

1985

Noun Incorporation vs. Cliticization

A M. Di Sciullo
UQAM

E S. Williams
UMASS

Follow this and additional works at: <https://scholarworks.umass.edu/nels>



Part of the [Linguistics Commons](#)

Recommended Citation

Di Sciullo, A M. and Williams, E S. (1985) "Noun Incorporation vs. Cliticization," *North East Linguistics Society*. Vol. 16 : Iss. 1 , Article 10.

Available at: <https://scholarworks.umass.edu/nels/vol16/iss1/10>

This Article is brought to you for free and open access by the Graduate Linguistics Students Association (GLSA) at ScholarWorks@UMass Amherst. It has been accepted for inclusion in North East Linguistics Society by an authorized editor of ScholarWorks@UMass Amherst. For more information, please contact scholarworks@library.umass.edu.

Noun Incorporation vs. Cliticization

A M Di Sciullo UQAM

E S Williams UMASS

When one encounters a phonological unit of some kind in a language, one wants to know, is it a syntactically formed unit, or a morphologically formed unit. A good theory of morphology, aided by some notion of the syntactic atomicity of morphologically derived units, should be a reasonable guide for most cases.

The question of atomicity can be put this way: how can a part of a word (affix, say) interact with the syntactic (extramorphological) environment— what are the permissible ways? The most interesting answer is, only indirectly; it will first interact with the other parts of the word to determine the properties of that word, and that word then will interact with syntax (it will have a syntactic distribution).

Suppose that the theory of morphology has as a consequence that there are only two ways that a part of a word can determine the properties of that word:

1. It may affect the feature composition of the derived form
2. It may affect the argument structure of the derived form

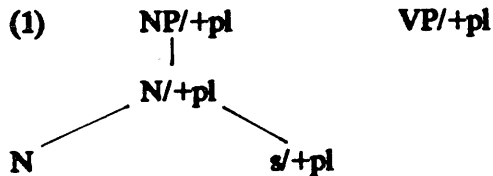
Suppose further that the feature composition and argument structure of words are highly restricted encapsulations of information:

- Features:
1. unordered and unstructured specifications of (generalized) category membership (like +N, +pl, etc.)
 2. a part of a word can affect the feature composition of the word only if it is the head of the word.

Argument Structures:

An unordered specification of the arguments of a word, with realization predicates for each argument, and control relations holding between arguments.

So, for example, in the following, the plural morpheme *-s* determines the plurality of the N it is a part of, and that plural N is the head of a plural NP which is the subject of a plural VP etc., so we get an (indirect) interaction between *-s* and a plural VP:



And in the following, self- prefixation results in the binding of one argument by another in the derived form:

- (2) self + hate -->self-hate
 (R A B) (R A/i B/i)

A theory of this kind is detailed in Di Sciullo and Williams (1985). With a theory of this kind, and with some notion of the syntactic opacity of words derived in morphology, the word becomes an information "bottleneck" in that there is only limited ways in which information on parts of words can get outside of these words, namely by affecting the features or arguments of the whole word itself. Clearly, many constructions involving phonological units cannot be analyzed as morphological words if these strictures are enforced.

This might not be worth going into, except that much recent work has opened up again the question of the relation of syntax to morphology, and in doing so has proposed analyses inconsistent with the theory outlined here. First, there are syntactic analyses that by the above criteria should be morphological; a good example is Baker's (1983, 1985) analysis of noun incorporation (NI). Second, there are morphological analyses of constructions which must be syntactic by the above criteria; for example, Borer's (1983) analysis of clitics. We will look at these two sets of constructions in the light of the theory just outlined.

1. Noun Incorporation.

The phenomenon of noun incorporation is illustrated in the following:

- (3) a. iʔi ye-k-hreks ne yeokar
 I tl-1s-push prefix prefix-bark
 'I push the bark'
 b. iʔi ye-k-kar-hreks-s
 I tl-1s-bark-push
 'I bark push'
 (Baker (1983), p. 6)

Here, the direct object of "push" in (a) has been incorporated into the verb in (b). A syntactic theory might derive (b) from (a) by movement in syntax. Such a view of NI is offered by Baker (1983, 1985).

On the other hand, perhaps the incorporated noun is added to the verb as an act of word-formation, governed by the principles of morphology. Such an analysis, call it the compounding or morphological analysis, posits no syntactic relation between (a) and (b). Among the possibilities of compounding consistent with the principles laid out above is the possibility that the first element of the incorporated structure might affect the argument structure of the second element:

(4) kar + hreks → "kar-hreks"
 (A, th) (A, th)
 |
 kar

The change in the argument structure is the following: "kar" is added as a qualifier on the theme argument of "hreks". It does not satisfy the argument structure (though in Mithun's type I-III languages, this is what happens) rather it sets conditions on the reference of the theta role (in our view it is theta roles themselves which refer, not the overt NPs they are linked to).

Baker (1983, 1985) has given four arguments that NI is syntactic, not morphological, or compounding. The arguments are:

1. When a noun incorporates, remnants of its syntactic NP position may remain behind.

(5) a. ka-nuhs-raku thiku
 3n-house-white this
 (Baker (1983) p. 13; from Postal p. 285)

2. A copy may be left behind:

(6) ka-nuhs-raku thiku ka-nuhs-a
 3n-house-white this pre-house-suf

3. Only objects and subjects of intransitives can be incorporated (this characterization is "syntactic")
4. Incorporated Nouns may introduce discourse referents; thus are syntactically or referentially transparent.

We will consider these four arguments in turn.

First, the possibility of leaving an NP remnant behind is independent of incorporation:

- (7) a. Kanekwarunyu wa'-k-akyatawi'tsher-uni
it.dotted.DIST PAST-I-dress-make
'I dress-made a polka-dotted one'
- b. Kanekwarunyu wa'katkahtho.
it.dotted.DIST PAST.I.see
'I saw a polka-dotted one'
(Mohawk; ex. (106-7) from Mithun (1984))

In the (a) example it looks like incorporation has left behind a remnant of the NP it has been extracted from; however, the (b) example shows that the existence of such remnant NPs is independent of incorporation.

Baker considers the existence of "copies" of the incorporated noun to be an argument for syntactic movement, in analogy with clitic doubling structures (and the assumption that they are syntactic). However, not only do copies exist, but inexact copies exist:

- (8) ...sha'te:ku niku:ti rabahbot wahu-tsy-ahni:nu ki...
...eight of.them bullhead he-fish-bought...
'[he] bought eight bullheads'
(Mohawk, ex. 105 from Mithun)

It strains our formal sensibilities to call "fish" a copy of "bullhead". Rather, it appears that what is inside and what is outside the V are more or less independent of each other (except the that "novelty constraint" of Wasow (1972) might apply), and the exact copy is just a special case.

As far as what can be incorporated, there are a couple of things to remark on. Baker claims that only objects of transitives and subjects of certain intransitives can incorporate. If one assumes that these intransitives are "ergative" in that their SS subject is a DS object, then incorporation targets a DS natural class: direct objects. This "syntactic" characterization implies that the rule is syntactic, not lexical.

Granting the generalization, it is far from clear that the rule is syntactic. After all, direct objects are arguments of the verb, and there is no reason to think that the targets of NI could not be the specification of these arguments in the argument structure of verbs. A convincing demonstration of the syntactic nature of the rule would be a "direct object" which was not an argument of the verb, as one finds in the English raising

passives. No such case is given; the closest is the possessor raising cases, for which the point is moot (consider English "I hit Bill's head" "I hit Bill in the head").

Baker (1985) explicitly argues against a characterization of the target of NI being the theta role "theme". First, he gives Gruber's (1965) definition of theme:

- (9) The THEME of a given predicate is the argument which moves or is located in that predication
(Baker (1985), quoting Gruber (1965))

and then cites the following example as one in which the target of NI cannot be theme:

- (10) Hakare' nen' ia'-e'-hent-ara'ne' ka'-hent-owane'
after now tl-3F-field-reached pre-field-large
Then after awhile she reached a grassy clearing that
was large' (Baker ex. (45) quoted from Hewitt (1903))

since fields do not move when one reaches them. However, it is not at all clear that the notion "theme" is to be so narrowly understood; for example, in the following, if we follow the conventional analysis, "field" must be theme:

- (11) The field is reachable.

Furthermore, Baker himself gives a principle relating thematic structure to syntactic structure which would seem to undermine his argument in any case:

- (12) "Identical thematic relationships between items are represented by identical structural relationships between those items at the level of D-structure"
(Baker (1985) ch1. p 57)

Given that "field" in the example cited is incorporated, and thus must be a DS object in Baker's theory, and given that it is not a theme, then (12) implies that some other theta role, say goal, can be realized in object position, and therefore cannot be realized in any other way, a highly unlikely conclusion.

In any case, we repeat, we see no need to construe theme in the narrow way that Baker does, and in fact believe that the cognitive content

of "theme" is very slight. This is not to say that there will be no empirical difference between Baker's proposal and ours— for example, our proposal, but not his, implies that the incorporated noun must be an argument of the incorporating verb.

Finally, we note that in general, incorporation is not limited to direct objects or themes. Baker himself is forced to adopt a preposition insertion rule (for Nieuwenhuis) to preserve his generalization that it is direct objects alone that incorporate; Mithun (p. 875 ff) discusses a number of languages in which instruments and locations incorporate.

Baker's last argument is that the ability of incorporated nouns to introduce discourse referents argues for the syntactic nature of NI, the assumption being that it is only syntactic positions, and not parts of words, that can perform this function. The argument itself has one troubling feature: clearly, Baker is adopting some idea of the opacity of words in making this argument, since he is assuming that parts of words are referentially opaque; however, it is not clear why this opacity does not prohibit noun incorporation itself.

In any case, Mithun (1984) explicitly addresses this argument:

"it is the pronominal system ...that differs from English, not the word formation process..." (Mithun, p 871).

And she gives the following to illustrate:

- (13) K-atenun-hah-kwe. Ah tis yehetkv.
 I-watch-HAB-PAST Ah how she.ugly
 I was baby-sitting. Boy is she ugly.
 (Mohawk, ex. (112) from Mithun)

In this example, "watch", which does not have a noun incorporated, but nevertheless serves to introduce a referent, which the subsequent pronoun "she" picks up. Naturally, introduction of discourse referents is possible with NI as well, this example simply shows that it is independent of NI.

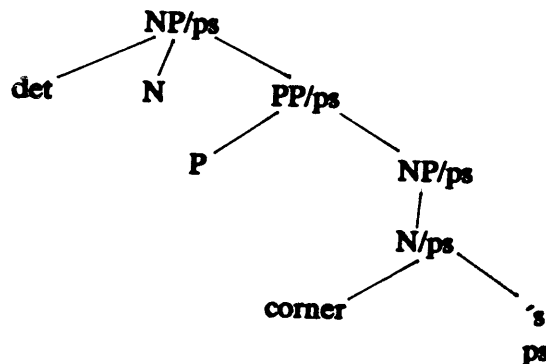
In sum, it appears that all of the phenomena Baker cites as evidence of the syntactic nature of NI is independent of NI itself—the ability to have remnants of NPs without heads, to have null NPs, and to introduce discourse referents. This independence is exactly what one would expect under the morphological analysis of NI, since the kind of dependence imputed in each case would be impossible, due to the "bottleneck" imposed by the hypothesis of the syntactic opacity of morphological objects.

2. Clitics.

When we turn to clitic systems, we find quite a different story: in general, a clitic is not morphologically added to the word with which it forms a phonological unit. The theory of morphology outlined earlier determines this.

Consider for example the English possessive clitic:

(14) The man on the corner's hat



This structure will determine the wrong distribution of possessive NPs—they do not, for example, occur as the object of prepositions. Similarly, consider the phonological unit "I'll" in "I'll leave". What feature or combination of features could be assigned so as to determine the distribution of "I'll". It occurs INSTEAD OF the sequence subject-modal. Clearly, its distribution can be easily computed only from a Surface Structure containing both a Subject ("I") and a modal ("will"), so this unit is syntactically formed.

When we turn to the clitics of the world, we find in case after case that the clitic is added to a unit whose feature composition or whose argument structure the clitic is completely irrelevant to; this is certainly true of the clitics that move to Wagemaker's position:

(15) girbadja=ndu mamiyi gambira
 kangaroo=2.nom catch.past yesterday
 'You caught a kangaroo yesterday'
 (Ngiyambaa, in Klavens (1984))

(16) Nya-nyi, ka- ma-ngku ngarrka-lku.
 see-nonpast, pres-1subj-2obj man-after
 I see you as a man now.
 (Warlbiri, in Hale (1983))

- (17) Hindi=ko=siya nakita ngayon
 Not=I=him have seen today
 (Tagalog, in Kaisse (1982))

- (18) Ja=cu=mu=ga dat
 I=will=him=it give
 (Serbo-Croatian, in Kaisse (1982))

In none of these cases is the clitic added to the item of which it is an argument; thus, we cannot consider the clitic morphologically added to its phonological host by compounding by argument satisfaction. Hence, the clitic must be syntactically added to its host.

Romance presents a less obvious case. In simple cases, it appears that the clitic adds to the verb that it is an argument of:

- (19) Je le vois
 "I it see"

But when there is an auxiliary, the clitic attaches to it, rather than to the verb that it is an argument of:

- (20) Je l'ai vu
 "I it have seen"

However, we cannot immediately conclude that the the clitic is syntactically added, because there is very likely a "reanalysis" of the auxiliary verb and the main verb into a complex verb (see Rizzi (1981)), and then the clitic could attach to the compound verb, which presumably would have an argument structure derived from the main verb:

- (21) Je l' [ai vu]
 V V(A, th)
 V(A, th)
-

However, there are cases for which this analysis will not work. In Italian, the clitic may appear before or after the verb, depending on whether the verb is infinite or finite:

- (22) a. gli voglio scrivere
 b. voglio scrivere gli

"I want to write to him"

This alone is reason enough to question the affixal analysis of these clitics, since they are not determinately prefixal or suffixal. But the analysis becomes impossible when we consider infinitive auxiliaries:

(23) **Voglio averlo visto**
"I want to have-it seen"

Here the clitic is attached to the auxiliary, and since it intervenes between the auxiliary and the main verb, it cannot be understood as attached to a complex verb formed of the auxiliary and the main verb. Here then is a clear case of an affix attached to an item that it is not an argument of, and so we must conclude that clitics are syntactically attached to the things that they form a phonological unit with.

So Romance clitics, unlike the cases of NI considered earlier, are not morphological—they govern syntactic positions. It is then no surprise that they differ in another way from cases of NI. When a clitic is moved, a double of the clitic may be left behind, but the double must be in a different (case) position from the position the clitic is moved from (called "Kayne's generalization"):

(24) **lo vimos *(a) Juan**
"We see John"

Here the clitic is accusative, so the accusative case position in syntax must be vacant, and the direct object obligatorily appears with the "a" case marker. In the case of noun incorporation, there was no restriction imposed on the syntactic direct object by the fact that incorporation had taken place.

3. Conclusion.

Actually, what we have shown is that NI CAN be morphological, and that cliticization MUST be syntactic, in that we have shown that NI is compatible with the theory of morphology and atomicity thesis, and cliticization is not. We would of course like a stronger position in the case of NI: NI MUST be morphological. We might achieve this by making NI the "unmarked" analysis of a construction. When the morphological analysis fails (as in the case of "I'll" above) then a syntactic union is posited; however, when nothing refutes the morphological analysis, as in the case of NI, then the analysis remains morphological. We believe that this is consistent with what is known about acquisition of language.

Bibliography

- Baker, M. (1983) "Noun Incorporation in Iroquoian" ms.**
- Baker, M. (1985) Incorporation: A Theory of Grammatical Function Changing,**
MIT dissertation
- Borer, H. (1983) Parametric Syntax: Case Studies in Semitic and Romance Languages. Foris Publications Dordrecht**
- Di Sciullo, A M and E S Williams (1985) Three Kinds of Word, ms.**
- Gruber, J. (1965) Studies in Lexical Relations. MIT dissertation.**
- Hale, K. (1983) "Warlbiri and the Grammar of Non-configurational Languages"**
NLLT 3, 1-19.
- Hewitt, G. (1903) "Iroquoian Cosmology" 21st Annual Report of the Bureau of**
American Ethology.
- Kaisse, E. (1982) "Sentential Clitics and Wagnagel's Law" in First West Coast Conference on Formal Linguistics, 1-14.**
- Klavens, J. (1984) "The Independence of Syntax and Phonology in Cliticization" Language 61, 95-120.**
- Mithun, Marianne (1984) "The Evolution of Noun Incorporation" Lg. 60.4, 847-894.**
- Rizzi, L. (1981) Issues in Italian Syntax. Foris, Dordrecht.**
- Wasow, T. (1972) Anaphoric Relations in English, MIT dissertation.**