shown in (25) and (26):

(25)



[11] These functions are known as 'variadic functions' and resemble closely the semantics for adverbs and adverbial expressions in McConnell-Ginet (1982).
[12] Notice that this analysis entails that EAT in (18) as well as below is actually intransitive; that is, it denotes the set of individuals who eat (see Recanati 2002, pp. 313-315 and §3.3 below).

(26)



In (25), 'i_1' is a time variable bound by the quantifier over times *every time John lights a cigarette*. 'f_6' is a function from times to locations, a 'bridging function'. 'g_7' is a function from locations l to functions from zero-place predicates to zero-place predicates such that when these functions take RAINS as their argument, they give back 'rains at l' as output. This gives rise to the desired reading, 'all times i at which John lights a cigarette are times at which it rains in the location in which John lights a cigarette at i'. In (26), 'i_1' is a time variable bound by the quantifier over times *whenever his father cooks mushrooms*[13]. 'f_5' is a function from times to food cooked at those times, again a bridging function. 'g_4' is a function from individuals x to functions from one-place predicates to one-place predicates such that when these functions take EATS as argument, they give back 'eats x' as output. This gives rise to the desired meaning, 'all times i at which his father cooks mushrooms are times at which he eats the mushrooms cooked at i'.

3.2. *But there is no need for A!*

The system that Recanati proposes is summarized in **Table 1**:

Overt[a]	**Covert**	
overt pronouns	*short*, *local*	**B**[b]
no	*EAT*, *RAIN*	**A**[c]
no	*EAT*, *RAIN*, *short*, *local*	**Metaphysical**[d]

Table 1 Recanati's system

[a] I.e., phonologically present
[b] Properties of Bs and B-variables: (in non-bound-variable-like-interpretations) Bs must be provided by context; B-variables can be bound or unbound at LF.
[c] Properties of As and A-variables: (in non-bound-variable-like-interpretations) As do not have to be provided by context; A-variables can be bound or unbound at LF'.
[d] Properties of metaphysical constituents: not present at any level; existential interpretation

This table includes overt as well as covert items. For example, overt pronouns are overt versions of B-variables, in that B-variables and overt pronouns share all properties except their phonological realization. There are no overt versions of A-variables or metaphysical constituents. Looking at the covert items, there are B-variables, which have been illustrated here with adjectives like *short* or *local*, and there are A-variables, which have been illustrated with RAIN and EAT. All of these also fall into the metaphysical unarticulated constituent category.

[13] This treatment of *whenever*-clauses is surely too simple, in that it disregards the debate about the quantificational force of *ever* and the 'ignorance' flavor of *ever*-clauses (see Dayal 1997; von Fintel 2000; Jacobson 1995, among others). I take it that these issues are orthogonal to the matter at hand.

The wish to simplify this system is prompted by the unsatisfactory answer that certain questions it raises receive. For example, there is no independent evidence that would make the postulation of the level of LF' more principled[14]. True, postulating an extra level of representation with the properties of LF' (namely, that PF sees no reflex of what goes on at LF'), allows Recanati to provide a reason for why A-variables never have overt realizations, and it allows him to express a crucial difference between As and Bs: Bs don't give rise to the existential interpretation under any circumstances. But the fact that in another sense As and Bs look rather similar (i.e., in that they can give rise to bound and free readings) is treated rather uneconomically: another level for the representation of variables is introduced. One feature of this analysis that will be maintained in the simplification has to do with metaphysical unarticulated constituents: they will be part of classification, and the question of why they are never overtly realized receives a straightforward answer: they are not represented at any level of linguistic representation.

The simplification proposed here is in **Table 2**:

Overt[a]	**Covert**	
overt pronouns	*EAT*, *RAIN*, *short*, *local*	**B**[b]
no	*EAT*, *RAIN*, *short, local*	**Metaphysical**[c]

Table 2 Proposed reduction

[a] I.e., phonologically present

[b] Properties of B-variables: B-variables can be bound or unbound at LF; B-variables are optionally generated in the syntax

[c] Properties of metaphysical constituents: not present at any level; existential interpretation

In the simplified system, there are no Type A unarticulated constituents, only Bs and metaphysical constituents. B-variables in this system, however, are slightly different from Recanati's B-variables: they may or may not be generated in the syntax, the virtues of which we will get to momentarily. Metaphysical unarticulated constituents will be blamed for existential interpretations the way Recanati does.

If there are no As, there is then no need to postulate A-variables, nor is there a need for an additional level of representation for them[15]. There is also no need to ask the question why A-variables are never overtly realized. Hence, no questions about differences between A-variables and B-variables arise.

Let us look at the analysis of RAIN, and let us start by enumerating the possibilities available for (27). I leave it as an exercise for the reader to work through the details of the analysis of EAT:

(27) It RAINS/It's RAINING

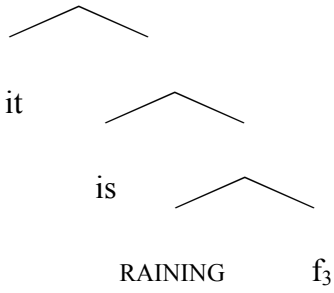
If B-variables are given the option to be generated in the syntax or not, then one derivation for (27) generates a B-variable with RAIN/RAINING. We obtain the

[14] Recanati (2002, p. 340) equates LF' with Chomsky's (1976) Semantic Representation (SR), so there is at least historical precedent. Still, this is not a good reason for postulating LF'. Additionally, François Recanati (p.c.) suggests that independent evidence for this more complex theory comes from the analysis of transfer (as in, *The ham sandwich wants to pay*) and metaphor. It is impossible for me to deal with the vast literature on transfer and metaphor in this paper, but I remain to be convinced that there is a powerful argument that the only satisfactory analysis of these phenomena involves the kind of (complex) theory envisioned by Recanati.

[15] Or whatever other implementation one chooses.

representation in (28), which is very similar to (19) except that (28) is an LF representation:

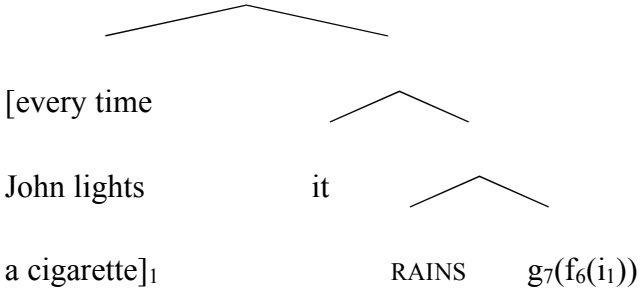
(28)



Suppose now that the context of utterance makes available an appropriate referent for this B-variable, as was the case in (17). Then this referent is assigned to this variable, so that, just as before, 'f_3' takes RAINING as its argument and gives back as output 'raining in Paris'. In a second possible derivation, however, no referent for this variable is available in the context. This derivation crashes in the same way that the derivation for a sentence with an overt pronoun crashes if there is no referent for the pronoun in the context (recall (6)).

In a third possible derivation, a more complex B-variable is generated in the syntax, so that we obtain the LF in (29), which is very similar to (25), except that (25) is an LF' representation:

(29)



In this derivation, a time variable is bound by the quantifier over times *every time John lights a cigarette*. The functional variables 'f' and 'g' have to be provided referents for, and only then can this derivation be successful. The details are as before. This is of course the derivation of (23).

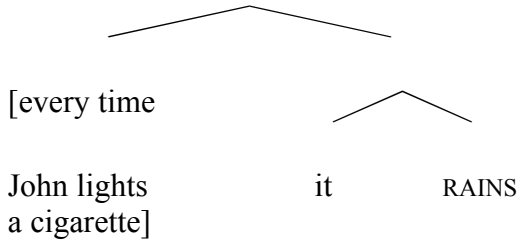
In a fourth derivation, no B-variable is generated next to RAIN/RAINING. Since there is no variable, there are no requirements on what the context must provide for it. Recall, however, that in addition to the possibility of being a B-variable, the place of RAIN is always a metaphysical constituent (i.e., if it rains, it must rain somewhere). It is because of this that (21) is interpreted existentially.

There are more derivations to consider. Crucially, in this system, it is not the case that properties of the context (e.g., the availability of a referent for a variable or not) trigger anything in the grammar. Whether a B-variable is generated next to RAIN/RAINING or not is something that happens automatically, simply because the system is designed in this way. So there is a derivation, for example, in which no B-variable is generated next to RAIN/RAINING, and yet there is a referent contextually provided that, had there been an appropriate B-variable, could have been its antecedent. This is one possible derivation of example (17), but, why is it unsuccessful? That is, why is it that the RAINING sentence in (17) does not mean just 'it's raining somewhere'? Here I appeal to Gricean principles. *A priori*, this is a possible derivation for the

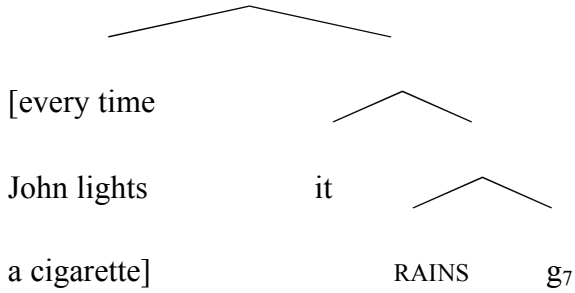
example, but it has to compete with a derivation in which Luisa's utterance is much more relevant to the situation at hand. Klaus could take her to mean that it's raining somewhere, but that would not be relevant to anything they have said or done. There is nothing non-standard in this appeal to Gricean principles.

There are also derivations in which there is a quantifier in the sentence that, had there been an appropriately complex B-variable, would have bound this variable. However, in these derivations, there is no such B-variable, either because there is no variable at all or because the variable is not complex enough. These derivations lead to representations such as the following:

(30)



(31)



(30) gives rise to the reading, 'every time John lights a cigarette, it rains somewhere' (whether or not the context makes available an appropriate referent for a potential B-variable). Recanati (2002, p. 333) himself claims that this reading exists; it is felicitous in a situation in which John's lighting a cigarette has the (rather bizarre) consequence of causing rain in some place or other. (31) crashes for purely semantic reasons: even if there is an appropriate referent provided contextually for 'g', a semantic type mismatch results, since 'g' needs locations as its argument, and RAINS is not a location.

The crucial difference between Recanati's system and the one proposed here resides in what bears the responsibility for optionality. In Recanati's system, that is the responsibility of the pragmatics, of the properties of the context of utterance. In the system proposed here, the pragmatics has the same responsibility it has in the interpretation of pronouns, and only that. That is, given a variable at LF, there has to be a variable-assignment, which depends on the context of utterance, that provides values for this variable. But the pragmatics does not trigger anything, in the sense of Recanati. Whether a B-variable is generated in the syntax or not is left completely free. The system tries out different derivations, and only those that comply with all the principles of grammar, including/in addition to Gricean principles, are successful.

Actually, the treatment of B-variables that I am advocating here bears a close resemblance to the way non-pronominal, articulated items are treated in standard theories of syntax. B-variables are in fact lexical items, listed in the lexicon together with everything else that is listed there, including, say, *the*. For the derivation of a particular sentence, one may or may not choose to include *the* in the initial lexical array (or numeration, to use Minimalism terminology). If it gets chosen as part of this array,

then it will be generated in the syntax and in order to arrive at a successful derivation all sorts of grammatical requirements (including/in addition to those imposed by Gricean principles) will have to be complied with. For example, *the* must be generated in a place where it is possible to combine it with its sister, given their lexical entries and semantic interpretation principles. Also, *the* induces presuppositions of existence and uniqueness, so the context of utterance must be such that these presuppositions are satisfied. One may choose not to include *the* in one's initial array, in which case a number of different possibilities arise. If, e.g., the other words in the array are only *woman* and *left*, the derivation will crash for semantic reasons. If, on the other hand, the other words are *elephants* and *left*, then there is a successful derivation for the example. In this latter case, whether one chose *the* to be included in the array or not didn't *per se* cause problems, but of course the meanings that result are different. The same is true in the case of RAINS/RAINING above, though of course the requirements that must be satisfied for B-variables are different from the requirements that must be satisfied for *the*, and the 'metaphysical possibility' is something that arises for RAIN but not for *the*. So, in a sense, the simplification advocated here is much better than I presented it: we do not even need to specify that B-variables can be generated or not in the syntax, that is something that comes for free once one considers them to be lexical items.

A refinement to this picture will be introduced in §4.1. That refinement has to do with two facts. First, English lacks RAIN and EAT (that is, as far as I know, it lacks words that behave in the crucial respects like RAIN and EAT), but it has words like *rain* and *eat*, whose properties must be accounted for. Second, English has words like *notice* and *short*, with properties that we will discuss in more detail in that section. The refinement will be that certain lexical items impose requirements on their arguments that are sensitive to the arguments' status as B-variables.

Related to this is the following issue, which we will come back to in §4.1 as well. One may understand the reduction I have proposed here as less important than I claim it is. The change from a system that has As/A-variables, Bs/B-variables and metaphysical constituents to a system that has only Bs/B-variables and metaphysical constituents can be understood as a change into a system that has two kinds of B-variables (those that are generated in the syntax and those that are not) and metaphysical constituents[16]. That is, it would almost be simply a cosmetic change. But that would be the wrong way to understand it. For one thing, the new system simplifies the theory considerably, since there is no need to appeal to LF'. For another, it is not true that two kinds of B-variables are introduced in it. There is only one kind of B-variable: regular variables. In certain cases, those variables are generated in the syntax, and in other cases they are not. We have seen above that exactly the same happens with other lexical items. In §4.1, we will see that there are cases in which a B-variable must always be generated next to a particular verb/adjective, and cases where no B-variable can. But that is a property of the verbs/adjectives themselves, not of the B-variables.

Having presented the basics of the analysis and reflected on how it compares to Recanati's proposal, it is useful to consider Recanati's (2002, p. 326-8) negative answer to the question of whether the system can be reduced further. The question is: why not further reduce the system and get rid of metaphysical unarticulated constituents as well? Recanati and I blame existential interpretations on them, but couldn't the same result be obtained via existential closure by default of B-variables when they are not bound by a quantifier and when no referent is contextually provided? I side with Recanati here: positing existential closure by default raises serious problems. For

[16] Thanks to François Recanati (p.c.) for bringing this possibility to my attention.

example, if overt versions of B-variables are not subject to it, why should covert ones be? That overt B-variables are not subject to existential closure by default can be seen in the fact that a sentence like (32) never means 'somebody is bald':

(32) He is bald

Consideration of examples like (33) makes Recanati's point stronger. (33) never means 'John is in someone's home', so why would it be that some B-variables are subject to existential closure by default while others are not?

(33) John is home[17]

3.3. *'Rain', 'eat' and other constraints on the lexical semantics of context-sensitive verbs and adjectives*

For the sake of clarity, I want to finish this section by emphasizing two things. First, the proposal in §3.2 is not a proposal about an existing set of facts. As pointed out at the beginning of §3, it is a proposal about *RAIN* and *EAT*, which, as far as I know, do not exist. There still great theoretical interest in the proposal made here: it is an alternative to a theory that postulates As, and as such it must be considered if one wants to argue for As. Also, I take it that it is probably not hard to find verbs that behave like *RAIN* and *EAT* in the relevant respects.

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[17] Perhaps the following quote from Carston (2002: 204) is a predecessor of the proposal in this section:

> "Another way out might be to propose that the sentence ´I have eaten´ (and innumerable others) has a variety of logical forms, each with an array of variables, differing in number and type (including one with none), marking possible contextual completions. In the case of a sentence with four variables for different constituents, that means sixteen linguistically provided logical forms to cover the range of cases."

This quote comes in the context of a discussion in which worry is expressed at the fact that approaches like Stanley´s (2000) have to posit quite a number of variables at LF, including variables for place, manner, or time.

I don´t know if what I have done in §3 is to develop Carston´s ideas into a full proposal. Be that as it may, let me note that the problem that Carston points out in the above quote slightly misrepresents approaches like Recanati´s by implicating that Stanley´s approach, not Recanati´s, involves a multiplicity of representations. For an approach like Recanti´s must say that an utterance of ´I have eaten´, on a particular occasion, gives rise to one of the propositions that the Stanley/Martí account gives rise to by making use of a particular number of variables; and, on a different occasion, Recanati must say that an utterance of ´I have eaten´ gives rise to another one of the propositions that the Stanley/Martí account gives rise to by making use of another particular number of variables (this is the case whether one takes LF´ to be a level of linguistic representation or not, as long as LF´ is a level of representation). In other words, Recanati also needs sixteen representations for ´I have eaten´, though they are LF´ representations.

So, in terms of the number of representations that must be available, the two approaches do not differ. What they *do* differ on is on, so to speak, the ´search space´ that each account presupposes. Because As are there only if the context dictates so, speakers do not have to search in the way they do in the proposal in §3; so, for Recanati, there is no ´search procedure´, whereas for me, there is. What one has to weigh, then, is additional level of representation/additional kinds of object + no search procedure (Recanati) vs. no additional levels of representation/no additional kinds of objects + search procedure (me). That one needs to weigh these two possibilities is another way of putting what the point of this paper is.

Then, given the result from §2 that *rain* and *eat* are not to be analyzed in the way Recanati suggests, it is important to clarify what the proper account of their properties is, already hinted at in that section.

So recall from §2.1 that there is no evidence that *rain* gives rise to an existential interpretation, but that that is the only interpretation available for intransitive *eat*. *Rain* should be described as a zero-place verb, as in Recanati, but one whose place is either overt or filled with a B-variable[18]. *Eat* is two-ways ambiguous. In its transitive form, it requires its object to be overt; in its intransitive form, it requires its 'object' not to be a B-variable.

This treatment of *rain* and *eat* is one in which they are lexically sensitive to the presence of B-variables that combine with them in the syntax; the place that *rain* combines with in the syntax is, if covert, a B-variable, whereas intransitive *eat* rejects B-variables as sisters[19]. So certain lexical items, like *eat* and *rain*, may impose B-variable-related requirements on their sisters.

There are context-sensitive verbs (and adjectives) whose behavior can be described without mention of B-variables. *Notice* (and similar remarks hold for *finish*) never allows an existential interpretation, but it does give rise to bound-variable-like and free-variable-like readings, as shown by (34) and (35):

(34) Bill was nervously biting his nails. Everyone noticed (Dowty 1982)
(35) Every man who shaves off his beard expect his wife to notice (Partee 1989, p. 345)

In (34), what everyone notices is that Bill was nervously biting his nails; this information is introduced in the discourse preceding the relevant sentence and the behavior of the object of *notice* suggests that it is context-sensitive. In (35), the object is bound by the quantifier *every man who shaves off his beard*. In other words, *notice* is very similar to *rain*, but there is a crucial difference: in this case, it is more plausible to treat *notice* as always taking an object argument (as opposed to the place of *rain*; see note 18). Thus, something, whether overt or not, will always be generated as the object of *notice*.

Likewise, *short* and *local* never give rise to existential interpretations but do give rise to free-variable and bound-variable interpretations (recall examples (4), (5), (7) and (8)). The treatment here is like that for *notice*: *short* and *local* are two-place predicates, with an argument slot for the comparison class and the reference location, respectively.

The description of the behavior of context-sensitive verbs and adjectives suggests that their lexical semantics (and possibly that of other categories) can be sensitive to the B-variableness/B-ness of the items they combine with in the syntax. This opens up a number of interesting questions and predictions: what is the behavior of other items in English? Are there word classes according to sensitivity to B-variableness/B-ness? How do items in other languages behave? What (cross-linguistic) generalizations emerge? Are there default patterns? Does sensitivity to B-

[18] Another possibility is to treat *rain* as a one-place predicate with a place argument (which would force it to always have something next to it in the syntax, either a B-variable or an overt place. The better analysis is as in the text (which shares with Recanati the treatment of *rain* as a zero-place predicate), since it prevents us from having to postulate that *rain* is (perhaps infinitely) lexically ambiguous in order to deal with the time, manner, etc. of *rain*.

[19] If it turns out that the proposal in §3.3 needs to be invoked because *RAIN* and/or *EAT* are found to exist, the description of *rain* would be as follows: *rain* is a zero-place verb whose place is either overt or always filled with a B-variable (i.e., no optionality for *rain*).

variableness/B-ness correlate with other lexical properties? What aspects of the behavior of lexical items towards B-variableness/B-ness can/should we assume are determined by UG? An important prediction is that, if sensitivity to B-variableness/B-ness is a lexical matter, one and the same word could very well differ from one language to the next.

I do not claim to have answers to these questions here, but I do claim that one of the important virtues of the proposal in this paper is the fact that these questions can now be asked, as well as the fact that it is possible to find out whether the proposal is right by pursuing them.

4. CRITERIA FOR (UN)ARTICULATEDNESS

Recanati (2002, 2003) is, in part, an answer to the earlier paper by Stanley (2000), a paper that has been criticized, both by Recanati and by others, in part because of the proposal of the Binding Criterion, as in (36):

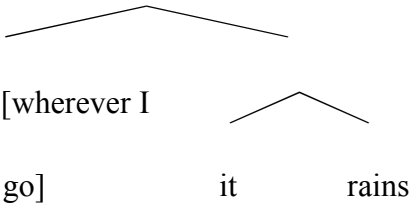
(36) Binding Criterion: A contextually provided constituent in the interpretation of a sentence S is articulated [i.e., present at LF; LM] whenever the role it fills can be intuitively 'bound', that is, whenever what fills the role can be made to vary with the values introduced by some operator prefixed to S
(Recanati 2002, p. 323; Stanley 2000, pp. 409-413)

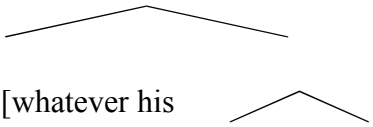
Stanley denies that there are any truth-conditional effects of context that cannot be traced to LF. Therefore, he assumes no As and no metaphysical constituents, and runs into problems in several places. He has trouble predicting existential interpretations, and as pointed out by Recanati (2002, 2003) and Cappelen and Lepore (2002), he seems to need too many variables at LF, or strange variables in some cases. Let us consider some of their examples, starting with (37) and (38):

(37) Wherever I go it rains
(38) Whatever his father cooks John eats

(37) has a reading in which the place of *rain* is intuitively bound, 'all places l such that I go to l are such that it rains in l', and (38) has a reading in which the 'object' of *eat* is bound, 'all foods x cooked by his father are such that John eats x'. Stanley is therefore forced to postulate variables for the place of *rain* and the 'object' of *eat* in these cases, but, as Recanati points out, there is a simpler analysis for these cases in which there is no variable at LF:

(39)



(40) 

In (39), the quantifier takes *it rains* as its argument and gives back '∃l…it rains in l' (i.e., the quantifier introduces the place of rain, fills this role with a variable, and binds it); likewise, in (40), the quantifier takes *John eats* as its argument and gives back '∃x…John eats x' (i.e., the quantifier introduces the argument of *eat*, fills this role with a variable, and binds it)[20]. These examples share the property that the thing being quantified over is the same kind of thing the quantifier in the sentence quantifies over: e.g., the thing being quantified over in (37) is the place of rain, and the quantifier is a quantifier over places. For these cases, then, there is no need to postulate a variable at LF, but Stanley's principle would seem to suggest that one must.

There are two additional sorts of problems that can be solved by following Recanati's suggestions for (37) and (38), which I now discuss.

There are cases where the kinds of variable that one must postulate if one follows (36) seem rather strange. Consider (41):

(41) {Sally is a confused mathematical anthropologist trying to find out if mathematical truths are universal. She summarizes her findings as follows:}
Everywhere I go, 2+2=4 (Cappelen and Lepore 2002, p. 273)

(41) has a reading in which the place of 2+2=4 (?) is quantified over ('for all places l such that Sally goes to l, 2+2=4 at l'). Given what we learned from the analysis of (37) and (38), all we have to say here is that *everywhere I go* is a function that adds a place role, introduces a variable for it, and binds it. The point here is not only that there is no need to postulate any variables at LF in order to deal with these cases, but that doing so is unwanted for other reasons (a variable for the place of 2+2=4 in (38)?). However, Stanley's principle would force us to assume such variables.

Finally, Cappelen and Lepore (2002, p. 274) argue that an indefinite-number-of-variables problem arises for Stanley, given examples like the following (cf. (41)):

(42) No matter where Sally goes, no matter when she goes there, 2+2=4

(42) has a reading in which both the place and the time of 2+2=4 (?) are intuitively bound ('for all places l and all times i such that Sally goes to l at i, 2+2=4 in l at i'). It seems that we can start adding 'bound variables' and never finish: the place can be bound, then the time, etc. This means that, if one follows Stanley, one probably has to postulate an infinite number of variables to be bound. Again, given what we learn from Recanati's treatment of (37) and (38), there is an easy solution to this problem: *no matter where Sally goes* and *no matter when she goes* are functions that add a place and a time role, respectively, introduce a variable for them, and bind them. There is no need to postulate variables at LF here.

Here I side with Recanati and defend the simpler analyses for these examples. That is, I do not assume Stanley's Binding Criterion, at least not in its strongest form. It seems better to assume a weaker version of it: a contextually provided constituent in

[20] It is of course also possible to analyze (37) and (38) with movement and traces.

the interpretation of a sentence S is articulated whenever the role it fills can be intuitively 'bound' and an analysis without the articulated constituent is impossible (where an analysis without the articulated constituent is of course not an analysis with an unarticulated constituent). This gives the right results for all the examples discussed in this paper[21].

Let me emphasize that my position is much closer to Stanley's than it is to Recanati's: whereas Recanati assumes that the pragmatics can directly determine properties of linguistic representations (e.g., LF'), both Stanley and I assume that this is not the case, or at least we are not convinced that there is any evidence for taking this strong position. My proposal is an intermediate position between Recanati and Stanley that still falls within the same ballpark as Stanley's.

Recanati, in trying to, like Stanley (2000) (see also §4.2), find a criterion that will tell us how and when to postulate unarticulated constituents, proposes the Optionality Criterion in (43):

(43) Optionality Criterion: whenever a contextually provided constituent is (truly) unarticulated [i.e., not represented at LF; LM], we can imagine another possible context of utterance in which the contextual provision of such a constituent would not be necessary for the utterance to express a complete proposition
(Recanati 2002, p. 323)

The Optionality Criterion is often at odds with Stanley's Binding Criterion; for example, it suggests that no variable is present at LF in the case of (13)/(23), repeated here, since there are contexts in which the sentence can be interpreted as 'every time John lights a cigarette, it rains in some place or other' (see Recanati 2002, p. 333):

(44) Every time John lights a cigarette, it rains

I do not assume the Optionality Criterion, simply because there are no truly unarticulated (i.e., Type A) constituents in my system, so there cannot be a criterion that says when to assume them or not.

5. CONCLUSION: TRUTH-CONDITIONAL PRAGMATICS AND THE DEBATE ABOUT THE LF REPRESENTATION OF SILENT, CONTEXTUALLY-PROVIDED CONSTITUENTS

Truth-conditional pragmatics is the view that

"various contextual processes come into play in the determination of an utterance's intuitive truth-conditions; not merely saturation – the contextual assignment of values to indexicals and free variables in the logical form of the sentence—but also free enrichment and other processes which are not linguistically triggered but are pragmatic through and through."
(Recanati 2002, p. 302)

An important consequence of the discussion in this paper is that, unless powerful evidence is given to support this thesis, foundational from the perspective of truth-conditional pragmatics, there is no reason for pursuing it. This is so because this paper

[21] This weak version of the Binding Criterion is different from Recanati´s (2002: 332) Weak Binding Criterion in that his is inteded to draw a differrence between bound and non-bound cases and in that he leaves the door open to analyses with As.

has removed an important realm of empirical motivation from the side of the truth-conditional pragmatist, the data pertaining to *rain* and *eat* (§2). Not only that, the paper has argued that even if this empirical motivation had not been removed, there are serious doubts with respect to the theoretical motivation for pursuing this thesis, since a simpler thesis is possible and accounts for the data (§3). Only a weaker version of the thesis seems tenable, namely, that in which metaphysical constituents are the only aspects of the intuitive truth-conditions of a sentence that do not get articulated at LF. As far as the data dealt with here is concerned, there is no reason to assume that there are processes like free enrichment, or any other pragmatic process that can affect the intuitive truth-conditions of a sentence/utterance. This is a significant blow to the truth-conditional pragmatist.

I want to finish with some (rather negative) thoughts on the debate about the LF representation of silent, contextually-provided constituents. The results in this paper suggest that there are silent, contextually-provided constituents that are indeed represented at LF (Bs), as well as metaphysical unarticulated constituents, which are not. It also suggests that the data can be accounted for without postulating other kinds of unarticulated constituents, such as As. The question is, given that As are out of the picture, is it possible to provide evidence that Bs in the form of contextual variables at LF must be postulated? And the answer here seems to be in the negative, and it is so because there exist treatments of pronouns in frameworks like Jacobson's (1999, 2000), with the possible extensions to silent Bs in Breheny (2003a, b). In this kind of framework, there are no B-variables as we know them, nor any other variables in the object language; still many of the properties of pronouns (and contextually-provided constituents) can be accounted for, as Jacobson shows in great detail in her work (e.g., their sensitivity to principles like Weak Cross Over). The price to pay for not postulating variables in the object language is that there must be rules that add argument slots and bind them when they translate syntactic information into meaning (e.g., Jacobson's z and g rules; Breheny adds the D-rule to deal with quantifier domain restrictions). In order to deal with those cases where a B-variable is not generated in the syntax, within the framework of ideas in §3.2, one could say, for example, that some argument-adding rule in Jacobson's system does not apply. Given this, and crucially assuming that an account of the *rain*-kind of examples can be developed in this system, what we should be looking for is ways to tell the two theories apart. In other words: the debate as framed by Recanati, Stanley and others (including me at the beginning of the paper) does not seem to be the right way to frame it. We shouldn't be asking whether there are As or not, we should be asking which treatment of Bs is better, one that postulates covert variables at LF or one that uses Jacobson's framework. I do not know which concrete facts will help us tease the theories apart, and I do not know how to weigh complexity in derivations (Jacobson) vs. complexity in representations (this paper). But I do know that a lot of the evidence must come from a much more in-depth study of the properties of different languages.

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REFERENCES

Breheny, R.: 2003a, 'On Bindability', *Proceedings of the Fourteenth Amsterdam Colloquium*, ILLC, University of Amsterdam, The Netherlands.

Breheny, R.: 2003b, 'A Lexical Account of Implicit (Bound) Contextual Dependence', *Proceedings of Semantics and Linguistic Theory 13*, CLC Publications, Ithaca, NY.

Cappelen, H. and E. Lepore: 2002, 'Indexicality, Binding, Anaphora and *a priori* Truth', *Analysis* **62**, 271-81.

Carston, R.: 2002, *Thoughts and Utterances. The Pragmatics of Explicit Communication*, Blackwell, Oxford.

Chomsky, N.: 1976, 'Conditions on Rules of Grammar', *Linguistic Analysis* **2**, 303-51.

Dayal, V.: 1997, 'Free Relatives and *Ever*: Identity and Free Choice Readings', *Proceedings of Semantics and Linguistic Theory 7*, CLC Publications, Ithaca, NY.

von Fintel, K.: 2000, 'Whatever', *Proceedings of Semantics and Linguistic Theory 10*, CLC Publications, Ithaca, NY.

Jacobson, P.: 1995, 'On the Quantificational Force of Free Relatives', in E. Bach, E. Jelinek, A. Kratzer and B. Partee (eds.) *Quantification in Natural Languages*, pp. 451-86, Kluwer, Dordrecht.

Jacobson, P.: 1999, 'Towards a Variable-Free Semantics', *Linguistics and Philosophy* **22**,117-84.

Jacobson, P.: 2000, 'Paycheck Pronouns, Bach-Peters Sentences, and Variable-Free Semantics', *Natural Language Semantics* **8**, 77-155.

Martí, L.: 2003, *Contextual Variables*, PhD dissertation, University of Connecticut, Storrs, CT.

McConnell-Ginet, S.: 1982. 'Adverbs and Logical Form', *Language* **58**, 144-84.

Mitchell, J.: 1986, *The Formal Semantics of Point of View*, PhD dissertation, University of Massachusetts, Amherst, MA.

Partee, B.: 1989, 'Binding Implicit Variables in Quantified Contexts', *Proceedings of the Annual Meeting of the Chicago Linguistics Society 25 (Part One: The General Session)*, 342-365.

Perry, J.: 1993, *The Problem of the Essential Indexical and Other Essays*, Oxford University Press, New York.

Perry, J.: 1998, 'Indexicals, Contexts, and Unarticulated Constituents', in D. Westerståhl et al. (eds.), *Computing Natural Language*, 1-11, CSLI Publications, Stanford.

Recanati, F.: 2002, 'Unarticulated Constituents', *Linguistics and Philosophy* **25**, 299-345.

Recanati, F.: 2003, *Literal Meaning*, Cambridge University Press

Stanley, J.: 2000, 'Context and Logical Form', *Linguistics and Philosophy* **23**, 391-434.

Stanley, J. and Z. Szabó: 2000, 'On Quantifier Domain Restriction', *Mind and Language* **15**, 219-61.

Wilson, D. and D. Sperber: 2000, ´Truthfulness and Relevance´, *UCL Working Papers in Linguistics* **12**, 215-54.