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S. Rosen (1989) proposes a "lexical" account of noun incorporation (NI), concluding that there are two types: compounding NI, which affects the argument structure of the verb, and classifier NI, which does not.[1] With regard to this criterion, Southern Tiwa (ST) is of the latter type. Many classifier NI languages allow "stranded" modifiers, i.e. non-null NPs without an overt Head, with the incorporated noun being understood as the Head. ST is one of these languages; see example (a). Rosen makes the important observation that these same languages also exhibit null Head NPs apart from NI, as in ST example (b). She argues, therefore, that NI and null Head NPs are independent phenomena, and that apparent cases of incorporation of the Head of an NP, as in (a), are the intersection of these phenomena such that a verb with an incorporated noun stem co-occurs with a null Head nominal as argument.[2]

(a) Wisi bi-seuan-mu-ban.   "I saw two men."
   two 1s:B-man-see-past
(b) Wisi bi-mu-ban.   "I saw (the) two (of them)."
   two 1s:B-see-past

Rosen describes her account of NI as "lexical" as opposed to "syntactic". The opposition of the two descriptive terms is appropriate if her account is contrasted with that of Baker (1988), for Baker ascribes all incorporation to movement of the Head of a nominal to the verb. But relational grammar (Frantz 1985a)[3] and autolexical syntax (Sadock 1985) accounts of NI in ST, both being non-process descriptions, are not so easily branded "syntactic". In fact, both of these accounts emphasize that ST incorporation, like many other grammatical phenomena, requires constraints that refer to both morphology and syntax. In both accounts, verb stem composition is independent of syntax, but there exist constraints dealing with what syntactic arcs an incorporated noun stem may or must Head (Frantz 1985a, Allen et al 1990), or with the mapping between morphological representation and syntactic representation (Sadock 1985).

Constraints on nominal Heads

Nevertheless, though Rosen only briefly addresses incorporation constraints specific to ST, given her null-Head approach some facts which previous accounts relate directly to NI can be accounted for without such reference; i.e., at least some of the constraints on NI can be stated as constraints on non-null Heads. E.g., rather than requiring incorporation of Heads of inanimate subjects and objects (Allen, Gardiner, and Frantz 1984, pp. 293 and 299) (henceforth AGF) to account for the facts of sentences such as (c)-(f), we can simply require that lexical Heads of subject and object nominals be animate; call this the Lexical Head Animacy Constraint. The lexicon, under such an account, will provide verb stems, with and without incorporated inanimate noun stems, that select inanimate NPs as subject or object. (d) and (f) are bad, then, not because they violate an incorporation constraint, but because they violate the Lexical Head Animacy Constraint.

(c) Seuanide i-mukhin-tuwi-ban.   "The man bought a hat."
    man   A:B-hat-buy-past
(d) * Seuanide i-tuwi-ban mukhin.
    man   A:B-buy-past hat
(e) I-k'uru-k'euwe-m.   "The dipper is old."
    B-dipper-old-pres
(f) * K'uru i-k'euwe-m.
    dipper B-old-pres

This approach is worth pursuing with regard to other incorporation constraints that have been proposed for ST.

More constraints on NP Heads

AGF show that ST requires incorporation of the lexical[4] Head of a direct object argument if the subject is third person. See (g) and (h). Here we can take the approach we followed with regard to obligatory incorporation of inanimates: a direct object nominal must not have a lexical Head if the subject of the verb is third person. Under this approach, (h) is bad, not because it has an unincorporated Head of the direct object nominal, but because the direct object has a lexical Head.

(g) Musan ibi-khwian-mu-ban.   "The cats saw the dogs."
    cats B:B-dog-see-past
(h) * Musan ibi-mu-ban khwianin.
    cats B:B-see-past dogs

AGF also show that ST requires incorporation of the lexical Head of Absolutive nominals in the presence of certain other nominals: nominals which have put the Absolutive en chomage under AGF's analysis; or indirect objects under a new analysis proposed by Carol Rosen (to appear). Examples (i) and (j) illustrate the necessity of incorporation of the Head of the (initial) Absolutive of a ditransitive verb; (k) and (l) illustrate the necessity of incorporation of the Head of the (initial) Absolutive of a verb of motion; and (m) and (n) illustrate the necessity of incorporation of the Head of the (initial) Absolutive in the presence of a nominal understood as the possessor of that Head. Since incorporation is obligatory in all these cases, under S. Rosen's approach we can again state that lexical Heads of the Absolutives in these cases are ungrammatical.

(i) Ka-'u'u-wia-ban.   "I gave you the baby."
    1:2s\A-baby-give-past
(j) * Ka-wia-ban 'u'ude.
    1:2s\A-give-past baby
(k) Ka-seuan-wan-ban.   "The man came to you."
    2s\A-man-come-past
(l) * Ka-wan-ban seuanide.
    2s\A-come-past man
(m) In-musa-teurawe-we.   "My cat is running."
    1s\A-cat-run-pres
(n) * In-teurawe-we musade.

There are difficulties with these non-lexical Head requirements. First of all, since proper nouns never incorporate, they can serve as nominals in the cases where other nouns are ruled out; this is the main reason why the constraint does not simply require a null Head (as Rosen proposed). But this means that if noun incorporation is independent of syntax, nothing rules out a verb with an incorporated nominal that links to a proper noun as object. We take this problem up below, in conjunction with discussion of "optional incorporation".

Second, most current work within transformational theories of syntax, especially the government-binding approach, allow syntactic rules to "look" at the makeup of NPs only in terms of features which "percolate" to the NP node. Constraints such as those in the last two paragraphs on NPs with lexical Heads call for Heads of NPs to carry a feature specification for whether they are lexical or not, in addition to the more ordinary features such as person, number, gender, etc.

All of the constraints considered so far involve the necessity of incorporation, and do not violate the complete independence of verb stem composition from syntactic constraints on the composition of nominals (other than argument structure requirements and selectional restrictions of the verb, and the proper noun problem which we take up below). To the extent that metatheory values this independence, then this approach is an improvement over the rules which are found in other accounts of incorporation.

Other constraints on incorporation

However, other facts about incorporation still require what Frantz (1985a,b) calls morpho-syntactic constraints, because they refer to both morphology and to syntax. We now consider these.

The animate subject constraint

According to AGF, ST does not allow incorporation of the Head of a subject if it is animate; compare (o) and (p). Given Rosen's approach, we need to block incorporation of an animate noun stem in the lexicon if it is to be "linked semantically" (Rosen p.296) to the subject argument. Such a constraint is almost identical to the "syntactic" rule of AGF or the constraint that would be needed within Sadock's autolexical theory, and is not much different from the constraint which would be needed under Baker's movement analysis, especially if the "movement" is metaphorical; so no clear advantage for this "lexical" approach is found here.

(o) Musan i-k'euwe-m.   "The cats are old."
    cats B-old-pres
(p) * I-musa-k'euwe-m.
     B-cat-old-pres

Optional incorporation

Next we consider cases where incorporation is "optional". One is seen when (q) is compared with (a).

(q) Wisi seuan-nin bi-mu-ban.   "I saw two men."
    two   man-pl 1s:B-ee past

(r) * Ti-t'ayn-mu-ban hliawrade.   ("I person-saw the woman".)
　1s:A-person-see-past lady

Since there is in such cases no syntactic constraint against lexical Heads of the nominals in question, independence of verb stem composition from syntactic constraints predicts that a verb may have an incorporated noun stem which is linked to an argument with a lexical Head. In fact, there are languages which permit this "doubling", and thus support Rosen's approach. However, ST does not; sentences like (r) are always rejected by ST speakers. Rosen suggests that this may be due to a selectional restriction on the argument to which the incorporated noun stem is linked; a restriction which in effect rules out a lexical Head for that argument.[5]

AGF also show that incorporation of the Head of the initial subject of a passive is optional as well:

(s) Khwianide φ-edeure-ban (yede) kanide-ba.
　　　dog　　A-kick-past　that　horse-instr
　"The dog was kicked by (that) horse."
(t) Khwianide φ-kan-edeure-ban (yede-ba).
　　　dog　　A-horse-kick-past　that-instr
　"The dog was kicked by (that) horse."

Observe that for a monostratal account to rule out this doubling in the same way that Rosen proposes to rule out doubling in sentences such as (r), the verb must carry a "selectional restriction" requiring a non-lexical Head for what is a semantic argument. So far as I can determine, such a selectional restriction should be impossible in the government-binding framework.

As mentioned above, since proper nouns cannot be ruled out as objects in the cases where lexical Heads are banned (see (u)), doubling is expected with them as well. Yet as (v) shows, such sentences are bad. So whatever approach is taken to rule out doubling in the "optional incorporation" cases is also needed even in most of the cases where the constraints on non-null Heads seemed to work so well.

(u) Seuanide φ-mu-ban Marie.   "The man saw Marie".
　　man　A:A-see-past Marie
(v) * Seuanide φ-t'ayn-mu-ban　Marie.　("The man person-saw Marie".)
　　man　A:A-person-see-past Marie

I submit that here again we are dealing with a morpho-syntactic constraint that is not much different from that which a relational grammar or autolexical approach would require. The obligatory absence of a lexical Head of a nominal just in case the verb stem contains a noun stem that is understood as the Head of that nominal is the quintessential situation that calls for a rule of noun incorporation, whether it be a process rule or a well-formedness constraint.

Two kinds of null Heads

When one considers the null Head phenomenon in a domain larger than the clause, it becomes apparent that there are two kinds:

　1. those licensed by discourse context, such that the Head is null because the content of an overt Head would be redundant; example

(b) would occur in such a context.

2. those licensed by presence of the noun stem as part of the verb complex.

In addition to the different distributional requirements of these two types of null Heads, there is another fact which supports such a distinction: null NPs licensed by discourse context can be replaced by an emphatic pronoun (compare (w) and (x)), but null NPs licensed by incorporation never are (see (y)).[6] This shows that null NPs associated with NI are not simply null; i.e. this is another fact which argues against the complete independence of null NP distribution and NI.[7]

(w) Ti-mu-ban.   "I saw him."
   1s:A-see-past
(x) Ti-mu-ban ãwa.   "I saw *him*."
(y) Ti-seuan-mu-ban (*ãwa).   "I saw the man."

This fact also complicates the constraints above which ruled out doubling by forbidding lexical Heads of certain nominals, because those same nominals may not have an overt pronoun as Head either. The constraint then seems to require the form of a disjunction: it must require that the Head be null or a proper noun.

Conclusion

While Rosen's proposal is apparently appropriate for NI in some languages, and even permits independent lexical and syntactic constraints to account for a subset of what were previously described as morphosyntactic incorporation constraints in ST, it does not provide the full story; constraints on incorporation are still needed which reference both the morphology and the syntax. So Southern Tiwa[8] exhibits a third type of noun incorporation.

Notes

[1]The term 'classifier' is appropriate only for languages, such as those of the Iroquoian family, in which the incorporated noun can classify a co-occuring nominal with an overt Head. But as we shall see, Southern Tiwa does not allow such "doubling".

[2]Abbreviations used in glosses include: 1 = first person, 2 = second person, 3 = third person; s = singular, p = plural; A, B, and C are morphological classes determined by combinations of two numbers (s and p) and three grammatical gender categories (i, ii, and iii) as follows: A = is or iis; B = ip or iiis; C = iip or iiip.

[3]Rosen was apparently unaware of this reference.

[4]Where 'lexical' excludes proper nouns and pronouns; these are never incorporated, and they can serve as free nominals in cases where (other) nouns would have to be incorporated. This latter fact is taken up later.

[5]Here again a feature [-lexical Head] would need to be available to percolate.

[6]I am grateful to Donna Gardiner for checking examples such as (y) for me with ST speakers.

[7]Within a theory of incorporation such as Baker's (1988), these two would differ in that type 2 would be represented as a trace; type 1 could be *pro*, though *pro* normally is an entire NP, not just the Head of an NP.

[8]And probably Eskimo as well; see Sadock 1980.

REFERENCES

Allen, B.J., D. Gardiner, and D. Frantz. 1984. Noun Incorporation In Southern Tiwa. IJAL 50.3.

Allen, B.J., D. Frantz, D. Gardiner, and D. Perlmutter. 1990. Verb Agreement, Possessor Ascension, and Multistratal Representation in Southern Tiwa. B. Joseph and P. Postal (eds.), Studies in Relational Grammar 3. University of Chicago Press.

Baker, M. 1988. Noun Incorporation: A Theory of Grammatical Function Changing. University of Chicago Press.

Frantz, D. 1985a. Syntactic Constraints on Noun Incorporation in Southern Tiwa. BLS 11.

Frantz, D. 1985b. Morphology in Relational Grammar. CLS 21, Part 1.107-121.

Rosen, C. To appear. Rethinking Southern Tiwa: The geometry of a triple agreement language. Submitted to Language.

Rosen, S. 1989. Two Types of Noun Incorporation. Language 65.294-317.

Sadock, J. 1980. Noun Incorporation in Greenlandic: a Case of Syntactic Word Formation. Language 56.300-319.

Sadock, J. 1985. Autolexical Syntax. NLLT 3.