# Grammar vs. pragmatics: carving nature at the joints

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Comments welcome!

Abstract. The main point of the paper is methodological: the debate on the division of labor between grammar and pragmatics, as it pertains to so-called *pragmatic free enrichment*, needs to be better grounded empirically. Typically, philosophers of language, pragmatists and others working on pragmatic free enrichment consider only a reduced set of facts from English (if at all) to substantiate their claims. But looking at a reduced set of facts from English—or from any other language in isolation—can only afford limited (and, sometimes, wrong) results, because we can only see whatever this one language chooses to express (the problem with English can be worse: it is very impoverished morphologically). I look in detail at two phenomena that pragmatic free enrichment is currently taken to account for: adjectival fragments and the implicit object of certain verbs. In each case, finding out what native speakers of natural languages actually do turns out to be very informative: we find evidence that the implicit material is generated by the grammar, not provided for pragmatically. This methodology, crucial to linguistics and science in general, allows us to isolate those (aspects of) phenomena that must be dealt with grammatically, a task that is very difficult—if not impossible—to carry out from a purely theoretical standpoint.

## 1 Grammar vs. pragmatics and the importance of empirical arguments

Finding out the domain of application of any process, law, rule, etc. in nature is an empirical task. How do we know which natural phenomena our process, law, rule, etc. is supposed to account for? In answering this question, we proceed by dividing up nature into domains and establishing analogies with other phenomena. Those phenomena that pattern together belong together in the same domain and, everything else being equal, are subject to the processes, laws, rules, etc. of that domain. Thus, we "carve nature at the joints", not at places where it is not meant to be carved. One of the goals of this paper is to highlight the usefulness of this classic methodology when applied to the debate between grammar and pragmatics, more concretely, to the process of free pragmatic enrichment. We will see that, when we apply this methodology, phenomena that have previously been accounted for by free pragmatic enrichment actually shouldn't be accounted by it, since the phenomena in question are, in fact, grammatical.

Consider first data like the following, which I call "adjectival fragments" and which will be the subject matter of §2:

(1) [You come in and pointing at your shirt I say:]
Nice!

(2) [A used-car salesman, pointing at a car:]
Like new

(3) [On a table at a restaurant:]
Reserved

At the intuitive level, everybody agrees that the speaker of e.g., (1), meant that the shirt you are wearing is nice. Likewise, the used-car salesman of (2) meant that the car he is pointing at is like new. And in (3), what is meant is that the table on which we find the relevant sign is reserved. Let's not get into a debate about what the words *meaning*, *means*, *meant*, etc. mean. Researchers of different persuasions will probably take different approaches to this question, and perhaps will use different terms for the notion I have in mind, but my intent here is not to reflect on that issue. The point so far about examples such as (1)-(3) is simply that, at some level or other, competent speakers of English will have access to a representation associated with the fragment *Nice!* of (1) that is slightly bigger than meets the eye, i.e., something like *That shirt is nice!*, or *The shirt you are wearing is nice!*. The question that arises is this: is the material that is left implicit in examples such as (1)-(3) generated by the language faculty, i.e., the grammar, or is that implicit material absent from any grammatical representation and provided for pragmatically instead?

Proponents of pragmatic free enrichment will favor the second option (see Carston 2002, Hall 2009, Stainton 2006, among others): the grammar has no role to play other than in the provision of the adjective/adjectival phrase (with its phonology, its compositional semantics, its internal syntax, etc., of course). In this approach, the language faculty is not involved in the mediation between the fragment *Nice!* and the "expanded" version in the so-called language of thought that, were we to make explicit, would sound something like *That shirt is nice!*. Pragmatic free enrichment is a process whereby considerations of relevance, salience, etc. make it such that speakers of a language add material to a grammatical object (e.g., a (complete or incomplete) proposition/sentence, an adjective (denotation), etc.). The added material is only implicitly expressed, and the process is, at least according to some of its defenders, purely pragmatically triggered, never linguistically/grammatically mandated. See Hall (2009) for a recent discussion.

In the grammatical approach, the language faculty actually produces a representation of the "expanded" version, and there is nothing specific to adjectival fragments that needs to be provided for pragmatically. At the level of the language of thought, we do have a representation of the "expanded" version, but that is only because we had a representation for it already as an output of the language faculty, albeit one that involved ellipsis of certain material. These are empirical claims and as such need to be justified empirically. Yet, I know of no empirical argument for either position—i.e., as matters stand so far, though both analyses are possible, we don't actually know which one is right. In §2, I present an extended empirical argument that we have good reasons to suppose that the language faculty, the grammar, mediates between the fragment and the "expanded" version, an argument that is based on the cross-linguistic comparison of the expression of adjectival fragments.

In §3, I turn to another area of dispute, implicit objects (see Carston 2004, Hall 2009, Recanati 2002, Wilson and Sperber 2000, among others) and present another extended empirical argument that the understood or implicit object argument of certain verbs, such as *eat* in (4), is also represented grammatically, not provided for pragmatically:

(4) Have you already eaten today?

That argument is based on a comparison between English and West Greenlandic, a language which looks, on the surface, radically different from English, but which offers a very interesting perspective on the nature of these implicit objects.

Though the question of the nature of adjectival fragments and implicit objects might look like a small issue in the big order of things, let us not underestimate its importance. Ultimately, as I said, what we take the job of grammar to be and the job of pragmatics to be depends on the proper allocation of phenomena: phenomena that pattern together belong together in the same domain. If we are interested in the nature of pragmatics, we simply cannot do without the kind of work that I will be doing here. We may assume without empirical argument that pragmatic free enrichment is at work in examples such as (1)-(4)—after all, it doesn't look *a priori* implausible that something like that might be involved. Then we may go on to infer what the properties of pragmatic free enrichment are on the assumption that our initial decision about (1)-(4) was right—what its domain of application is, whether it can "complete propositions" or not, whether it is "linguistically mandated" or not, etc. That is, in fact, what proponents of pragmatic free enrichment have done so far (see references above). But, if I am right, the first assumption was wrong to begin with, and pragmatic free enrichment is being charged with work that the grammar already does and is equipped to do. Had we first tried to find empirical evidence that pragmatic free enrichment *is* involved in (1)-(4), then we would have concluded that adjectival fragments and the silent object of verbs like *eat* don't tell us much about the way free pragmatic enrichment works.

The main point, let me stress once more, is methodological. Even if it turned out, in the case of adjectival fragments or in the case of silent objects, that no evidence could be found for the grammatical analysis, and that evidence for the pragmatic approach could, on the other hand, be found, what I am doing here is still very much justified: for only after *seeking* this evidence would we have come to the conclusion that the pragmatic approach is right.

Notice as well that, even if I am right and, as I contend, pragmatics doesn't contribute implicit material in the two areas of investigation I cover, it doesn't follow that *all the phenomena that currently fall under free pragmatic enrichment* are to be dealt grammatically, or with the same grammatical means. That conclusion can only be reached after we have found empirical arguments for the grammatical approach for *all such effects*, one case at a time, since we have no *a priori* reason to expect that exactly the same grammatical mechanisms would be involved in all of these cases. So, the proposals in this paper are compatible with the existence of free pragmatic enrichment, it's just that it doesn't apply to adjectival fragments or the silent, implicit object of certain verbs. It may be that, after doing more work of this kind, we have no reasons to believe that pragmatic free enrichment exists, or it may be that we *do* have such reasons. A lot of work is left to do by this paper—so much that it cannot be accomplished in one paper alone if it is to be done properly—and it is exactly this kind of work that everybody interested in the nature of the interface between grammar and pragmatics, and pragmatics generally, should be doing.

## 2 Adjectival fragments

This section presents an extended argument for a grammatical treatment of adjectival fragments, i.e., a treatment in which the grammar provides not only the adjective phrase but additional material as well. The general form of the argument is as follows: whatever choices languages make for the full, predicative construction,

they make the same choices for the adjective in the fragment. These choices have to do with gender agreement and with the predicative vs. attributive distinction. We would be missing a generalization if the predicative construction and the fragment did not stand in some relation—the account I defend here says that the full, predicative construction is the grammatical source of the fragment. I make this argument in two different ways: first, by looking at how different languages mark adjectival fragments for grammatical gender and the predicative vs. attributive distinction (§2.2), then by looking at adjectives (§2.3) which cannot be used predicatively. I begin, in §2.1, by summarizing the arguments put forth by Jason Merchant with regard to nominal fragments. In §2.4, I consider an alternative explanation of the facts, compatible with free pragmatic enrichment, and reject it, and in §2.5, following Merchant (2004, 2007a, b), I discuss in detail what a grammatical analysis of adjectival fragments might look like.

### 2.1 But first, nominal fragments

To be completely fair, I must amend now something that I implied earlier. While it is true that, in the domain of adjectival fragments, there is no evidence (yet) indicating whether implicit material is grammatically provided or not, it is not true that there have been no attempts at finding that kind of evidence in the domain of fragments in general. Jason Merchant, in a series of articles and talks (see Merchant 2004, 2007a,b) has argued for a grammatical, ellipsis account of nominal fragments on the basis of, among others, Case connectivity effects in a wide variety of languages, as illustrated for German in (5) (Stainton 2006 takes up these facts from Merchant's work and draws different conclusions from them):

(5) *German*
[A customer at a café, to the waiter:]

| | |
|---|---|
| Einen/*Ein | Kaffee,bitte! |
| a.ACC.MASC.SG/a.NOM.MASC.SG | coffee please |

'A coffee, please!

German is a language which, unlike present-day English, uses Case endings on determiners (and other words) depending on their syntactic function/position. So, for many objects of transitive verbs, such as the verbs *order*, *bring*, *buy*, *drink, would like*, etc. (in German: *bestellen*, *bringen*, *kaufen*, *trinken*, *gerne haben*), when those objects come with a determiner, we see a special ending on the determiner, which is usually known as ACCUSATIVE Case:[1]

[1] List of the abbreviations used in the glosses of all the data in the paper: ABS = ABSOLUTIVE Case; ACC = ACCUSATIVE Case; APPL = Applicative morpheme; DAT = DATIVE Case; ERG = ERGATIVE Case; FEM = Feminine; FOC= focus; FV = Final vowel; IND = Indicative Mood; INSTR = INSTRUMENTAL Case; INTRAN = Intransitive; LOC = LOCATIVE Case; LONG = Long form; MASC = Masculine; NEG = Negation; NEUT = Neuter; NOM = NOMINATIVE Case; PAST = Past Tense; PL = Plural; PRES = Present tense; REL = Relativizer; SG = Singular; SHORT = Short form; STR = Strong; SUBJ = Subjunctive Mood; TRAN = Transitive; WK = Weak; 1/2/3 = 1st/2nd/3rd person

(6) *German*
Ich habe einen/*ein Kaffee bestellt/gebracht/
I have a.ACC.MASC.SG/a.NOM.MASC.SG coffee ordered/brought/
gekauft/getrunken
bought/drunk
'I ordered/brought/bought/drank a coffee'

(7) *German*
Ich hätte gerne einen/*ein
I have.PAST.SUBJ gladly a.ACC.MASC.SG/a.NOM.MASC.SG
Kaffee
coffee
'I would like a coffee'

This ending is different from the ending we see in case the noun phrase appears in subject position, as in (8):

(8) *German*
Ein/*Einen Kaffee ist bestellt/gebracht/
a.NOM.MASC.SG/a.NOM.MASC.SG coffee is ordered/brought/
gekauft/getrunken worden
bought/drank been
'A coffee has been ordered/brought/bought/drank'

German makes additional distinctions in its Case system that need not concern us here. The point made by Merchant is, looking back at (5), that only ACCUSATIVE Case on the determiner is possible there, and NOMINATIVE Case is not (no other Case marking is). Why is that? On the pragmatic free enrichment analysis, supported prominently by Stainton (2006), among others, we expect Case connectivity only if we make the rather implausible assumption that Case is something that affects the workings of pragmatic free enrichment. The pragmatic free enrichment approach says that *Ich hätte gerne* '*I would like*' is present only on the language of thought representation. I take it that language of thought representations are not the place for expressing Case relations. Or, to put it in a different way: the pragmatic approach to fragments like (5) is not complete if it doesn't provide reasons to believe that language of thought representations are a good place to express Case relations[2].

On the grammatical approach to fragments of this kind, which Merchant defends, Case connectivity is easily explained: the grammar outputs a representation for (5) that is the same kind of representation it would assign to the full German sentence in (7) (also felicitous in the context provided), except that it is followed by ellipsis of *Ich hätte gerne* 'I would like' (after movement of *einen Kaffee* to clause-initial position; see §2.5). In the full sentence, only ACCUSATIVE Case is possible for the determiner of the object. Hence, we expect ACCUSATIVE Case to be the only possible Case in the fragment in (5). By analogy, we assume that even in English the

[2] Pragmatic free enrichment approaches form part of a bigger group of approaches to ellipsis known as 'direct interpretation approaches'. These include, among others, Barton (1990), Barton and Progovac (2005), Culicover and Jackendoff (2005), Ginzburg and Sag (2000), and, for certain kinds of fragments, Fortin (2007). I discuss Culicover and Jackendoff (2005) in detail in §2.5, and, very briefly, some of the others in note 16. Not all direct interpretation approaches necessarily appeal to pragmatic free enrichment as it is understood here.

full sentence is provided for grammatically, it's just that the morphology of English doesn't allow us to "see" this the way the morphology of German does. Merchant is doing exactly the kind of work that I called for. And it is not difficult to come up with similar examples from other Case-marking languages, as discussed at length in Merchant's work and also in Stainton (2006).

One issue before proceeding. How do we know, in the grammatical approach, whether what the grammar outputs is (the German equivalent of) *I would like a coffee, please!* (followed by movement and ellipsis), as opposed to, say, (the German equivalent of) *I would like to have a coffee, please!*, or *I would like to order a coffee, please!*? We don't. The grammar is not in the business of determining *what* a speaker wants to say. Its job is to impose constraints on *how* one must say whatever it is one wants to say. That is as true in the case at hand as it is in other cases, such as when we wonder why a speaker says, explicitly, *I would like to have a coffee, please!* as opposed to saying *I would like to drink a coffee, please!* In the case at hand, it actually imposes quite a strong constraint on the full, expanded version of the fragment: it must have the noun phrase in ACCUSATIVE Case, so many other potential expansions—any which are felicitous in the context in (5) but have the noun phrase in a syntactic function marked with a different Case—are banned by the grammar. The issue that we are considering here is not what a speaker might want to say, but, given that, whatever it is, how much the journey from his communicative intention to the language of thought representation is mediated by language. And my conclusion is that there is more language involved in this journey than has been assumed so far. These same considerations apply to the argument on adjectival fragments I develop below.[3]

Now, why bother with adjectival fragments at all? Well, for one thing, even if it is true that the implicit material in nominal fragments of the kind exemplified in (5) must be provided for grammatically, it does not immediately follow that this is the right analysis for *all* fragments. We have no *a priori* reason to expect this—we must proceed case by case. For another thing, it is not clear to everybody that structural Case marking is a purely formal feature. For example, it is possible to emphasize the semantic functions that underlie NOMINATIVE and ACCUSATIVE Case (subject of predication/agent/etc., direct object/internal argument/etc.). To complicate the picture, there are cases in which structural Case marking seems to affect meaning. For example, in German, whether a noun phrase is marked with ACCUSATIVE or with DATIVE can affect its spatial interpretation with certain verbs—i.e., whether it is interpreted directionally (as in, e.g., *walk to the station*) or as a locative (as in *walk in the station*). Or, in Turkish, whether certain noun phrases are marked with ACCUSATIVE can influence whether they are interpreted partitively/specifically (see Enç 1991). While I think, contrary to Stainton, that Merchant's argument based on Case goes through even in the presence of these meaning effects of structural Case,[4] I still think it is useful to see if the argument can be made on the basis of something that seems more formal, and that is where grammatical gender comes in. In any case, whether grammatical gender agreement is formal or not, by looking at gender agreement on adjectival fragments we will encounter an additional distinction that makes the argument for a grammatical account much stronger: the attributive vs. predicative distinction.

[3] Thanks to Herman Cappelen and Walter Pedriali for pressing me on this issue.

[4] See Merchant (2007a, b) for further thoughts on this, and Merchant (2004) for the many details of the argument so briefly summarized in this section. I don't think that a meaning-based account of structural Case can account for the way structural Case works.

## 2.2 Adjectival fragments

The first step of the argument is the justification of the assumption that grammatical gender, at least in the languages that I will consider here, is a formal feature. What makes it so? How can we tell?

But first: what *is* gender? Hockett (1958: 231) provides a good working definition: "Genders are classes of nouns reflected in the behavior of associated words". There are two important notions to keep separate. One is the gender a particular noun is assigned, another is the behavior "associated words" display, usually referred to as 'agreement', associated words being often adjectives and articles, though not exclusively.

Whether grammatical gender is a formal feature or not seems to vary depending on the language. Corbett (1991, chapter 2) describes a number of languages in which the assignment of a noun to a gender class is actually meaning-based. In strict semantic systems (also known as natural gender systems), given the meaning of a noun, we can predict its gender without taking into account anything about its form, with very few exceptions. For example, in Tamil (one of the major Dravidian languages, spoken in south-east India and in Sri Lanka), nouns for gods or male humans are assigned masculine, those for goddesses or female humans, feminine, and all others, neuter.

But there are other languages in which the gender that a noun belongs to is determined to a great extent on the basis of its form—in Corbett's (1991: 33) words, "languages in which large numbers of nouns fall outside the semantic assignment rules". Usually, it is either aspects of the phonology or the morphology of a noun that matter in gender assignment. Gender in languages in which the phonology or the morphology of the noun is taken into account is not completely independent of meaning; there is no pure morphological or phonological system, just systems in which phonological or morphological rules apply to those nouns that fall outside of the semantic rules. In Russian, for example, there are two semantic assignment rules, as specified in (9) (Corbett 1991: 34-43) (with nouns that are sex-differentiable, the language has a form for males and a different one for females):

(9) Sex-differentiable nouns denoting males (humans and higher animals) are masculine
Sex-differentiable nouns denoting females are feminine

The rules in (9) leave a good number of nouns uncovered (which form the "semantic residue"), and it is here that morphological form matters for gender assignment. Not all the nouns in the semantic residue are assigned to neuter in Russian; instead, they are assigned masculine, feminine or neuter mainly depending on what declension type the noun belongs to: nouns from declension type I (e.g., *zakon* 'law') are masculine; those from declension types II (e.g., *škola* 'school') and III (e.g., *kost'* 'bone') are feminine, and the rest is neuter. Corbett (1991: chapter 3) goes on to describe other similar languages. In Bantu, nouns can belong to as many as twenty different noun classes or genders. In Swahili, e.g., the semantic assignment rules distinguish augmentatives, diminutives and other animates; the morphological assignment rules work on the basis of overt gender markings (prefixes) on nouns. In French, semantic rules similar to those in (9) operate, and on the residue we find both morphological and phonological rules. E.g., nouns ending in /ɛzɔ̃/ (e.g., *maison* 'house'), /sjɔ̃/ (e.g.,

*action* 'action'), /zjɔ̃/ (e.g., *persuasion* 'persuasion'), and others are feminine, with the phonological residue of nouns ending in /ɔ̃/ taking on masculine.

All the languages that I use below belong to this second type, where a semantic criterion is not sufficient to determiner the gender a noun belongs to, and I focus on nouns that plausibly fall outside of semantic assignment rules. In principle, it would be possible to make my argument with natural gender languages, because even there gender *agreement* is a syntactic relationship, and as such it can be restricted in various grammatical ways (e.g., syntactic configuration, tense, person, number, Case, etc.; Corbett 1992: 124-133). And it is agreement that is crucial for the argument. But I opted for the safer strategy of staying away from natural gender systems.

The argument is as follows: whatever gender agreement choices languages make for adjectival fragments, they make the same choices for the corresponding full, predicative construction. I have found instantiations of the two logical possibilities entailed by this generalization. First, there are languages, such as Norwegian and Kitharaka, a Bantu language spoken in Kenya, which mark adjectives in the fragment and in the predicative construction. Second, there are languages, such as German and Dutch, that do not mark adjectives in the fragment or in the predicative construction, even though these languages mark adjectives with gender agreement in principle. The generalization suggests that there are no instantiations of a third type of language, namely, a language in which the choice of gender agreement on the adjective when it is used as fragment differs from the choice of gender agreement on the adjective when it is used in predicative position. The argument rests on the non-existence of such languages. English, not being a grammatical gender agreement language, falls outside of the generalization.

Let us look at the data. First, consider the context in (10), with the two possibilities indicated there:

(10) [Your fridge has been taken for repair and the repairman brings it back to you. As you open the door, he points at the repaired fridge and says:]
a. The fridge is like new!
b. Like new!

In English, either the full predicative construction or just a simple fragment are possible.[5] The same is true in other languages:

[5] At least *some* defenders of the fully pragmatic approach to fragments, such as Stainton, agree that in cases in which a linguistic antecedent is present in the context that would be able to license ellipsis, such as the question-answer pair in (i), the implicit material of the answer is provided for grammatically and then elided:

(i) Q: What is that?
A: A nice shirt

That is, these cases constitute a separate phenomenon even for the pragmatists. See Merchant (2004) for many arguments for the idea that the implicit material in Q/A pairs is provided for grammatically. This is why an important feature of the data that I test here has to be that no linguistic antecedent is available.

(11) *Kitharaka*

a. Furinji ino ita ja-imbia
9.fridge this like 9-new
'This fridge is like new'

b. Ita ja-imbia
like 9-new
'Like new'

(12) *Norwegian*

a. Kjøleskapet er som nytt
Fridge.DEF is as new.NEUT.SG
'The fridge is like new'

b. Som nytt!
as new.NEUT.SG
'Like new'

(13) *German*

a. Der Kühlschrank ist wie neu
the.MASC.SG fridge is like new
'The fridge is like new'

b. Wie neu!
like new
'Like new'

Kitharaka, being a Bantu language, has a sophisticated noun class system and a corresponding adjectival gender agreement system. Adjectives in Kitharaka bear a mark of gender agreement. *Fridge* in this language happens to belong to class 9, and adjectives that accompany it must bear the mark of that noun class, as indicated by the prefix *ja-* in (11)a, the full predicative construction. When just the fragment is used, as in (11)b, the same prefix is used on the adjective. No other markings are grammatical in (11)a or in (11)b. In Norwegian, which distinguishes neuter from 'common' gender (which collapses masculine and feminine), the noun *kjøleskap* 'fridge' is neuter, and in both the full predicative construction in (12)a and in the fragment in (12)b, the adjective must take on neuter agreement; i.e., in both examples in (12), *nytt* is possible but *ny* is not.

German (and Dutch, though I don't show Dutch here) is a lot more interesting. That is because, despite the fact that it has a sophisticated system of gender agreement on adjectives, it chooses to use the unmarked, bare form for the full predicative construction, as shown in (13)a. Any gender agreement on the adjective leads to ungrammaticality. The same is true for the fragment in (13)b. It is crucial for the argument that we look at some of the details of the adjectival agreement system of German. If the adjective is used in attributive position when there is no article (e.g., with bare singular and plural nouns, with mass nouns), not only does the adjective agree in gender, the so-called strong inflection of the adjective is used. In that case, the adjective *neu* takes the form *neuer* (for masculine plural NOMINATIVE)[6]. That is the form used in (14):

[6] The adjectival inflection system of German is highly syncretic, so in many cases it is not possible to see the difference. Unless otherwise indicated (both for German and Serbo-Croatian below), the adjective is in NOMINATIVE Case, the Case that is used in predicative constructions.

(14) *German*

| | | | |
|---|---|---|---|
| Neu-er | Wein | ist | angekommen |
| New-NOM.MASC.SG.STR | wine | is | arrived |

'New wine arrived'

If the adjective is used in attributive position following the definite determiner, then the adjective is still marked for gender agreement but the so-called weak inflection is used, as in (15):[7]

(15) *German*

| | | | | |
|---|---|---|---|---|
| Der | neu-e | Wein | ist | angekommen |
| The.NOM.MASC.SG | new-NOM.MASC.SG.WK | wine | is | arrived |

'The new wine arrived'

If the adjective is used predicatively, as an adverb, in compounds and in postnominal attributive modification (i.e., the adjective takes a complement to its right or is parenthetical), then the bare form *neu* must be used; gender or any other form of marking is impossible. So German adjectives, in addition to agreeing with nouns according to gender, are differentiated according to whether they appear in predicative position or not.

Importantly, if use of the adjective as a fragment was unrelated to its use in the full predicative construction, why then is the bare form imposed in (13)b? An approach that postulates that only pragmatic free enrichment mediates between the fragment in (13)b and the thought corresponding to (13)a, and that accepts that grammatical gender agreement and choice of strong vs. weak inflection is a grammatical phenomenon, does not expect German to allow only the bare form in fragments. Why couldn't it use a gender-agreeing adjective in the strong form, given that the strong form of the adjective is used *when no determiner is present*? On the other hand, on an approach that says that the full predicative construction is generated by the grammar even when seemingly just the fragment is there, this restriction is expected: the adjective in the fragment actually appears in predicative position, and as such it must behave like other adjectives in this position, i.e., bearing no grammatical gender agreement and no other markings. One important distinction between strong and unmarked inflection is that the former is used attributively, while the latter is used predicatively. Only making reference to this distinction can we explain the facts. But making reference to predicative position necessarily entails making reference to the full, predicative construction—that is in the definition of predicative position. And if it is the grammar that is in charge of gender agreement and choice of inflection, then there is no other analysis that explains the facts but the one that has the grammar generate the full predicative construction and subsequently allows ellipsis of subject and verb.[8]

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[7] German has an additional mixed inflection paradigm, but I ignore that here.

[8] Consider (i) and (ii):

(i) *German*

| | | | | | |
|---|---|---|---|---|---|
| Dieser | Wein | ist wie | neuer | ~~Wine~~ | |
| This | wine | is like | new.STR | wine | |

'This wine is like new/young'

(ii) *German*

| | | |
|---|---|---|
| Dieser | Wein | ist wie neu |
| This | wine | is like new |

'This wine is like new/#young'

In contexts that license N-ellipsis, German marks adjectives in predicative position, as in (i), with the strong inflection. The adjective in this case can be interpreted in many ways: the wine tastes like new

Interestingly, though the following pattern from Spanish and Serbo-Croatian looks problematic for the generalization, it turns out not to be. In these languages, there are two possibilities for marking the adjective that appears as a fragment: either with the marking that agrees with the gender of the noun, or with one that doesn't seem to:

(16) *Spanish*
[Same context as in (10)]
¡Como nueva/nuevo!
like new.FEM.SG/MASC.SG
'Like new!'

(17) *Serbo-croatian*
[Same context as in (10)]
Kao nov/novo!
like new.SHORT.MASC.SG/SHORT.NEUT.SG
'Like new!'

In Spanish, *nevera* 'fridge' is feminine, in Serbo-Croatian *frizider* is masculine. The adjective in the fragment in Spanish can bear either feminine or masculine agreement, in Serbo-Croatian it can be either masculine or neuter agreement. Importantly, the account proposed here makes the prediction that languages like this can exist only if they make available full predicative versions of the fragments where each of the possible agreement patterns is used. And that is indeed what we find:

(18) *Spanish*

| | | | | |
|---|---|---|---|---|
| La | nevera | está | como | nueva/*nuevo |
| The.FEM.SG | fridge | is | like | new.FEM.SG/MASC.SG |

'The fridge is like new'

because we just opened the bottle, or because it is young, or, rather unlikely, because it was previously adulterated and now we have managed to restore it to its original state. However, if one were to leave the adjective unmarked, as in (ii), then it would no longer be possible to interpret new as 'young'; in fact, the only possible interpretation is the unlikely interpretation, that in which the wine was previously adulterated but now it has been restored to its original state. Thus, it seems like, at least in German, gender agreement/choice of strong vs. weak inflection can have effects on interpretation. Does this make gender agreement less formal? I don't think so. Of course, lots of processes that are formally triggered, e.g., syntactic movement, have interpretation effects. That's why I don't think Stainton's (2006) objections to the arguments based on Case assignment really go through.

Notice, by the way, that, as predicted by the grammatical account, the fragmented versions of (i) (in (iii)) and (ii) (in (iv)) have the same interpretation possibilities as (i) and (ii), respectively:

(iii) *German*
Q: What does this wine taste like?
A: Wie neuer ~~Wine~~
'Like new/young wine'

(iv) *German*
[Pointing at a glass of wine:]
Mmmm! Wie neu!
'Like new/#young wine'

(19) *Spanish*
[Same context as in (10)]
¡Esto está como nuevo/*nueva!
This.MASC[9].SG is like new.MASC.SG/FEM.SG
'This is like new!'

(20) *Serbo-Croatian*
Ovaj frizider je kao nov/*novo
this.MASC.SG fridge is like new.SHORT.MASC.SG/SHORT.NEUT.SG
'This fridge is like new'

(21) *Serbo-Croatian*
[Same context as in (10)]
Ovo je kao novo/*nov!
This.NEUT.SG is like new.SHORT.NEUT.SG/SHORT.MASC.SG
'This is like new'

The set of cases for which (19) and (21) can be used is a superset of the set of cases in which (18) and (20) can be used, respectively: in the former, it is immaterial what the grammatical gender is of the noun that describes the object picked up by *this*, the masculine (Spanish) or neuter (Serbo-Croatian) form of the demonstrative can be used, and the corresponding adjective agrees with it. It is common to refer to forms such as these as default. To abstract away from defaults, consider similar examples in the plural, which, at least in these languages, has no default (only Spanish is shown):

(22) *Spanish*
[Your two fridges have been taken for repair and the repairman brings them back to you. As you open the door, he points at the repaired fridges and says:]
¡Como nuevas/*nuevos!
like new.FEM.PL/MASC.PL
'Like new!'

Only the agreeing version of the adjective is possible in this fragment. In Norwegian, Kitharaka and German, these kinds of alternative sources are just not available.[10, 11]

Serbo-Croatian is interesting, in addition, because it has two forms for adjectives (in addition to different forms for gender, case and number): long and short. Both forms can be used attributively[12], but, importantly, the long form is never used in predicative position. This is very reminiscent of the discussion on German above. The long form of *nov* is *novī* (NOMINATIVE, masculine, singular), and *novī*

[9] *Esto* may actually be neuter instead of masculine. In that case, we must say that *nuevo* can be either masculine or neuter. I don't take issue with the existence of a neuter gender in Spanish.
[10] Notice, as predicted, that (i) is not possible in the context in (22):

(i) Estos están como nuevos
these.MASC are like new.MASC.PL
'These are like new'

[11] In Serbo-Croatian, one can also stay away from the default by considering the fact that feminine agreement on the adjective (nova; NOMINATIVE, feminine, singular) is impossible in (17), (20) and (21).
[12] Some speakers get a very subtle meaning difference between the long and short forms when they are used attributively; this seems to boil down to a distinction between specific (long) and non-specific (short) (Browne 1993: 327).

cannot be used instead of *nov* in (17) or (20). *Novō*, the long form of *novo* (NOMINATIVE, neuter, singular), and which ends in a long vowel[13], is impossible in (21). This restriction falls out straightforwardly from the grammatical account of adjectival fragments, since this account claims that the full predicative construction underlies the fragment. On the free enrichment account, one would have to say that the distribution of long and short forms of adjectives in Serbo-Croatian is stated at the level of the language of thought. For that account to work, then, we would need an argument that that is the right treatment for the restriction—but it is completely unclear why the language of thought would care about long and short forms of adjectives, this just seems to be a distinction made by the grammar of Serbo-Croatian.

To summarize. On the grammatical account, we expect to find restrictions on the form of the fragmented adjective in languages that impose restrictions on adjectives in predicative position, and the restrictions are expected to be the same. This is indeed what we have found. The grammatical account predicts that we should only be able to find languages which mark the adjective the same way in the predicative construction and in the fragment, whatever way that is (we saw different possibilities). There should be no language that makes different choices for the predicative construction and the fragment, since the former is the grammatical source of the other. I haven't found any such language. The pragmatic account makes no predictions in this respect: the choice of marking on the adjectival fragment is necessarily independent of the choice of marking on the adjective that appears in predicative position in the full-fledged sentence. True, it views the relationship between the fragment and the full, predicative construction in the opposite way: in this account, the fragment is pragmatically enriched to result in something that is or resembles the full, predicative construction. But there is no room in that account to express the kinds of restrictions we have seen here, because it does not provide an argument that adjectival gender agreement, the choice between strong vs. weak inflection in German, or the choice between long and short forms in Serbo-Croatian, are pragmatic in nature.

### 2.3 Non-predicative adjectives in English

In fact, even English can be revealing for our enterprise, despite the fact that its adjectival system is very much more impoverished than any of the languages we have considered here. That is because English (and, of course, other languages, including the ones discussed above) has a class of adjectives that cannot be used predicatively. And what we find is that, as predicted by the grammatical account, it is exactly these adjectives that cannot be used as fragments. Adjectives such as *nice* can be used both attributively and predicatively, as shown in (23) and (24), respectively:

(23) John was wearing a nice shirt

(24) That (shirt) is nice

Of course, *nice* can also be used as a fragment, as we have seen before:

(25) [You come in and I say, pointing at your shirt:]
Nice!

[13] There are other phonological differences between long and short forms (Browne 2002: 327-328).

Adjectives like *multiple, single* (in the sense that opposes *multiple*)*, former*, *future*, *alleged*, *main*, etc., on the other hand, can only be used attributively:

(26) I saw multiple gold medalists at the party

(27) *Those gold medalists are multiple

And, crucially, these adjectives cannot be used as fragments either:

(28) [At a party in which some of the guests are multiple gold medalists, all of them wearing all their medals at their necks]
Wow! #Multiple!

The grammatical account says that the grammatical source of the adjectival fragment is the full, predicative construction. So, if something cannot be used in the predicative construction, it cannot be used as a fragment either, as we have just seen. Unless it is supplemented with an argument that the attributive-predicative distinction is a pragmatic distinction, the pragmatic account makes no prediction with respect to these data; i.e., there is no reason in this approach why an adjective like *multiple* can't be used as a fragment.[14, 15]

## 2.4 Culicover and Jackendoff (2005) and indirect licensing

I now consider and reject an alternative explanation of the facts discussed so far that is compatible with the pragmatic free enrichment approach. That is the proposal made in Culicover and Jackendoff (2005), which they call *indirect licensing*. Indirect licensing is intended to cover a wider range of facts than I have discussed here, for discussion of which I refer the reader to chapters 7 and 8 of Culicover and Jackendoff's book. Here, I limit myself to an evaluation of indirect licensing as an account of adjectival fragments.[16]

[14] One may argue that the distinction is actually between intersective and non-intersective adjectives, and that this distinction is responsible for the contrast between (23)/(24) vs. (26)/(27). In that case, the pragmatic account needs to be supplemented with an argument that the pragmatics needs to make the intersective/non-intersective distinction. Even that, however, might not be enough. For example, *fake* and *false* are non-intersective and yet they can be used predicatively (cf. *that watch is fake*; *the claim he made is false*). Of course, these adjectives can also be used as fragments.

[15] Imagine a situation in which we are dividing up a group of people into two subgroups. One of the subgroups will contain the multiple gold medalists, the other subgroup the single gold medalists. In this scenario, one can use bare *multiple* and bare *single* as one points to each person and determines the subgroup s/he belongs to. This, however, is not a counterexample to the claim that these adjectives cannot be used as fragments. I could have used the words *the* and *a* after agreeing with you that *the* will designate the multiple gold medalists, and *a* the single gold medalists—but it would be unreasonable to conclude from that that *the* and *a* can be used as sentence fragments—they can't. In this scenario we are using these words as labels. I could have used a whistle for one and a clap for the other. I could have used full sentences too—*my left arm is sore* could designate one subgroup, *colorless green ideas sleep furiously* could designate the other, etc. In other words, anything agreed upon previously goes. We shouldn't use this kind of scenario to test hypotheses about what can and cannot be a sentence fragment.

[16] Barton and Progovac (2005) argue that all fragments are generated by the grammar as such. Their analysis is shown to be able to deal with cases of anti-connectivity effects. Pragmatic free enrichment is compatible with this account but it is very unclear how they could account for connectivity effects of the kind we have seen here. Fortin (2007) argues that only a subset of fragments, i.e., those that show anti-connectivity effects, are generated as such by the grammar. In her framework, fragments that show

In indirect licensing, the semantic and syntactic features of a fragment are licensed at a distance by a linguistic or non-linguistic antecedent. Culicover and Jackendoff (2005: 262) consider the following case from Icelandic, among others:

(29) *Icelandic*
A: Kisa kom in
Kitty.NOM.FEM.SG came in
'Kitty came in'
B: Já, rennblaut
yes wet.NOM.FEM.SG
'Yes, (she came in) wet'

The adjective *rennblaut* is marked NOMINATIVE, feminine, singular, just like *Kitty* in the previous sentence. No other marking on the adjective is possible. Kitty is understood to be the one who is wet. Thus, *Kitty* acts as the linguistic antecedent of the adjective and licenses the particular marking that we see. Other markings have no licenser, and thus lead to ungrammaticality. There is no need to appeal to the idea that there is a grammatical source for (29)B that is bigger than meets the eye in order to express the restrictions that we see, and there is no need for an argument that gender agreement and the predicative vs. attributive distinction is pragmatic. This account is compatible with a free pragmatic enrichment account in which *she came in* is provided for pragmatically.

Such a case, one might argue, is easy because we have a linguistic antecedent. Can an item be indirectly licensed by a non-linguistic antecedent? Yes, why not? This is the analysis that Culicover and Jackendoff (2005: 261) propose for (30):

(30) *Icelandic*
[Pointing toward a book]
Viltu rétta mér hana?
will.you hand me.DAT it.FEM.ACC
'Would you hand it to me?'

*Bókina* 'book' is feminine in Icelandic, and it is not linguistically expressed in (30). The pronoun *hana* must be in the feminine though. Gender agreement on the adjective is indirectly licensed by the existence of a book in the discourse context; i.e., the presence of the book licenses an abstract linguistic object which, in Icelandic, bears feminine gender, and it is this linguistic object, in turn, what licenses the agreement we see on the pronoun.

It is not problematic for indirect licensing to cover grammatical gender agreement on fragmented adjectives in Kitharaka, Norwegian or Spanish. (30) is very reminiscent of (11) and (12), the Kitharaka and Norwegian examples we discussed in §2.2. Languages that have a default gender, such as Spanish ((16)) are not difficult to accommodate; there are different claims one could make, for example, that default gender does not require licensing, that any gender agreement can license default gender, etc.

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connectivity effects, like the ones that have occupied us here, would require the grammar to generate the full construction. Ginzburg and Sag (2000: 295-333) do not seem to need to appeal to pragmatic free enrichment; they provide an analysis of certain types of answers to questions and sluices in terms of HPSG feature structures, structures which can contain contextual information (they don't extend their analysis to non-question fragments).

The data on the distribution of attributive and predicative (forms of) adjectives in German, Serbo-Croatian and English, however, and the way it ties up with gender agreement, is a serious problem for this approach. Nothing in the German example in (13)b, *wie neu!* 'like new!' allows us to make a distinction between attributive and predicative position in this account—for all we know, it could be either (notice that *wie ein neuer Kühlschrank!* 'like a new fridge!', with the adjective in attributive position, would be felicitous here). Given the Icelandic, Kitharaka and Norwegian examples above, non-linguistic material can indirectly license gender features, and other examples dealt with by Culicover and Jackendoff suggest that indirect licensing can license other inflectional features in the same circumstances, such as Case, and even prepositions that are required for certain arguments. So, why isn't the strong inflection on the adjective licensed here? Why isn't a gender-agreeing form licensed here? A similar problem is presented by Serbo-Croatian in (17), or, in fact, by English in (28). Why isn't the long form of the adjective licensed in (17)? Why isn't a gender-agreeing form licensed here? And why isn't *multiple* licensed in (28)?

We can spell out the problem with respect to the distribution of predicative vs. attributive (forms of) adjectives by first asking what it is that licenses the Serbo-Croatian short form in the indirect licensing account. In their discussion (p. 262), Culicover and Jackendoff discuss the following example:

(31) *Serbo-Croatian*

| | | | | | | |
|---|---|---|---|---|---|---|
| A: Onda | je | moj | pas | utrcao | u | sobu |
| then | be | my | dog.MASC.SG | ran | in | room |

'Then my dog ran into the room'

B: Da, mokar
yes wet.SHORT.MASC.SG
'Yes, (it was) wet'

The presence of the verb *je* 'be' must be enough to indirectly license the short form of the adjective in this example (i.e., a preceding instance of the predicative construction). One can accept the idea that the mere presence of a book in an example like (30) licenses (the linguistic object that in turn licenses) the particular gender agreement that we see in the pronoun there, and that the gesture of pointing is what licenses (the linguistic object that licenses) the short form of the adjective in (17), in the absence of a previous, overt predicative sentence. But, then, why can't the same pointing gesture indirectly license the attributive adjective too? Notice that, compatible with pointing at a book, are both *That book is nice* (predicative) and *That is a nice book* (attributively). With respect to the English facts in §2.3, the problem is similar. Adjectives that cannot be used predicatively could be assumed to be marked attributively only. But, why isn't their attributive feature indirectly licensed in contexts such as (28), given that a full sentence or noun phrase with the adjective in attributive position is felicitous there as well (e.g., *Wow! Multiple gold medalists!*). And the same for German.

With respect to gender agreement: if non-linguistic material can indirectly license gender agreement in Icelandic, Kitharaka and Norwegian, why can't gender agreement be licensed in Serbo-Croatian or German adjectival fragments?

To summarize. Indirect licensing is, in principle, an alternative approach to what I have called here the grammatical approach (it is grammatical too, though in a different sense, and, in addition, it appeals to pragmatics). This approach needs to be supplemented with a way of making a distinction between attributive and predicative

(forms of) adjectives when these adjectives are used as fragments. The notions 'attributive' and 'predicative' are relational: they refer to the relationship between the adjective and its immediate surrounding linguistic context (i.e., whether it precedes or follows a noun, whether it is in predicative position). Because the indirect licensing account assumes that there is no such immediate linguistic context, it seems as though it would have no grounds to begin with there. Culicover and Jackendoff's way out is to appeal to the discourse context as a source for the licenser of fragmented predicative adjectives, but then it is unclear why fragmented attributive adjectives couldn't be licensed as well: in all cases, a full sentence or noun phrase that contains the adjective in attributive position is possible as a substitute for the fragment. Thus, we have no reasons to suppose that the discourse context (e.g., pointing gestures) couldn't indirectly license fragmented attributive adjectives too. With respect to gender agreement, a similar problem arises, as we have seen.

### 2.5 Analysis

Here is one possible analysis for adjectival fragments that takes care of the generalizations I have discussed in this section. The analysis I discuss is a PF-deletion type of account (see, among others, Hankamer and Sag 1976; Johnson 1996, 2001; Lasnik 1999a, 1999b, 2001; Merchant 2001, 2004; Ross 1969; Sag 1980 and Sag and Hankamer 1984), though there are other grammatical approaches to ellipsis in the literature, such as those that postulate a null pro-form in the ellipsis site which gets resolved either via LF-copying (as in, among others, Beavers and Sag 2004, Chung, Ladusaw and McCloskey 1995, Fiengo and May 1994 and Fortin 2007), or by appealing to the same mechanisms of interpretation used for overt pronouns (as in, among others, Depiante 2000; Hardt 1993, 1999; Lobeck 1995 and Shopen 1973). I do not defend my choice of grammatical account here, since what is important from our perspective is that *a* grammatical account of the facts works.

Let's take a very simple example, such as English (1), repeated here as (32):

(32) [You come in and pointing at your shirt I say:]
Nice!

The derivation proceeds as follows. In a first step, the grammar of English generates the full predicative construction in (33):

(33) That shirt is nice![17]

That is, the grammar first generates the syntactic tree in (34), irrelevant details omitted (together with phonological and potentially other features):

(34) $[_{TP}\ [_{NP}$ that shirt$]\ [_{VP}$ is $[_{AP}$ nice$]]]$

It is because the grammar provides (34) that grammatical gender agreement can be specified; i.e., (34) provides the representation on which to express gender agreement.

In a second step, the adjective phrase containing the adjective is fronted to clause-initial position, leaving a trace in its original position, as shown in (35):

[17] Recall §2.1 There are other potential sources, e.g., *That is nice!*, or *That thing you are wearing is nice!*, etc. The grammar does not say which one of these is the source that a particular speaker produces in a particular situation.

(35) $[_{FP}\ [_{AP}\ \text{nice}]_i\ [_{TP}\ [_{NP}\ \text{that shirt}]\ [_{VP}\ \text{is}\ t_i]]]]$

Then, in a third step, a process of pragmatically controlled ellipsis takes place, a process that deletes TP (Tense Phrase), a constituent, and leaves the fragment adjective as the only phonologically realized item of the sentence:

(36) $[_{FP}\ [_{AP}\ \text{nice}]_i\ \sout{[_{TP}\ [_{NP}\ \text{that shirt}]\ [_{VP}\ \text{is}\ t_i]]}]$

Several comments about this derivation are in order. First, a great deal is made in the literature, and rightly so, about deletion of non-constituents. The price to pay for it, all things being equal, is overgeneration. That is the reason why Merchant's version of the ellipsis account of nominal fragments relies on syntactic movement. Consider (37), together with Merchant's analysis for it, in (38) (irrelevant details omitted):

(37) Question: Does Abby speak Greek?
Answer: No, Albanian.

(38) $[_{FP}\ \text{Albanian}_i\ \sout{[_{TP}\ \text{she}\ [_{VP}\ \text{speaks}\ t_i]]}]$

In Merchant's analysis, after *Albanian* has raised out of its VP-internal position to clause-initial position, deletion targets the whole TP, a constituent. Merchant provides much further evidence for the existence of this kind of movement.

Adjectival movement is allowed in the languages that we have covered here. Consider Norwegian and Spanish, for example:

(39) *Norwegian*

| | | | | |
|---|---|---|---|---|
| Som | nytt, | er | dette | kjøleskapet |
| as | new.NEUT.SG | is | this | fridge.DEF |

'Like new, this fridge is'

(40) *Spanish*

| | | | | |
|---|---|---|---|---|
| Como | nueva, | está | la | nevera |
| like | new.FEM.SG | is | the | fridge |

'Like new, the fridge is'

Notice that in cases like Spanish, which require subject-verb inversion in the clause in which the moved item lands (more precisely, the A'-moved item; see Torrego 1984), the reverse order between subject (*la nevera*) and verb (*está*) is ungrammatical (i.e., **Como nueva, la nevera está*), as expected if *como nueva* has moved. In Norwegian (and in German), there is a V2 requirement. Notice as well that these sentences require heavy contextualization. Merchant (2004: 697) notices that the same is true in some of the cases he discusses, and suggests that the constraints that the full sentences must satisfy can be satisfied in the cases where ellipsis has occurred. Justification for this claim comes from the fact that ellipsis is well-known for inducing certain amelioration effects (see Merchant 2008).

Second, notice that the movement step in (35) is crucial in order to explain why attributively-marked and attributive adjectives cannot serve as sentence fragments. Nothing else in the grammatical account prevents that. If the movement in (35) is a necessary component of the analysis of adjectival fragments, then it follows that attributively-marked and attributive adjectives will never be able to function as

fragments, since they can never move out of a DP, as shown in (41) for English (the same obtains in the other languages):[18]

(41) *Nice$_i$, that is a $t_i$ shirt

Third, notice, as Merchant (2004: 718ff) and others have argued (beginning with Schachter 1977, 1978 and going on to Pullum 2001 and Stanley 2000), that ellipsis need not be linguistically controlled. Consider VP-ellipsis, as shown in (42)-(44):[19]

(42) [John attempts to kiss his wife while driving]
Wife: John, you mustn't ~~[$_{VP}$ kiss me]~~!

(43) [Looking at someone about to jump off a bridge]
She won't ~~[$_{VP}$ jump]~~

(44) [Seeing someone about to light their head on fire]
Don't ~~[$_{VP}$ light your head on fire]~~!

Hankamer and Sag (1976) discuss Null Complement Anaphora, which also does not require linguistic antecedents:

(45) [Indulgent father feeds baby chocolate bar for dinner]
Mother: I don't approve ~~[of the baby eating chocolate for dinner]~~

(46) [Two people are disturbed by loud noises of popcorn-eating in adjacent row]
One to the other: don't you think we should complain ~~[about the loud noises]~~?

Thus, it is possible for a silent element to be provided for grammatically (i.e., the grammar has it as part of its output; this can be in the form of a null pronoun, or a VP that then gets elided, etc.) and yet to allow pragmatic control (in the case of a pronoun, for its value to be provided for pragmatically; in cases of ellipsis, for the ellipsis to be licensed, etc.). Notice that in (32) and the other cases that have occupied us in this section, the context is rich enough to make a certain entity salient (i.e., a shirt) as well as a certain relation between that salient entity and the adjective. Merchant (2007a: 25) thus proposes that "an expletive, deictic, or demonstrative subject (*there*/*it*, *he*/*she*/*it*, *this*/*these*/*that*/*those*) and an appropriate form of the verb *be* (appropriate in person, number, aspect, and tense) can be elided if a referent for the deictic or demonstrative is salient enough to resolve it (in other words, in the same

[18] Thanks to Isabel Pérez Jiménez for stressing the importance of this point.

[19] Merchant (2004: 721) and others disagree with there being a contrast in Hankamer and Sag's (1976) famous examples of discourse-controlled VP-ellipsis, such as (i) (with Hankamer and Sag's judgments as indicated):

(i) [Hankamer attempts to stuff a 9-inch ball through a 6-inch hoop]
a. #It's not clear that you will be able to ~~[$_{VP}$ stuff that ball through that hoop]~~
b. It's not clear that you will be able to do it

Merchant does maintain a distinction between deep vs. surface anaphora (Hankamer and Sag's terminology for distinguishing (i)a from (i)b), but the distinction is cashed out in terms of the presuppositions that each case must satisfy, and the ease or difficulty involved in it.

circumstances that such elements can be used without linguistic antecedents, period)".[20]

## 3 Silent indefinite objects

We now turn our attention to a different kind of phenomenon, albeit one that involves material that, as before, is not phonologically expressed. We are now concerned with examples such as those in (47)-(51) (other verbs that behave in a similar fashion are *read*, *cook*, *sing*, *carve*, *knit*, *weed*, *file*, *write*, etc.):

(47) John has already eaten
(48) Does Peter still drink?
(49) Mary has recently quit smoking
(50) I am so glad that you found time to bake today
(51) John has been hunting a lot lately

A number of properties are important here in order to delimit the phenomenon of interest. First, these verbs have transitive uses:

(52) John has already eaten lunch
(53) Does Peter still drink alcohol?
(54) Mary has recently stopped smoking cigarettes
(55) I am so glad that you found time to bake a cake today
(56) John has been hunting deer a lot lately

Second, (47)-(51) have notional, understood objects. Third, the understood object is interpreted indefinitely (see Bresnan 1978, Dowty 1981, Fillmore 1969, 1986, Fodor and Fodor 1980, Mittwoch 1980, Shopen 1973, Thomas 1979), often simply as 'something', sometimes with additional restrictions that resemble selectional restrictions imposed by verbs (e.g., for *bake*, it must be something that is typically baked, or at least bakeable). This is in contrast to other implicit arguments, which receive other interpretations (definite, reflexive, etc)[21]. Consider the following contrasts (data from work together with Tom Roeper, but the contrasts are well-known). Material in angle brackets is implicit:

(57)

a. A: John is eating a cookie!
   B: *Oh, I'd love to eat <the cookie> too!
b. A: John is drinking a smoothie!
   B: *Oh, I'd love to drink <the smoothie> too!
c. A: John taught a great class this morning
   B: *Oh, Peter taught <a great class> too!

[20] Notice an important difference between this account and indirect licensing. In the ellipsis account, something in the discourse licenses the ellipsis. In the indirect licensing account, however, it is not enough to have something that can be blamed for licensing predicative features on the adjective, it also needs to provide a reason why attributive features would not be licensed.

[21] The study of implicit arguments has, of course, a long tradition in linguistics. There are many kinds of implicit arguments, but I concentrate here on implicit indefinite objects. For a recent overview of implicit arguments and for relevant literature, see Bhatt and Pancheva (2006).

In these examples, the implicit object of the verbs cannot be interpreted as though it picked its referent from the preceding context, the way a definite would. For example, in (57)c, B can be interpreted as saying that Peter taught a class this morning too, but that is very different from saying that he taught a great class too. According to B, Peter engaged in some teaching this morning, but it is left unspecified whether the class Peter taught was great or not—it could be either way. With (57)a and (57)b it is easy to see that the implicit objects are not interpreted definitely, because they contrast with versions in which a pronoun *it* replaces the implicit object: *I'd love to eat it too*, or *I'd love to drink it too*. This is very different from the way the implicit objects of other verbs are interpreted. For example:

(58)

a. The car is stuck. Let's push <the car>!
b. A: John is smoking heroine!
   B: Oh, I'd love to smoke <heroine> too!
c. A: John is driving a motorcycle!
   B: Oh, I'd love to drive <the motorcycle> too!

The versions with a pronoun *it* replacing the implicit object are not synonymous with the sentences in (58): *Let's push it*, *I'd love to smoke it too*, *I'd love to drive it too*. Verbs such as *shave* and *bathe*, when they take an implicit object, are understood reflexively, so that, no matter how much the pragmatic pressure, it is impossible to interpret it otherwise:

(59) [Mary is a very good sister and shaves/bathes her brother, who just broke his right hand, every morning]
*I am so happy that somebody shaves/bathes <him> every morning!

A common view in the literature on pragmatics (see, e.g., Carston 2004, Hall 2009, Recanati 2002, Wilson and Sperber 2000, among others) is that the silent object of cases like those in (47)-(51) is provided for pragmatically. Here I will argue that it is not. The argument is based on a comparison between these constructions and a type of construction that is very common in some languages of the world, albeit not in English: noun incorporation. The gist of the argument is that silent objects of verbs such as English *eat* behave in all relevant respects like incorporated objects in West Greenlandic, an Inuit dialect spoken by the majority of the population in Greenland, as described in van Geenhoven (1998). The evidence suggests that the silent object of these English verbs *is* an incorporated object. I.e., it is an object represented by the grammar that undergoes incorporation with the verb, it just happens to be phonologically null. As we will see, noun incorporation in West Greenlandic is a grammatical phenomenon, not a pragmatic one, since it is sensitive to grammatical restrictions. This leaves no other conclusion but that the silent object of these English verbs is provided for grammatically, not pragmatically. It is, in other words, already in the representation that the grammar outputs for sentences such as (47)-(51), though it is phonologically null.

That not all silent objects are interpreted alike, and that they resist pragmatic pressure, as in (59), is already an indication that a pragmatic approach that aims at providing for all silent objects cannot be right. For, how would such an approach prevent unwanted interpretations in examples such as (57), (58) and (59)? How would we explain that, no matter how pragmatically appropriate a definite interpretation

might be in (59), it is just not available? Clearly, something else must be involved here. Equally difficult to explain from a pragmatic perspective is the well-known fact that not all transitive verbs allow silent objects, not even those that constitute near minimal pairs with the verbs in (47)-(51), e.g., *ingest* or *devour* (**I ingested/devoured yesterday*), *overcook* (**I overcooked yesterday*).[22]

Below, in §3.1, I go through the evidence that suggests that incorporated nouns in West Greenlandic and the silent objects of cases such as (47)-(51) are similar. All of the facts presented in this section, considered as a whole, point in the direction of a reduction of English silent indefinite objects to incorporated nouns. Then, in §3.2, I go in detail through the problems that a pragmatic free enrichment approach has with the data in §3.1. I consider three versions of this approach, which vary depending on what exactly free enrichment provides: a contextually salient and relevant thing, a pronoun, or an indefinite (i.e., 'something'). The general problem with all of them is that they cannot make sense of the structural sensitivity that, as we will see, the phenomenon of interest displays. I also consider grammatical, non-incorporating analyses of the facts, and argue against them too. In §3.3, I provide an analysis about how a grammatical, noun-incorporation analysis could account for the data. I refer to the silent objects in (47)-(51) as silent indefinite objects.

Many of the German and Spanish equivalents of the English data below behave as described for English, which suggests that the class of verbs we are investigating here is not just a quirk of English.

### 3.1 If it looks like a duck...

The distribution and interpretation of silent indefinite objects shows the same properties as noun incorporation in West Greenlandic, as described by van Geenhoven (1998) (for more on noun incorporation on this and other languages, see Baker 1988, Bittner 1994, Mithun 1984, and Sadock 1980, among many others)[23]. Noun incorporation is a productive process that yields noun-verb combinations that are themselves verbs. Many native American Indian and Austronesian languages have it (at least, different versions of it). English has processes that are reminiscent of noun incorporation, such as noun-verb compounding, as exemplified in (60):

(60) apartment hunting, potty-training, babysitting, tornado watch...

However, in English, the majority of these compounds are themselves nouns. Sometimes, they can be used as verbs (e.g., *babysit*); even though this is a possibility, this is not a productive way of creating verbs in English.[24] In noun-incorporation languages, it is. Consider the following examples from West Greenlandic (all incorporating data, unless otherwise indicated, is from van Geenhoven 1998):

---

[22] For similar arguments, see Fillmore (1986). For further discussion, see Groefsema (1995) and Iten et al. (2004), among others.

[23] Maria Bittner (p.c.) informs me that there is disagreement as to whether the process van Geenhoven (1998) and others describe as noun incorporation in West Greenlandic really is noun incorporation, as opposed to some other morphological process. For the purposes of the argument in this section, this is not so important: as long as the silent indefinite objects of English behave like other grammatical objects, the argument goes through. Of course, one would want to resolve the matter, but that goes far beyond what I can do in this paper.

[24] Klaus Abels (p.c.) points out that noun incorporation might be a more productive process in German than it is in English, for in German *Auto fahren* 'car drive', *Klavier spielen* 'piano play', *Fahrrad fahren* 'bike ride', *Karten spielen* 'card play', etc. are possible verbs. See also footnote 33.

(61) *West Greenlandic*

| | | | | | |
|---|---|---|---|---|---|
| Angunguu-p | aalisagaq | neri | -v | -a | -a |
| A-ERG | fish.ABS | eat | -IND | -TRAN | -3SG.3SG |

'Angunguuaq ate the/a particular fish'

(62) *West Greenlandic*

| | | | | |
|---|---|---|---|---|
| Angunguaq | tikip | -p | -u | -p |
| A.ABS | arrive | -IND | -INTRAN | -3SG |

'Angunguaq arrived'

West Greenlandic has constructions, such as (61), that look very similar to normal transitive constructions in English, except for the following relevant properties: (a) in (61), the direct object precedes the verb, (b) West Greenlandic is an ergative language, which means that objects of transitive verbs and subjects of intransitive verbs (see (62)) are marked with the same Case (called ABSOLUTIVE; not overt in (61) or (62)), and subjects of transitive verbs are marked with a different Case (called ERGATIVE), (c) West Greenlandic has subject ((61) and (62)) and object ((61)) agreement inflection on the verb, and (d) West Greenlandic has special morphemes for intransitivity (*-u-*) and transitivity (*-a-*). The explicit encoding of all of this information makes it an ideal language to explore the notion of (in)transitivity.

(63) is an example of noun incorporation in this language; the incorporated nouns of interest are in boldface from now on:

(63) *West Greenlandic*

| | | | | | |
|---|---|---|---|---|---|
| Arnajaraq | **eqalut** | -tur | -p | -u | -q |
| A.ABS | salmon | -eat | -IND | -INTRAN | -3SG |

'Arnajaraq ate salmon' (lit. Arnajaraq salmon-ate)

Looking back at (61), we notice that, when the object is incorporated into the verb, it is not marked for Case, the transitive morpheme *-a-* is replaced by the intransitive morpheme *-u-*, the same we saw in (62), and there is no longer any object agreement inflection on the verb. Even though, notionally, the object of *eat* here is *salmon*, formally, the language treats the construction the same way it treats intransitive constructions, which leads us to the conclusion that noun-verb verbs in this language are intransitive verbs. Many new verbs can be formed in this way, e.g., what in English would be 'salmon-eat', 'fruit-eat', 'cod-eat', 'bread-eat', etc.

Notice the difference in meaning between incorporated and non-incorporated objects in West Greenlandic: whereas in (61), the grammatical and notional object is interpreted specifically, in (63) the notional object is interpreted indefinitely. This is the first similarity between incorporated objects and the silent objects we are interested in: their indefinite interpretation (see above).

The second point of similarity is that both incorporated nouns and silent indefinite objects always take (existential) narrow scope with respect to other operators in the sentence (cf. Bittner 1994, Fillmore 1986, Fodor and Fodor 1980, Mittwoch 1982, Wilson and Sperber 2000), such as negation or intensional verbs (both of which are or can be realized as affixes in this language):

(64) *West Greenlandic*

| | | | | | | |
|---|---|---|---|---|---|---|
| Arnajaraq | **aalisaga** | -si | -nngi | -l | -a | -q |
| A.ABS | fish | -buy | -NEG | -IND | -INTRAN | -3SG |

'It is not the case that Arnajaraq bought fish'

(65) *West Greenlandic*

| | | | | | | |
|---|---|---|---|---|---|---|
| Vittu | **cykili** | -ssar | -siur | -p | -u | -q |
| V.ABS | bike | -future | -seek | -IND | -INTRAN | -3SG |

'Vittus is looking for an arbitrary bike'

(64) can only be interpreted as indicated in the translation, i.e., with the incorporated noun taking scope below negation. A wide scope interpretation for the noun (i.e., 'There is/are (a) fish that Arnajaraq didn't buy') is not available; in other words, (64) cannot describe a state of affairs in which Arnajaraq bought some fish and not others, a situation that is compatible with the wide scope reading of the incorporated noun. Similarly, (65) only has the interpretation indicated in the translation and cannot be used to describe a state of affairs in which Vittus is looking for a specific bike, a situation that would be compatible with the wide scope reading of the incorporated noun over the intensional verb.[25] The same behavior can be observe for silent indefinite objects, as shown in (66)-(69):

(66) I didn't eat yesterday
'I didn't eat any food/meals yesterday'

(67) John wants to eat
'John wants to eat food/a meal'

(68) I didn't bake yesterday
'I didn't bake anything bakeable yesterday'

(69) I want to bake
'I want to bake something bakeable'

Neither (66) nor (68) are compatible with a state of affairs in which, yesterday, I ate/baked some things but left others untouched, but exactly in this kind of scenario the wide scope reading of the silent indefinite objects would be true. Likewise, (67) and (69) can only be interpreted unspecifically, i.e., with low scope of the silent indefinite objects with respect to the intensional verb *want*. E.g., (69) can't mean that there is something specific I want to bake, just that I have baking inclinations. That this is so can be seen in the following contrast:

(70) A: John is baking a birthday cake
B: Oh, I want to bake too!
B': Oh, I want to bake one too!

[25] In (65), *-ssar-* is a nominal suffix meaning 'future' (as in 'future wife'). Thanks to Maria Bittner for clarifying this to me.

Clearly, (70)B and (70)B' are not synonymous. With B, the speaker expresses his/her wish to engage in the activity of baking something; with B', his/her with to bake a birthday cake.

This narrow scope property is well-known independently for incorporated objects and for silent indefinite objects but, to my knowledge, a link between the two had not been noticed before.

What this suggests is that (contrary to claims in Recanati (2002) and others), silent indefinite objects are not pronouns. Van Geenhoven (1998) specifically makes this point for incorporated objects in West Greenlandic, as shown in (71):

(71) *West Greenlandic*
[Several months ago, I sent Juuna a parcel$_i$ and some letters.]
Ullumi aatsaat **puurtugar** -si -v -u -q, ...
today first parcel -get -IND -INTRAN -3SG
'Only today he got a parcel.../#Only today he got the parcel$_i$...

Condoravdi and Gawron (1996) and Martí (2006) have made the point with respect to English silent indefinite objects. Here is a contrast observed by Condoravdi and Gawron:

(72) There was a piece of bread on the table but John didn't eat
(cf. *There was a piece of bread on the table but John didn't eat it*)

(73) There was a good job available here but Fred didn't apply
(cf. *There was a good job available here but Fred didn't apply for it*)

*Eat* and *apply for* behave differently in English in that, when they are used with silent objects, the object of *eat* cannot pick up a previously established entity in the discourse, the way the pronoun *it* can. The silent object of *apply for* can do just that. A better paraphrase for *John didn't eat* in (72) is 'John didn't eat anything' (recall that silent indefinite objects always take narrow scope).[26]

Martí (2006) argues that the silent object of *eat* (and, we may add, silent indefinite objects in general) cannot be bound by higher quantificational elements, the way pronouns can. Compare (74) and (75):

[26] (72) can be true in a situation in which John doesn't eat the bread on the table. That is, in fact, predicted by the approach in the text: that there was a piece of bread on the table but John didn't eat anything is also true in that scenario. (72) and the version with anything are both falsified if John eats anything at all, the bread on the table or whatever. The version with it is falsified only if John eats the bread on the table. Deirdre Wilson (p.c.) brings up other cases, such as (i):

(i) John bought pizza and then he ate

According to (i), did John eat the pizza? Yes, that is compatible with what (i) says, as is any situation in which John eats anything at all. Is that a problem for the idea that the silent object of eat is an indefinite, not a pronoun? No, since John bought pizza and then he ate something has the same range of interpretations as (i). In other words, since pizza counts as something, and since pizza is highly salient and relevant in (i), there might be cases in which it looks as though the silent object of eat is establishing an anaphoric relation with a previously introduced entity, but one needs to look at the whole set of facts. And the whole set of facts so far can be described more accurately if one contends, as I do, that the silent object of eat and the other verbs in (47)-(51) is a silent indefinite, a silent 'something' (that is incorporated into the verb).

(74) Whenever John cooks mushrooms, Sally never eats them

(75) Whenever John cooks mushrooms, Sally never eats

(74) has a salient interpretation in which what Sally eats varies with the cooking events, that in which those occasions in which John cooks mushrooms are occasions in which Sally never eats the mushrooms that John cooks on that occasion (she can still eat something else in each one of those occasions). (75) can never have such an interpretation: on those occasions in which John cooks mushrooms, Sally never eats anything at all. That this is so can be seen in (76), where a continuation that makes it explicit that Sally eats something on those occasions, just not the mushrooms, is impossible for (75), though, as (77) shows, such a continuation is compatible with (74):

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

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

The third property that incorporated nouns and silent indefinite objects have in common is that, even though they are not themselves pronouns, they can, at least sometimes, antecede other pronouns (pronouns in West Greenlandic realized as part of the verbal inflection; relevant pronouns in the English examples underlined):[27, 28]

(78) *West Greenlandic*

| | | | | | | |
|---|---|---|---|---|---|---|
| Aani | **qimmi** | -qar | -p | -u | -q | |
| A.ABS | dog | -have | -IND | -INTRAN | -3SG | |
| Miki-mik | ati | | -qar | -p | -u | -q |
| M.-INSTR | name | | -have | -IND | -INTRAN | -3SG |

'Aani has a $dog_i$. $It_i$ is called Miki'

(79) I have just eaten. <u>It</u> tasted really good

(80) I have just finished baking. <u>It</u>'s going to taste fantastic!

Fourth, both incorporated nouns and silent indefinite object must be strictly adjacent to the verb. In West Greenlandic, nothing at all can interfere between the incorporated noun and the verb. With English silent indefinite objects, I argue, the same is true. We test here with sentences containing so-called personal (or non-argumental) datives, which, as I will argue in §3.3, are morpho-syntactically incompatible with silent incorporated nouns. Consider (81), with the personal dative

[27] That parts of words can establish anaphoric relations outside the containing word is not that surprising, given facts like (i):

(i) John is a book dealer. He sells them for several publishers

[28] Notice that in the English examples, the verb in the second sentence is *taste* in order to prevent an alternative analysis in which the pronoun that is its subject picks up the events of eating, baking, etc. as antecedent, in which case the data wouldn't tell us anything about the anteceding possibilities of silent indefinite objects (cf. **Eating strawberries tasted good*, or **Baking muffins tasted good*). Thanks to Joy Philip for pointing out this possibility to me.

pronouns *myself/yourself/himself/ourselves/themselves* (semantically and syntactically different from the corresponding homophonous reflexive pronouns). These sentences are grammatical in certain dialects and registers of English (cf. Christian 1991, Horn 2008 and others; the use of *me/you/him*, etc. in certain U.S. dialects seems to be similar). I will be exemplifying here with Scottish English (all Scottish English judgments from Andrew Weir, p.c.):

(81) *Scottish English*
a. I ate myself an apple
b. John baked himself a wonderful cake
c. We hunted ourselves a rabbit
d. I smoked myself a cigar

Personal datives of this kind are always coreferent with the subject, and add, at least in many cases, a volitional ingredient to the semantics of the sentence, so that any of the sentences in (81) are inappropriate if the subject does not perform the action indicated of his/her own accord. These datives are not a quirk of (non-standard) English, many other languages have them (Romance languages, German, Slavic languages) (for more on these datives, see §3.3). Interestingly, notice what happens if we try to use a personal dative with a silent indefinite object:[29]

(82) *Scottish English*
a. I ate yesterday
b. I ate myself yesterday
c. John baked yesterday
d. John baked himself yesterday
e. We hunted yesterday
f. We hunted ourselves yesterday
g. I smoked yesterday
h. I smoked myself yesterday

The forms *myself*, *himself*, etc. in (82)b, d, f or h can never function as personal datives in the dialects and registers where they are used as such; these sentences can only have reflexive interpretations, if meaningful at all. Because, as I will argue, an incorporating analysis is prevented in (82)b, d, f and h by the presence of the personal dative, the sentences cannot be read with an understood indefinite object, as opposed to their dative-less counterparts. An alternative reflexive analysis, in which *myself*, etc. function as regular direct objects, is, on the other hand, available, hence the amusing reflexive interpretations of the examples in question. *A priori*, these facts constitute one of the biggest problems for pragmatic free enrichment: if pragmatic free enrichment can operate on, e.g., (82)a, there is just no reason why it shouldn't operate on the minimally different (82)b. We will see the argument in full in §§3.2-3, once we look at the details of the incorporation process and the morpho-syntactic nature of personal datives.

There are two differences between incorporated nouns in West Greenlandic and silent indefinite objects that we need to discuss. The first difference is that West Greenlandic, as well as other incorporating languages, allows its incorporated nouns to be externally modified, as shown in (83)-(85):

[29] Thanks to Klaus Abels for pointing out this pattern to me.

(83) *West Greenlandic*

| | | | | | | |
|---|---|---|---|---|---|---|
| Esta | nutaa-mik | **aalisagar** | -si | -v | -u | -q |
| E.ABS | fresh-INSTR.SG | fish | -get | -IND | -INTRAN | -3SG |

'Esta got fresh fish'

(84) *West Greenlandic*

| | | | | | |
|---|---|---|---|---|---|
| Marlun-nik | **ammassat** | -tur | -p | -u | -nga |
| Two-INSTR.PL | sardine | -eat | -IND | -INTRAN | -1SG |

'I ate two sardines'

(85) *West Greenlandic*

| | | | | | |
|---|---|---|---|---|---|
| Arne | **qatanngute** | -qar | -p | -u | -q |
| A.ABS | sister | -have | -IND | -INTRAN | -3SG |

[$_{RC}$ Canada-mi najuga -lim -mik]
C-LOC home -have.REL.INTRAN -INSTR.SG
'Arne has a sister who lives in Canada'

Adjectives, numerals, relative clauses and others can modify a noun that has undergone incorporation; the evidence shows that these modifiers are not themselves incorporated, so the modification must happen at a distance, externally. This is not something that English silent indefinite objects can do:[30, 31]

(86) *John ate hot (cf. *John ate hot food/a hot meal*)
(87) *John ate two (cf. *John ate two meals*)
(88) *John eats that tastes good (cf. *John eats food/meals that taste(s) good*)
(89) *John baked wonderful (cf. *John baked a wonderful cake*)
(90) *John smoked that were bought ages ago (cf. *John smoked cigarettes that were bought ages ago*)

However, not all incorporating languages allow incorporated nouns to be externally modified. I exemplify with Kusaiean, an Austronesian language spoken on the island of Kusaie, one of the eastern Caroline Islands (see Lee 1975, Rosen 1989):

(91) *Kusaiean*

a. El twem-lah mitmit sahfiht sac
He sharpen.TRAN-PAST knife dull the
'He has sharpened the dull knife'

b. El twetwe mitmit-lac
He sharpen.INTRAN knife-PAST
'He has knife-sharpened'

[30] François Recanati (p.c.) brings to my attention languages, like French, in which examples such as (86) are possible. Before we take that to be evidence for anything, we need to see whether these languages are not object *pro* languages, i.e., languages which allow *pro* in object position, and in which secondary predication would look just like (86). Such languages are irrelevant for the task at hand. English doesn't allow *pro* in object position (or in subject position).

[31] Strings such as *John ate*/*baked*/*smoked*/*hunted two* are possible in English, though these look like they are the result of N-ellipsis, as in (i):

(i) A: I ate three sardines
B: John ate two ~~sardines~~

c. *Nga twetwe **mitmit** sac
I sharpen knife the
'I knife-sharpen the'
d. *Nga twetwe **mitmit** sahfiht sac
I sharpen knife dull the
'I knife-sharpen the dull'

In Kusaiean, transitive verbs such as *twem* 'to sharpen' can be transformed into intransitive verbs by deleting the last consonant and then reduplicating what remains, giving rise to *twetwe*. (91)a shows a normal transitive sentence; we observe the somewhat exotic word order found inside of the noun phrase. (91)b contains an incorporated object (called 'included object' in Lee's grammar). The verb in this sentence is correspondingly marked for intransitivity. In addition, the tense verbal suffix *–lah* is attached to the noun instead of the verb (in the form of *–lac*), suggesting that the whole complex *twetwe mitmit* 'knife-sharpen' is being treated as a verb. The important examples are (91)c and (91)d: when noun incorporation has occurred, it is not possible for determiners, adjectives or other modifiers (such as numerals; example not provided) to relate to that noun. This is in contrast to West Greenlandic, where adjectives ((83)) and numerals ((84)) can certainly externally modified incorporated nouns.[32] Kusaiean noun incorporation *does* have some of the properties that are characteristic of noun incorporation. For example (Lee 1975: 272), manner adverbs and the question word *fuhkah* 'how' can appear before or after objects in normal transitive sentences, but neither can occur in between the intransitive form of the verb and the incorporated object—i.e., there is an adjacency restriction between the incorporated-into verb and the incorporated noun.

It doesn't seem, then, that this difference between West Greenlandic incorporated nouns and English silent indefinite objects is a problem for the idea that English silent indefinite objects are incorporated objects, for there are incorporated objects in other languages that don't allow external modification. This would suggest that probably Kusaiean is a better language to compare English with, except that the semantic properties of incorporated nouns are much more thoroughly described for West Greenlandic.[33, 34]

The second difference is that, in West Greenlandic, the object of a verb formed by incorporation can appear in the sentence marked with special Case (e.g., Instrumental). This is known as the antipassive construction:[35]

[32] Lee (1975) does not provide, as noted, examples with numerals as external modifiers, but notes in the text (p. 271) that numerals cannot modify incorporated nouns. Also, with examples such as that in (91)d, he doesn't provide the minimal pair that shows that adjectives by themselves cannot modify incorporated nouns, but we gather that this is the case from what he says in the text (p. 271).

[33] Klaus Abels (p.c.) points out that, if it is indeed true that German *Auto fahren* 'car drive', *Klavier spielen* 'piano play', etc. are examples of verbs formed via noun incorporation (recall footnote 24), then German is another case in which incorporated nouns cannot be externally modified, for modification by adjectives, numerals, etc. in these cases is impossible.

[34] Another way to look at the data is that the process that English silent indefinite objects go thorough is not noun incorporation but a related one, perhaps noun stripping (see Gerdts 2001). Noun stripping does not allow external modification.

[35] Some authors, van Geenhoven included, extend their treatment of noun incorporation to the antipassive.

(92) *West Greenlandic*

| | | | | | |
|---|---|---|---|---|---|
| Angunguaq | **aalisakka**-mik | neri | -v | -u | -q |
| A.ABS | fish-INSTR | eat | -IND | -INTRAN | -3SG |

'Angunguaq ate fish'

This sounds very exotic, probably something that English doesn't have. The closest we can come to the special Case on the object we see in (92) is prepositions like *with*, perhaps *on*. But maybe we just wouldn't expect English silent indefinite objects to give rise to antipassive constructions like (92), since they are silent—can prepositions in English appear with phonologically unrealized objects to begin with?[36]

(93) *I baked with
(94) *I hunted with/on

We can also look at the issue differently. While English doesn't allow (95)-(97), Spanish *does* allow (98) and (99):[37]

(95) *We ate with paella
(96) *I hunted on deer
(97) *I baked with brownies

(98) *Spanish*

| | | | |
|---|---|---|---|
| Ayer | comimos | con | paella |
| yesterday | ate.IND.1PL | with | paella |

'Yesterday we ate paella'

(99) *Spanish*

| | | | | | |
|---|---|---|---|---|---|
| Hoy | (nos) | hemos | desayunado | con | tostadas |
| today | us | have.IND.1PL | had.breakfast | with | toast |

'Today we had toast for breakfast'

While Spanish is like English in not incorporating overt objects, it may be that it still has something that resembles the antipassive construction with overt objects. I must leave this issue here, for much further research is required to draw informed conclusions.

To sum up. Silent indefinite objects in English and incorporated nouns in West Greenlandic share a number of characteristics: they are interpreted as indefinites, they always take narrow scope, they are not pronouns, they can antecede pronouns, and they must be strictly adjacent to the verb. The difference in the possibility of external modification was argued not to be a problem for the reduction of the two phenomena to a common core, since not all incorporating languages allow their incorporated

[36] English allows preposition stranding, of course, as in (i) and (ii):

(i) Mary is the woman John went to the movies with
(ii) Which table did you leave the book on?

But preposition stranding occurs in the context of movement (relativization, as in (i), or wh-movement, as in (ii)), so it is to be kept separate from the data in the text.

[37] Not all speakers seem to allow (98); (99) is widely accepted.

nouns to be externally modified. More research is called for in order to deal with the second difference, the potential availability of the antipassive with silent objects.

The argument to be made on the basis of these similarities is this: if English silent indefinite objects look like they are incorporated nouns, then that is because they *are* incorporated nouns.

### 3.2 Other analyses

I consider three versions of the free pragmatic enrichment approach, depending on what one assumes this process to contribute: a contextually salient and relevant noun, a pronoun, or an indefinite (i.e., 'something'). The pragmatic free enrichment approaches say that the grammar of English produces strings such as *I ate*, *I baked*, etc. and that it is a process of free enrichment that takes place in the pragmatics that adds the notional objects to these representations. Free enrichment is subject to constraints of relevance, salience, etc. and thus, in a context such as that in (100), it adds 'pizza', a pronoun that picks up the pizza as its referent, or 'something', depending on what one thinks enrichment adds, to the representation for (100)B that the grammar gave as output:

(100) A: John bought pizza
B: Let's eat then

In the indefinite version of this approach, further pragmatic pressure ensures that we understand that what B wants is to eat pizza (perhaps through a further process of narrowing down). In any case, this addition is not grammatical, so we don't expect it to be subject to grammatical constraints.

These three versions of the pragmatic approach have corresponding grammatical versions: it could be that any of these three things is added by the grammar, not by the pragmatics. In principle, because these items are introduced by the grammar, we would expect them to be sensitive to grammatical constraints.

The grammatical, noun-incorporation approach says that silent indefinite objects are silent incorporated objects. They are grammatical objects, hence manipulated by the grammar and introduced into grammatical representations. They have indefinite semantics and undergo a process of noun incorporation. They are subject to the same restrictions that operate on incorporated nouns; in particular, we expect these restrictions to be grammatical.

In both the pragmatic and the noun-incorporation approaches, the verbs *eat*, *bake*, *hunt*, etc. have intransitive counterparts, and it is these intransitive forms that are used in examples such as (47)-(51). In the pragmatic approaches, this must be so because, grammatically, the verbs don't have an object, and if there were no intransitive counterparts for them, the result would be ungrammatical, as much as (101)-(104) are ungrammatical (data from work together with Tom Roeper):

(101) *Mice chase
(102) *John is running (for *John is running a business*)
(103) *Don't desecrate with senseless development!
(for *Don't desecrate our beaches with senseless development*)
(104) A: My neck hurts
B. *Well, don't crane!

In the grammatical, noun-incorporation account, the verbs are intransitive because that is what verbs that have been incorporated into with a noun are like, and we have plenty of evidence from West Greenlandic that indicates so. In the grammatical, non-incorporation approaches, however, the verbs are transitive. It's just that you can't hear their object, but it is there, a *bona fide* direct object (a silent noun, a silent pronoun, a silent indefinite). Clearly, the evidence from West Greenlandic speaks against the three grammatical, non-incorporating approaches. Further evidence from this language, in (105), points in the same direction:

(105) *West Greenlandic*

| | | | | |
|---|---|---|---|---|
| Angunguaq | neri | -v | -u | -q |
| A.ABS | eat | -IND | -INTRAN | -3SG |

'Angunguaq was eating (something)'

The verb *neri-* 'eat' can also be used with a silent object in West Greenlandic. The construction bears the clear marks of intransitivity: the intransitive *-u-* morpheme on the verb, the lack of object agreement on the verb, and the ABSOLUTIVE Case on the subject.[38] This implies that the grammar generates intransitive constructions in the cases at hand, so that grammatical, non-incorporating analyses can be ruled out, in particular, the version which has the grammar add implicit indefinites, which highlights the importance of the extra assumptions made by the grammatical, noun-incorporation approach.[39, 40, 41]

Another reason for rejecting the grammatical, non-incorporating approaches is that, despite the fact that, in principle, we can build into them structural sensitivity, they don't quite deliver what we want for the personal dative examples. For example, there is no problem in having a personal dative combined with an overt indefinite, e.g., 'something', as shown in (106):

(106) *Scottish English*

a. I ate myself something
b. I smoked myself something
c. I baked myself something
d. I hunted myself something

[38] Kusaiean, the Austronesian language we discussed above, seems to behave in the same way (Lee 1975: 274): only the intransitive form of the verb is possible if the object is implicit.

[39] One could, of course, assume that what the grammar adds here (or, in fact, what it adds in the pragmatic approaches), is not just simple nouns, pronouns, or indefinites, but nouns, pronouns or indefinites that denote functions that can take intransitive verbs as arguments (see Recanati 2002). This is compatible with the West Greenlandic evidence, though it would perhaps be strange in the grammatical, non-incorporating approach that it must be the intransitive form of the verb that figures in the construction—why couldn't these functions take transitive verbs as arguments? Whatever one thinks of this kind of proposal, we have other reasons, as discussed immediately below, for rejecting these grammatical, non-incorporating approaches.

[40] Fodor and Fodor (1980) and Dowty (1981) also proposed that the verbs that take silent implicit objects come in transitive and intransitive versions. In particular, Dowty's proposal (which involves a lexical rule) is not very different from what I will propose here.

[41] Gerdts (2001: 88-89) points out that this detransitivizing effect is not universal, as in some incorporating languages (e.g., Southern Tiwa and Rembargna), the incorporated noun still triggers object agreement or the subject of the clause is still in ERGATIVE Case. I leave it for further research what conclusions to draw from this for the issues that occupy us here.

So we would have no principled reason to expect what we actually find, namely, that there is an adjacency requirement between the verb and its silent indefinite object. A pronoun version of the non-incorporating, grammatical approach would have an advantage here because all of the examples in (107) are out:

(107) *Scottish English*
a. *I ate myself it
b. *I smoked myself it
c. *I baked myself it
d. *I hunted myself it

However, we saw evidence in §3.1 that English silent indefinite objects are not pronouns (this, of course, also speaks against a pragmatic free enrichment account that adds pronouns).

The main reason for rejecting the pragmatic free enrichment approaches is that we don't expect any structural constraints, since free enrichment is not a structural process or a process that operates on structures. So the fact that personal datives interfere with silent indefinite objects is not expected at all. I.e., in these approaches, there is no reason why (108), given the right circumstances (relevance, salience, etc.), couldn't be enriched into a language of thought representation equivalent to (109), contrary to fact:

(108) *Scottish English*
I ate myself

(109) *Scottish English*
I ate myself an apple/something/a meal

One could try to capture the data in §3.1 by claiming that noun incorporation is not a grammatical process but a pragmatic one. We would then not be surprised by the similarities between West Greenlandic noun incorporation and English silent indefinite objects, and this would suggest that English silent indefinite objects should be handled by the pragmatics. But it is completely mysterious how a pragmatic approach to noun incorporation would get off the ground, given, in particular, the structural effects we have seen here.

It is not clear either how any of these non-incorporating approaches (whether grammatical or pragmatic) can account for the narrow scope data. The accounts that add a silent noun or a silent pronoun cannot appeal to scope because they don't introduce a scopal element. The accounts that add a silent indefinite do, but it is unclear why this indefinite would be forced to take narrow scope.[42]

That English silent indefinite objects can antecede pronouns argues in favor or against none of the approaches I consider here—except for the fact that it is a property of incorporated nouns, so we expect it if English silent indefinite objects are incorporated nouns. Languages have pronouns that don't need to pick up their

[42] Languages *do* have indefinites that necessarily take narrow scope, e.g., NPIs like English *any*. But English silent indefinite objects are not NPIs, since they can appear in non-negative simple sentences (e.g., *I ate*). Another well-known example of narrow-scope indefinite is, precisely, incorporated objects, as well as bare plurals, which, in fact, some researchers (e.g., van Geenhoven 1998) reanalyze as incorporated objects. Notice that, as Dowty (1981: 82) notes, *something* in English actually prefers to take wide scope with respect to negation.

antecedents from the linguistic context, so facts such as those in (79) and (80), where we see English silent indefinite objects anteceding pronouns, tell us nothing about the grammatical vs. pragmatic status of those objects.

This leaves us with the grammatical, noun-incorporation approach. In this approach, whatever is responsible for the behavior of incorporated nouns in languages like West Greenlandic and others is responsible for the behavior of silent indefinite objects in English. The only difference is in phonological realization: silent indefinite objects are, well, silent, whereas incorporated nouns need not be (though, it seems, they *can* be, as in (105)).

### 3.3 A grammatical, noun-incorporation analysis

Once we have decided that English silent indefinite objects are silent incorporated nouns that are provided for grammatically, the next question we need to ask is: how does the mechanism of noun incorporation work? This is a complicated question, for there are different analyses in the linguistic literature that have been proposed for this process (e.g., lexical, syntactic, semantic) (and different kinds of incorporation). It is out of the scope of this paper to decide which analysis of noun incorporation is best for the data presented here. What I will do is provide a plausible syntactic analysis of the data, ignoring how to distinguish it from other (grammatical) analyses of noun incorporation. See Gerdts (2001) and Haugen (2008) for overviews of the phenomenon and of the argumentation, and for further discussion.

In syntactic incorporation as proposed by Baker (1988), the noun that is to be incorporated is first represented syntactically. It subsequently undergoes syntactic head-to-head movement, adjoining to the verb (thus creating another V-node), as shown in (110) (irrelevant details omitted). *Ie* stands for 'indefinite empty element'; that is, I assume that the empty object comes with indefinite (i.e., existential) semantics:

(110) $[_{TP}$ subject $[_{VP}$ $[_{V}$ *ie* V] ]]

In languages that allow external modification of incorporated objects, we may choose to represent the trace of *ie* in its base position, since this would be one way of representing the possibility that these nouns can be externally modified; for the case of English, it is thus probably better not to do so. We can also model the obligatory low scope of English silent indefinite objects as a direct consequence of this analysis: being inside V, *ie* cannot take outside of it.

In what remains of this section, I provide the grounds on which to build the structural constraint that personal datives are incompatible with noun incorporation of silent indefinite objects as conceived of in (110). The idea is that the constraint can be understood as an instance of what Pesetsky (1995: 75) calls *Myers's generalization* (Myers 1984):[43] "zero-derived words do not permit the affixation of further derivational morphemes". Verbs that are incorporated into by silent indefinite objects are zero-derived words in Pesetsky's sense (that is, they have undergone a process of derivation in which a null affix is attached to them). Personal datives, as we will see, are introduced into the structure by functional applicative heads that count as derivational morphemes. Hence, following Myers's generalization, applicative heads

[43] Thanks to Klaus Abels (p.c.) for suggesting this idea to me.

cannot apply to verbs that have incorporated a null object. This is a grammatical constraint that cannot be understood on pragmatic grounds, for the workings of affixation are not governed by pragmatic factors. I suppose that even defenders of free pragmatic enrichment would grant that much.

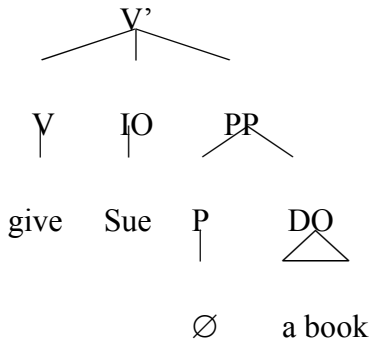
It will take some work to provide all the background necessary to understand how the constraint works. I appeal to the reader for his patience.

It is common in grammatical analysis to propose the existence of null *inflectional* morphemes. Such affixes are assumed to operate in the derivation of, e.g., plural *sheep* from singular *sheep*, or in the derivation of participial *come* from infinitive *come*. It is less common to assume the existence of null *derivational* morphemes, i.e., those that can change the category of a lexical item (e.g., *category* → *categorize*). Yet, it can be useful in relating pairs such as *support* (verb) and *support* (noun), or *immortal* (adjective) and *immortal* (noun). Pesetsky (1995) provides an extended argument for the existence of null derivational morphemes. Cases in which he specifically argues for a null derivation morpheme are the causative use of English verbs like *anger* or *sadden*, the English double object construction, the use of English adjectives like *nervous* or *happy* when they are predicated of the behavior of animate beings (e.g., *her manner was nervous*) vs. when they are predicated directly of animate beings (e.g., *Mary is nervous*), and others.

The case that is most relevant for us is the double object construction. Pesetsky posits a null affix that is blamed for a number of asymmetries between indirect objects and direct objects in the English double object construction. These asymmetries can be understood if the direct object is introduced by a null preposition that subsequently incorporates into the verb. Consider (111), with the (partial) structure in (112) ('IO' stands for 'indirect object', and 'DO' for 'direct object'):

(111) Bill gave Sue a book

(112)




In (112), the indirect object, the dative argument, *Sue*, is structurally higher (i.e., it c-commands) the direct object, *a book* (as argued for in Barss and Lasnik 1986).[44] C-command is a key notion involved in anaphor binding, NPI licensing, quantifier-variable binding, etc. Anaphors as direct objects can be bound by indirect objects, not the other way around ((113)-(114)). NPIs are licensed as direct objects from indirect object licensers, not the other way around ((115)-(116)). And pronouns in the direct object can be bound by quantifiers in the indirect object position, not the other way

[44] The debate in Jackendoff (1990) and Larson (1988, 1990) notwithstanding. Pesetsky (1995: chapter 5) provides several reasons why the generalization in the text is correct.

around ((117)-(118)):[45]

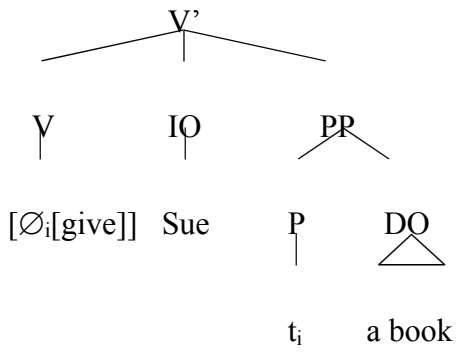
(113) I showed John$_i$ himself$_i$ in the mirror
(114) *I showed himself$_i$ John$_i$ in the mirror

(115) I showed nobody anything
(116) *I showed anyone nothing

(117) I denied [every worker]$_i$ his$_i$ paycheck
(118) *I denied its$_i$ owner [every paycheck]$_i$

In the derivation of (111), a second step after (112) incorporates the null preposition into the verb, in a manner similar to what we said above for (110):

(119)




Because the verb is now a zero-derived morpheme, it is not possible to add further derivational affixes to it, as stated by Myers's generalization. Pesetsky argues that that is why double objects constructions cannot nominalize, an observation due to Kayne (1984: 156):

(120)
a. *Bill's gift of Sue (of) a book
b. Bill's gift of a book to Sue
c. Bill gave a book to Sue

(120)a is an attempt at nominalization in the case of the double object construction, and it fails. Notice that a nominalization like (120)b, based on the *to*-version of the sentence in (120)c, is, on the contrary, possible. This is because in the *to*-dative, there is no null affix that incorporates into the verb, but an overt preposition *to*. Pesetsky argues that Myers's generalization is also behind some of the patterns that we find in the other cases of null affixes that he discusses.

I propose a similar analysis for the fact that personal datives are impossible with the silent indefinite objects. I make a number of assumptions about the syntax and semantics of personal datives that depart from the proposal for double object constructions in Pesetsky (1995). I do that for mainly two reasons. First, certain relevant advances in our understanding of the syntax of dative arguments have taken place since the publication of Pesetsky (1995), most notably in Pylkkänen (2008).

[45] In the *to*-version (i.e., *Bill gave a book to Sue*), the c-command relations are reversed and the data is correctly predicted to be the mirror image of what we find in the text, as discussed in Larson (1988) and Pesetsky (1995: 126), among others.

Second, it would not seem appropriate to directly import the analysis of the double object construction in Pesetsky (1995) for the personal dative construction, for the two constructions are not the same. I will, however, stick to Myers's generalization and suggest that the constraint we have observed with the personal dative is part of a broader, grammatical generalization.

In certain ways, the analysis I propose here for personal datives comes close to some of the many analyses that have been proposed for what is known in the literature on Spanish as *aspectual 'se'*, *agreeing datives*, etc., and which I call here personal datives, particularly Macdonald (2004) (see also de Miguel and Fernández Lagunilla 2000, Franco and Huidobro 2008, Gutiérrez Ordóñez 1999, McCready and Nishida 2008, Nishida 1994, Sanz 2000, Zagona 1996, among others). Unfortunately, I won't be able to do justice to this body of literature in this paper. Many of the insights of these analyses, however, can be easily accommodated into the analysis I present below—they mostly have to do with aspectual restrictions, which could be traced back to the applicative head I propose. I will touch upon these restrictions only briefly here.

Pylkkänen (2008), as much as Pesetsky (1995) and numerous others, including myself, assumes that at least certain morphological processes are actually syntactic processes. She proposes a syntactic treatment of applicative morphemes, morphemes that in many languages are used to introduce dative arguments. I will propose below that personal datives are also introduced by a (null) applicative morpheme. An example comes from Chaga. Benefactives in Chaga, a Bantu language, are introduced via the applicative verbal affix *-í-* (data from Bresnan and Moshi 1993: 49-50):

(121) *Chaga*

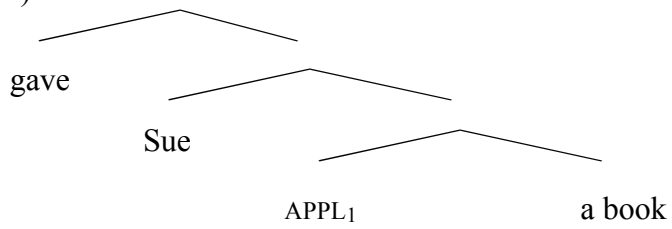
a. N -½a -½ý -lyì -í -à mkà kélyá
FOC -1ST SG -PRES -eat -APPL -FV wife food
'He is eating food for his wife'

b. N -½a -i -zrìc -í -à mbùyà
FOC -1ST SG -PRES -run -APPL -FV friend
'He is running for a friend'

Applicative morphemes are functional heads in the syntax that introduce dative arguments in their specifier, and which have benefactive, malefactive, source, etc. semantics. Pylkkänen assigns the English double object construction a structure like that in (122), where $\text{APPL}_1$ is the functional head of interest here (irrelevant details omitted):[46]

[46] Verbs in this account, following the neo-Davidsonian tradition (Parsons 1990, building on work by Davidson 1967), denote predicates of events. Arguments of the verb are added as participants of the event. Sentences express quantification over events. Pylkkänen goes further than that by claiming that the syntax of sentences is itself neo-Davidsonian (like Kratzer 1996 and others). Pylkkänen (2008: chapters 1-2) provides all the necessary syntactic and semantic detail to understand the proposal fully, but it would be too tedious to include all of that detail here. Because dative arguments can have different semantics and attach to different points in the tree, different applicative heads are proposed, hence their numbering in the text.

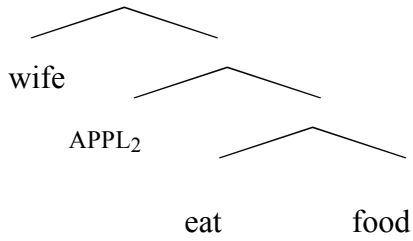
(122)




In the case of the English double object construction, not much is different from Pesetsky (1995) (see (112), (119)), except that the null preposition is a null applicative head, and except for the lack of incorporation of this head into the verb. Pylkkänen is not interested in the kinds of asymmetries in (120), but obviously it is straightforward to maintain Pesetsky's insight here: in a further step after (122), the applicative head obligatorily incorporates into the verb and the asymmetries follow as part of Myers's generalization, as before.

The applicative head of the English double object construction is a low applicative head, for it attaches between the two objects and imposes a relation between them and the verb. For the Chaga construction above, a high applicative head is used instead:

(123)




The dative argument is always generated right above the position of APPL, and ends up being in the benefactive, etc. relation, as desired. Because high applicative heads take the whole VP as their argument, they can occur both with transitive and with intransitive verbs. Low applicative heads, as predicted by this account, can only occur with transitive verbs, and this seems to be correct, given (124):

(124) *I ran him (intended meaning: I ran for him)

The distinction between transitive and intransitive (unergative) verbs here is crucial, for it is what allows us to distinguish between high and low applicative heads. In fact, Pylkkännen uses (in)transitivity as a diagnostic and shows that it provides good results when applied cross-linguistically.

If one looks only at Scottish English, the most straightforward conclusion is that personal datives are introduced by low applicative heads. Personal datives in Scottish English cannot appear with intransitive (unergative) verbs:[47, 48]

[47] The examples in (125) are ungrammatical on the personal dative interpretation in the relevant dialects/registers; they may be grammatical on other interpretations, but those are irrelevant here.

[48] Unergative verbs have only one argument, an external argument. These must be distinguished from unaccusative verbs, which also have only one argument, but an internal argument. Both are called intransitive verbs. The importance of this distinction for our purposes is that, if the restriction affected only unaccusatives, then we would need to say something else to prohibit them from appearing with English personal datives, for, underlyingly, the structure of transitive and unaccusative VPs contains an internal argument. See also footnote 52.

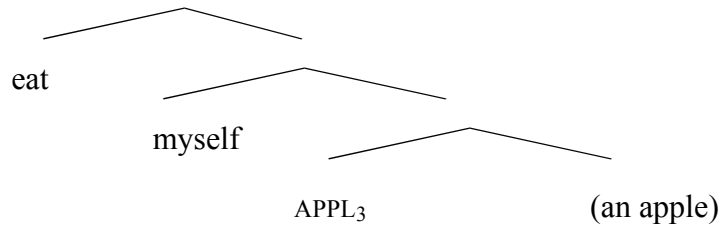
(125) *Scottish English*
a. *I danced myself
b. *I slept myself

Further evidence for this position comes from the fact that personal datives impose (aspectual) restrictions on the direct object, a fact often noted in the literature on Spanish personal pronouns that we come back to below (de Miguel and Fernández Lagunilla 2000, Franco and Huidobro 2008, Gutiérrez Ordóñez 1999, Macdonald 2004, McCready and Nishida 2008, Nishida 1994, Sanz 2000, Zagona 1996 and others):

(126) *Scottish English*
a. *I ate myself apples
b. I ate myself some apples

Thus, a plausible structure is as follows:[49]

(127)




The personal dative is an anaphor that must be coindexed with the subject, though, for ease of exposition, subjects are not represented in the structures I discuss. The account of the incompatibility of silent incorporated objects with personal datives is that noun incorporation is a zero-derivation process, and that further incorporation of $\text{APPL}_3$ into the verb is not allowed, given Myers's generalization.[50] For the same reasons, the reverse order of incorporation also fails. Notice that it is not possible to nominalize verbs that come with personal datives, a fact predicted by Myers's generalization because the process of nominalization, a derivational process, would have to apply to a verb that has already undergone zero-derivation (the applicative head incorporates into it):

(128) *Scottish English*
a. *The/My constant smoking (of) myself of marihuana
b. *The/His constant eating (of) himself of porridge

We come back to (127) below. At this point, however, it is important to realize that a pragmatic free enrichment account of the pattern of interest resurfaces. Consider that pattern again:

(129) *Scottish English*
a. I ate myself an apple
b. John baked himself a wonderful cake

[49] I will not attempt to provide a detailed semantics for $\text{APPL}_3$ here, but it is clear that a new head is needed, for it has different semantics from Pylkkänen's $\text{APPL}_1$ and $\text{APPL}_2$.
[50] In addition, this derivation also violates locality conditions on head movement.

c. We hunted ourselves a rabbit
d. I smoked myself a cigar

(130) *Scottish English*
a. I ate yesterday
b. I ate myself yesterday
c. John baked yesterday
d. John baked himself yesterday
e. We hunted yesterday
f. We hunted ourselves yesterday
g. I smoked yesterday
h. I smoked myself yesterday

If personal datives are introduced by low applicative heads, then they must always appear with transitive verbs and their objects. But then, there is a straightforward reason why, e.g., (130)b cannot be enriched to mean 'I ate myself something yesterday': low applicative heads do not combine with intransitive verbs, and we know, given the evidence from West Greenlandic discussed in §3.2, that *eat*, when interpreted with a silent indefinite object, is an intransitive verb. Therefore, the only version of the verb that is possible here is the transitive one, hence the reflexive interpretation of the pronoun.

This, however, is based on the partial view afforded by English. Spanish behaves like English in that it has a class of verbs that are interpreted with silent indefinite objects and that display the same properties we discussed in §3.1. (131)-(136) illustrate:

(131) *Spanish*
a. Hoy he comido cocido
today have.1$^{st}$SG eaten cocido
'Today I ate cocido'
b. Hoy he comido
today have.1$^{st}$SG eaten
'Today I ate something'

(132) *Spanish*
a. Hoy no he comido
today not have.1$^{st}$SG eaten
'I haven't eaten anything today'
b. Quiero comer
want.1$^{st}$SG to.eat
'I want to eat something'

(133) *Spanish*
Acabo de terminar de comer. Estaba buenísimo
finish.1$^{st}$SG of to.finish of to eat was.3$^{rd}$SG very.tasty
'I just finished eating. It tasted very good'

(134) *Spanish*
a. Comí
eat.IND.PAST.1ST.SG
'I ate'
b. Me comí una manzana
me eat.IND.PAST.1ST.SG an apple
'I ate myself an apple'
c. Me comí
me eat.IND.PAST.1ST.SG
'I ate myself'/#'I ate something'

(135) *Spanish*
a. Comí manzanas
eat.IND.PAST.1ST.SG apples
'I ate apples'
b. *Me comí manzanas
me eat.IND.PAST.1ST.SG apples
'I ate myself apples'

(136) *Spanish*
a. Bailé un tango
danced.1stSG a tango
'I danced a tango'
b. Me bailé un tango
me danced.1stSG a tango
'I danced myself a tango'
c. Recorrieron la isla a pie
crossed.3rdPL the island to foot
'They crossed the island on foot'
d. Se recorrieron la isla a pie
them crossed.3rdPL the island to foot
'They crossed themselves the island on foot'
(data based on Gutiérrez Ordóñez 1999: 1910)

Importantly, the Spanish personal dative behaves just like its English counterpart, as shown in (134)-(136), *except that it can appear with certain intransitive (unergative) verbs as well*, as shown in (137) (contra Franco and Huidobro 2007, Nishida 1994 and Strozer 1978 but as pointed out in Gutiérrez Ordóñez 1999: 1911, McCready and Nishida 2008, and others):[51, 52]

[51] It seems that the volitional component is not always straightforwardly present across the use of the personal dative in either English or Spanish; e.g., there is no volitional component involved in (i):

(i) *Scottish English*
I had myself an accident

It is a bit subtle in some of the examples in (137). That the semantics of $APPL_3$ might not be uniform is not surprising, for neither is that of other dative arguments. That is the reason why Pylkkänen, for example, proposes two kinds of $APPL_1$.

[52] Notice that these verbs are true unergatives in Spanish, and, crucially, not unaccusatives (though personal datives in Spanish are also possible with unaccusatives). For example, their past participles cannot be used as attributive adjectives the way the past participle of e.g., *die*/*morir* can (*a dead man*,

(137) *Spanish*

a. Ánde-me yo caliente, ría-se la gente
walk.1stSG.SUBJ-me I warm laugh.SUBJ-them the people
'Let me be warm and let people laugh' (Spanish proverb)

b. La gente (se) ríe
the people se laugh.3rdSG.IND
'People laugh (willingly/with enjoyment)'

c. (Me) vuelvo sin demora
me return.1stSG.IND without delay
'I return (willingly) without delay'

d. Pedro (se) sonrió al ver a la niña
se smile.3rdSG.IND.PAST upon see to the girl
'Pedro smiled upon seeing the girl'

e. Juan (se) paseó por los puestos de la feria
se walked around the stands of the fair
'Juan took a walk around the fair stands'

These facts from Spanish are very relevant for the task at hand because they suggest that a grammatical, noun-incorporation analysis of silent indefinite objects is, after all, correct, since the pragmatic account does not generalize. The pragmatic account of the English facts says that silent indefinite objects are incompatible with personal datives because personal datives can only appear with transitive verbs, not with intransitive (unergative) verbs. Thus, the grammar generates an ungrammatical structure when it combines the two, and free pragmatic enrichment cannot change that. However, in Spanish, personal datives are indeed possible with intransitives (unergatives), so appeal to an incompatibility with intransitivity is not an option here. Yet, importantly, Spanish behaves exactly like English when it comes to the incompatibility of silent indefinite objects with personal datives. This strongly suggests that the source of the restriction cannot be what the pragmatic account would take it to be. That is, the restriction that personal datives cannot appear with intransitives in English, while a fact of English, must be independent of the account of the incompatibility of personal datives with silent indefinite objects in this language.

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*un hombre muerto*): *un hombre *vuelto/*andado/*reído/*sonreído/*paseado* 'a come/walked/laughed/smiled/walked man'. Also, the participles of these verbs cannot be used in the so-called 'absolutive' construction of (i), while unaccusative verbs can do so, at least in Spanish, as in (ii) (the examples of (i) don't improve when modifiers are added, a factor that can sometimes play a role) (in (i), the verbs must be understood in their intransitive, not transitive, use):

(i) *Spanish*
*Una vez vuelto/andado/reído/sonreído/paseado Juan, ...
'With Juan come/walked/laughed/smiled/walked...'

(ii) *Spanish*
a. Una vez salido el sol, nos entraremos a la mar
'With the sun come out, we will go into the sea'
b. Una vez partido el autobús, no hay nada que podamos hacer para detenerlo
'With the bus left, there is nothing we can do to stop it' (examples from Campos 1999)

The issue of unaccusativity vs. unergativity is widely discussed in the literature. See Levin and Rappaport Hovav (1986, 1995) for classical references on English, Cetnarowska (2002) for a recent discussion on the validity of these tests, and Campos (1999) and Mendikoetxea (1999) for a summary of the issues as they relate to Spanish.

A different account is called for. Suppose that personal datives in Spanish are introduced either by a high or by a low applicative head. Personal datives in English are always introduced by a low applicative head. Low applicative heads, in either language, impose restrictions on the object. Low applicative heads can appear, in principle, in structures with verbs whose silent indefinite object will undergo noun incorporation, as in (127),[53] but, of course, independently-attested constraints can operate on those structures. When the silent indefinite noun incorporates into the verb, no additional derivational affixes are possible on the verb, given Myers's generalization, so the further incorporation of $\text{APPL}_3$ is blocked. The derivation in which the order of operations is reversed is blocked for the same reasons. In Spanish, personal datives can also be introduced by a high applicative head. Thus, we must also rule out an alternative structure in which a high applicative morpheme, which attaches to the VP as a whole, introduces a personal dative. Either order of incorporation[54] will run into a problem with Myers's generalization, so these derivations are ruled out too.[55]

The advantage of this proposal is not only that it stands a better chance of explaining the incompatibility of silent indefinite objects with personal datives, it also puts together these facts under independently-attested (grammatical) generalizations, thus making its properties much less mysterious.

## 4 Conclusion

In this paper I have discussed some of the benefits that ensue from an approach to the grammar-pragmatics interface that is much more empirically grounded than those pursued by many philosophers of language and pragmatists working on pragmatic free enrichment. Working within these assumptions, I reached the conclusion that in two of the cases that are typically used to argue for pragmatic free enrichment, we have good reasons to suppose that grammatical processes, rather than pragmatic free enrichment, are involved. I argued that the treatment of adjectival fragments that best accounts for the generalizations is one in which the grammar generates a full, predicative construction, parts of which later undergo pragmatically-controlled deletion. The kind of relationship that this account establishes between the adjectival fragment and the full, predicative construction seems to be the one that is called for in order to account for the restrictions and possibilities that we found to operate on adjectival fragments cross-linguistically. I also argued that a grammatical, noun-incorporation approach that represents incorporated nouns syntactically and then subjects them to an incorporation process with the verb is the best explanation for the behavior of silent indefinite objects. In the case of silent indefinite objects, the analysis proposed required a subsidiary analysis of personal datives, which in turn required extensive argumentation, but this is just because the topic of (personal) datives is widely covered in the linguistics literature.

[53] Potentially, even in those languages which, like West Greenlandic, have intransitivizing morphology on the verb.

[54] If lowering operations are allowed by the grammar, since the applicative head would have to lower in order to incorporate into the verb.

[55] This predicts that, everything else being equal, matters should be different in languages with overt applicative heads that introduce personal datives, whether high or low, for in those languages the incorporation of the head is not a zero-derivation process, and hence it could be followed by incorporation of the noun. In these languages, silent indefinite objects should be possible together with personal datives. Unfortunately, I haven't tested this interesting prediction.

Importantly, then, neither adjectival fragments nor silent indefinite objects can tell us much about how pragmatic free enrichment works, since they seem to be the result of the application of other (grammatical) processes.

To what other phenomena should we turn next? I anticipate that this approach has much to teach us about the properties of a number of phenomena that have interested philosophers of language and pragmatists for a long time, and which are sometimes referred to with the labels 'unarticulated constituent' or 'implicit argument': quantifier domain restriction (for some thoughts in this respect, see Martí 2003, Etxeberria 2005 and Etxeberria and Giannakidou 2007), the standard of comparison of certain adjectives, the interpretation of the implicit location of meteorological and other verbs (as in *It's raining*), other types of sentence fragments, the causal and temporal interpretations of *and*-conjunction, and others. And we *do* need to revisit these phenomena, for only after looking at them the way I have suggested here will be able to know whether we need to appeal to pragmatic free enrichment or not.

Even if the particular analyses I proposed turned out to be wrong, I think it is undeniable that the strongly empirical approach I have advocated has much to offer, even to our understanding of questions that seem only philosophical in nature. It is in this respect that I regard the paper as mostly methodological.

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