

The Meaningful Bounds of Incorporation

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Abstract

Noun-incorporation structures (e.g. Mithun, 1984, Baker, 1988) have been investigated in detail by semanticists in recent years. Much of this work has centered around a notion of “semantic incorporation” (van Geenhoven, 1998), the semantic correlate of incorporation structures. A theory of semantic incorporation is necessary to account for a consistent constellation of semantic effects associated with noun-incorporation, including indefiniteness, lack of specificity, lack of scoping interactions with other logical operators, etc. In this paper I argue that this same constellation of effects is found in some (morphologically) unincorporated structures, and

- (2) a. *Enan qaa-t qErir-ninet*
 3sg.Erg reindeer.Abs.pl seek-3sg.s/3.pl.o
 b. *Etlon qaa-rer-g'e*
 3sg.Abs reindeer-seek-3sg.s
 'He is looking for reindeer.'
 (Chuckchi, Spencer 1995)

Much work has been done on this type of construction in both the descriptive and theoretically-oriented literature. The work of, for instance, Mithun (1984), Sadock (1980, 1986) and Baker (1988, 1996) provide a sampling of the detail of formal knowledge of such constructions. While this literature for some time focused on the question of whether incorporation is a lexical or a syntactic process, in the semantics literature this particular question has been replaced by proposals regarding the semantic correlates of the formal structures (however they arise), under the rubric of *semantic incorporation*, a term due to van Geenhoven (1998). Various ideas along these lines were previously developed in the work of de Hoop (1992), which highlighted the semantic interest of 'weak' NPs and their formal correlates in grammar.

A primary, and controversial, assumption of this exploratory paper is that the phenomenon of noun incorporation is in fact a unified phenomenon, at least as far as its basic semantic characteristics are concerned. It is very well-known that incorporation structures vary widely from language to language. Mithun (1984, 1986) follows Sapir and limits discussion to compounding types of structures, setting aside the denominal 'affixal' structures found in Greenlandic, a decision Sadock (1986) takes issue with. Languages may also vary widely on which grammatical relations may be incorporated, though theme/patient-type direct objects seem always candidates, and incorporation is nearly always limited to just one noun.² Languages vary widely in what kinds of verbs or nouns may participate in incorporation, and whether there is the possibility of 'doubling', as exemplified in (3), or 'stranding', as exemplified in (4):

- (3) a. *Gäi-[ga'] yu' kätu, lao matai.*
 agr.have-pet I cat but agr.die
 'I had a pet cat, but it died.'
 b. *Hayi gäi-[patgun] hao?*
 who? WH[nom].agr.have-child you
 'Whose child are you (lit. Who has a child, namely, you)?'
 (Chamorro, Chung & Ladusaw 2004)
- (4) a. *Ka-rakv thikv ka-nuhs-a'*
 3N-white that pre-house-Suf
 'That house is white'
 b. *Ka-nuhs-rakv thikv*
 3N-house-white that

² Chukchi is an exception, allowing two incorporated stems so long as one is argumental and the other an adjunct (Lambert, 1999).

Closure applying at the level of the Verb Phrase, as proposed by Diesing (1992). Dayal (2003) makes use of Grimshaw's operation of 'theme suppression', and Bittner (2001) provides an account in terms of the verb providing the local context of interpretation of an incorporated argument. Farkas & de Swart (2003) make use of a level of 'thematic variables' associated with argument positions that are distinct from discourse referents. Landman (2004) presents a treatment of semantic incorporation relating to verbs of possession, which operates on argument structures and thematic roles. Finally, my own programmatic work (Carlson 2003a, 2003b, 2004) suggests that the parameters of interpretation themselves differ at the level relevant to the interpretation of incorporated nominals, and that the existential binding is an artifact of how one defines the homomorphism between interpretations using different parameters. This represents an interesting spectrum of theories. I make no attempt here to compare and contrast them, never mind declare one the best. I think that is for the future. At present we have a variety of secure well-understood semantic accounts of the stable properties to work from.

In discussing 'incorporation' in these terms, there is one further factor that we need to be cognizant of. In Massam (2001) it is argued that there is a category of structures called *pseudo-incorporation*, based primarily on the fact that in Niuean one can appear to incorporate full NPs, not just N⁰ (Dayal 2003 in recognition of the possibility of complex incorporated forms in Hindi uses this terminology). If in fact there is a systematic structural distinction between incorporation and pseudo-incorporation, then there is a decent chance that much of the literature draws conclusions based upon a conflation of the proposed two types of structures. An informal survey⁵ shows that a good many languages discussed as 'incorporating' languages display various types of complexity in what may be included within the verb, including adjectives, relative clauses, disjoined and conjoined structures, and others. It does appear that Niuean nonetheless exhibits many of the stable properties of incorporation. Of some interest is that fact that while relative clauses in general cannot be included in the construction, they may be if they are what Massam calls "subjunctive" relatives (she cites examples glossed as "(...) because he didn't have anything *to open it with*" or "They just looked for a place *to live*" (Massam 2001: 176, emphasis added).

As interesting as this issue remains, I need to put it aside as the proposal has not yet received the kind of scrutiny it deserves (Ball 2005 being an exception), and we cannot yet draw any firm conclusions regarding whether there should be any interpretive differences, or even formal differences between incorporated and pseudo-incorporated forms.

3. What is 'incorporated'?

When one arrives at a semantic definition of incorporation, as the 'semantic incorporation' literature can be seen as implicitly doing, it offers the opportunity for there to be some disconnect or "mismatch" between formal definitions of incorporation and the semantic definitions. So the question I wish to begin addressing in this section is whether

⁵ I thank Douglas Ball for examining grammars of a wide variety of incorporating languages and compiling an extensive report, from which I draw these conclusions.

there is reason to think that the bounds of both formal incorporation and the meanings expressed coincide.

In morphologically complex, polysynthetic languages, incorporation is widely attested. In incorporation is widely

their detailed semantic evaluation appears to show that all the stable properties are fulfilled in this construction.

So there seems to be fairly good reason to think that there are structures which express the same kinds of meanings as those expressed by incorporated structures, but which are not true incorporated structures at all (i.e. they appear much more like ‘stripping’ structures). So one question we might pose at this point is whether there are other types of syntactic or morphological structures which would appear to fulfill the stable semantic properties of incorporation. And, of course, yes, there are some candidates that have emerged. One candidate is quite well-known, namely existential interpretations of bare plurals as one finds in English⁶. These explicitly fall under van Geenhoven’s original definition of ‘semantic incorporation’ but they are manifestly unincorporated structures. We are going to set these aside for the moment, since not everyone’s analysis of bare plurals includes them as semantically incorporated.

Heyd (2003) and Heyd & Matthieu (2005) have extensively and explicitly argued that the case of French *de+N*, exemplified in (7), is an instance of ‘semantic incorporation’, displaying all the relevant stable properties.

- (7) *Je n’ai pas mangé de pommes*
‘I have not eaten any apples.’

These are manifestly not structurally incorporated forms. Their definition of ‘semantic incorporation’ is slightly different from others, in that they argue that the [*de N*] structures in French introduce an existential quantifier as a part of their meaning.

Another case is that of Maori *he* (Polinsky 1992, Chung & Ladusaw, 2004). This is by appearances an indefinite article which contrasts with another indefinite article in Maori (*te:tahi*[sg]/*e:tahi*[pl]), exemplified in (8):

- (8) *Homai he wai mo-ku*
Give.pass a water T-of me
‘Give me some water.’

(Chung and Ladusaw 2004: 22)

Chung & Ladusaw present data showing that all the stable semantic properties are expressed by this construction. Their analysis is exactly the same as given for the Chamorro incorporated nominals examined in the later chapters of the same book. That is, despite lack of formal incorporation, they analyze Maori *he* as an instance of semantic incorporation.

The final instance we’ll discuss is the case of English bare singulars and certain definites (Carlson & Sussman, in press). English bare singulars have received sporadic treatment, some exceptions being Heycock & Zamparelli (2003), and Stvan (1998). The class of ‘bare singulars’ of current interest are those which combine with verbs and prepositions, as found in (9a,b) below. While the limited distribution of such bare singulars in English limits their semantic investigation somewhat, it is fairly clear that a semantic incorporation analysis works better than any competitors.

⁶ As usual, the term “bare plural” also includes mass terms

“...incorporation provides the lexicalized expression of a *typical activity*.” (Axelrod 1990).

“Some entity, quality, or activity is recognized sufficiently often to be considered *nameworthy*...” (Mithun 1984).

“Noun incorporation in Sm’algyax occurs when a *habitual activity* toward an object is expressed.” (Mulder 1994).

"[the incorporated form] refers to habitual, permanent, chronic, specialized, *characteristic or unintentional activities* or states, or localized events... ." (de Reuse 1994).

Such quotes can be reproduced virtually at will, though the language may vary (e.g. talk of ‘unitary concepts’, ‘genericity’, etc. all point in the same direction).

It is quite clear, too, that this type of restriction can appear beyond the formal bounds of incorporation. Borthen (2003) notes that Norwegian bare singulars (which she divides into various classes) have limited distribution:

- (11) a. *Jeg kan lese bok, jeg.*
 I can read book, I
 ‘As for me, I can read a book.’
 b. *Han anbefalte rullestol.*
 He recommended wheelchair

Further, it is quite clear that English bare singulars (of the appropriate classes) and the definites of the type discussed above also show considerable restriction and enrichment. For instance, being *in bed* is not simply a locative state, but also (we believe truth-conditionally) requires that the person be using the bed as its design is intended, i.e., for sleeping or resting and not as a trampoline. Or being *in prison* is not accorded visitors who are at that location, but only those incarcerated (i.e., experiencing what a prison is for). This extends to appropriate readings of definites. Going to *the hospital* may be read as requiring treatment, not just traveling to a certain destination, or *looking at the calendar* means also gathering information a calendar can give, not simply directing one's gaze in a certain direction. Restriction is most evident when one examines near-synonyms. Compare the following:

- (14) a. Mike went to prison/*penitentiary
b. The ship is at sea/*ocean/*lake...

The same lexical restriction appears on the definite article construction as well.

On the other hand, the restriction might not rest on the noun and the kind of activity expressed but may instead be directed, as suggested by Bybee above, at the verb. In Chamorro, for instance, there appears to be virtually no restriction on the noun incorporated, but there are very heavy restrictions on the nature of the verb:

“(...) incorporation is productive. Although the verbs of possession are the only two Chamorro verbs to serve as hosts of incorporation, the construction is fully productive as far as the incorporated object is concerned. The N of the incorporated object can be any common noun at all, including relational nouns as well as a wide range of other concrete and abstract nouns, whether indigenous or borrowed words.” (Chung & Ladusaw 2004: 89-90).

And oftentimes the nature of the restrictions are not at all clear, so easily statable. Here is a note from the introduction to the Oneida dictionary:

“However, it is often more challenging to take a verb root, incorporate a noun root (...) and come up with a word that speakers recognize. Often the structure of the word is correct but the meaning - the expected meaning that results from simply combining the meanings of all the parts - is not the actual meaning. Sometimes the word sounds OK, but no one who speaks Oneida would actually use it. Even the pronunciation can be unexpected. And quite often the word just doesn't exist.” (Michelson & Doxtator 2002).

There are, logically speaking, a number of different types of restrictions that we might be dealing with, and possibly more than one might be at work at the same time in any given language. The restriction might be a grammatical, purely lexical ('arbitrary') restriction. Or the restriction can be grammatical in that certain grammatical relations can be expressed (typically, direct objects) and not others. For the French *de+N* constructions, the restriction is primarily that the N must be functioning as a direct object, which is typical of many incorporation structures. The restriction might be that semantic enrichment of some sort is required, or the slightly less strenuous restriction that some 'familiar' cultural significance be accorded the action whether there is semantic

enrichment of not. It could also well be that there are purely pragmatic restrictions that occur, that are usage-based (“no one (...) would actually use it”) that are currently difficult to articulate and identify, though these would hardly be confined to this one sector of the grammar.

If one elevates ‘restriction’ to the level of an identifying feature of semantically incorporated structures, this presents a particular challenge to articulate exactly what kinds of restrictions count and why. However, including a notion of restrictedness does have the effect of further winnowing out the candidates for semantic incorporation. The case of the English bare plurals (and quite possibly Brazilian Portuguese bare singulars) are then excluded because there are no restrictions on their appearance or combination. While this might appear intuitively satisfying, it is a much more difficult challenge than to go back and outline the precise role that ‘restriction’ plays in the semantics of the constructions that would count as incorporated, semantically.

5. Conclusion

Work within the past decade or so has turned towards a detailed examination of the semantics of incorporated nominals as arguments in verbs. A usable consensus has been reached on what kinds of semantic properties one would expect to find, and theories have been developed which provide some very detailed accounts of why those properties, rather than others, would emerge. With the development of such theories, it becomes possible to offer semantic, rather than formal definitions of what counts as ‘incorporated’. When one does this, there is strong present reason to think that the types of structures which can be used to express such meanings run well beyond the bounds of incorporation structures as defined by syntax and morphology. This enables the question of where, if anywhere, the limits stand as to what sorts of structures can express such meanings. In this paper, we have not provided an answer, but have explored the possibility that a further criterion for setting the outer limits of what counts as semantically incorporated should be considered. It is quite clear that ‘restrictiveness’ is a property regularly associated with clear instances of incorporation, as well as (plausibly) the instances of those structures beyond the formal limits. The sources of restrictiveness appear varied, but whether such varied sources can play a similar function, such as indicating a degree of grammaticization of the structure, is an open question. Whether restriction plays the meaningful role suggested here remains for future work.

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