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Some pleasures and pitfalls of Autolexical Syntax

Jerrold M. Sadock

While it is true that some linguistic theories are formalized to the extent that they might actually differ empirically, for the most part they are either too vague, or cover such distinct realms of data, that they are strictly speaking incomparable. The choice among linguistic theories is, then, largely a matter of taste, though emotional attachment, training, and propaganda often incline us to think otherwise.

One of the things that I find attractive—that suits my tastes in grammar—about the autonomous view that brings us together today is its realism. At least in its present form, the constructs of Autolexical Syntax tend to be rather more real, rather more available to intuition, than the abstractions in certain other traditions of grammar, and much more so than in some. Others would disagree that this is an advantage, and since this is a *Geschmackssache*, it is their privilege to do so. It is the very abstractness, the very remoteness from anything we can lay our hands or ears on, that attracts other grammarians to other models.

Levels of syntactic organization, semantic organization, and morphological organization are, to be sure, somewhat abstract. The phonic signal does not contain their hierarchies and categories any more than it does traces and co-indices, but I submit that it is considerably less taxing on the imagination to think about what referring expression is the semantic argument of the meaning of a verb, than it is to wonder about the grammatical function of an NP in the antepenultimate stratum in Relational Grammar, and it is much easier to have a pretheoretical idea of whether a certain NP is the surface-syntactic subject of a certain verb, than to ruminate upon the question of whether something one does not hear is PRO, NP-trace, WH-trace, pro, or deleted in PF. *Chacun à son goût.*

The greater reality of the bits and pieces of Autolexical descriptions shows up in the principles that are supposed to (but probably never actually do) keep the theory from being a theory of everything. There is something like a Theta Criterion and something like a Case Filter in the Autolexical model, but the

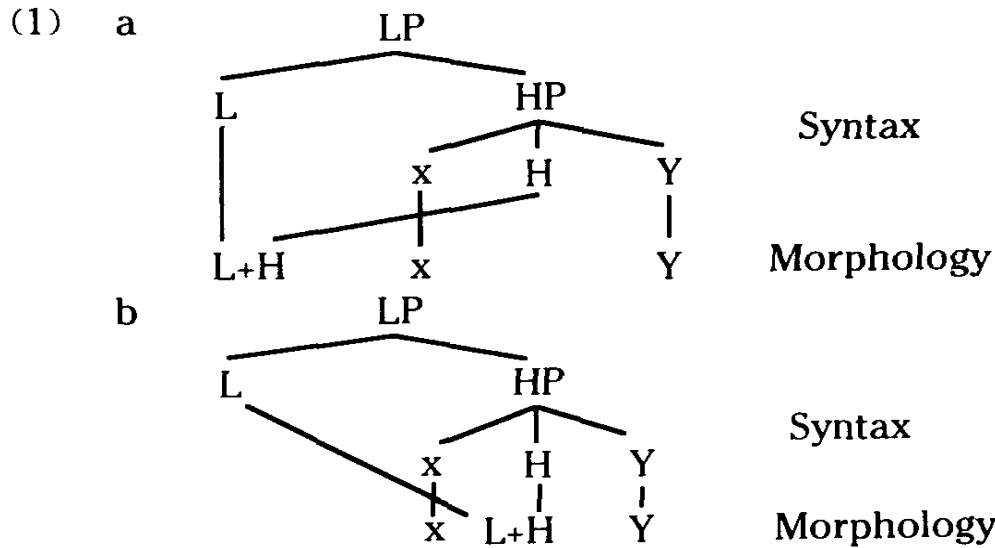
principle that, in different modules, covers much of the same conceptual ground as do the Theta Criterion and Case Filter in Government and Binding is so basic, and so mundane, that it scarcely deserves a name, let alone a scientificizing one sporting a Greek letter.

The idea is simply that all the pieces of a representation must fit together according to the well-formedness rules of that level of representation. In other words, each level has its own tactics, to borrow a felicitous term from ancestral grammatical thinking. Applied to the semantics, this principle demands that every argument expression be an argument of something, and that every functor that takes an argument have one. This much is merely part of the tactics of the level of semantic representation. Here we have a blunt, homespun version of the Theta Criterion, but without abstract theta roles. Applied to surface syntax, our nameless principle requires that noun phrases (and everything else, for that matter) have some role to play in the syntax of a sentence, and since these roles are, *inter alia*, subject, object, indirect object, object of preposition, and possessor of \bar{N} , we have a kind of ingenuous version of the Case Filter, but without abstract Case.

Of course not all of the principles of the various “theories” of Government and Binding are automatic consequences of the structure of the Autolexical model (or should be), and there are principles here that have no basis in the architecture of the system, and must be stipulated. But even in such cases, I see a kind of plausibility in the Autolexical account that is lacking in competing ways of thinking about language. Autolexical descriptions are the sorts of things that one could imagine trying to explain to one’s mother-in-law. If anything, these stipulations gain appeal as they become less abstract, at least as far as my preferences go. I see it as progress when a relatively arcane idea can be reduced to the conjunction of things we could imagine knowing without a sophisticated grammatical formalism in which to couch them.

I’d like to illustrate this by describing a principle, to be found in my book (Sadock 1991), that I consider a real improvement over the way things were done in Sadock (1985). The problem has to do with specifying whether an incorporating form will show up in the position of the incorporator (i.e., the lexeme that needs to combine morphologically) or the incorporee (the morpheme that could stand as an independent element of syntax without attaching morphologically to something else). In other words, when should

we expect to encounter the situation diagrammed in (1a), and when should we expect the one in (1b)?



In Sadock (1985) I attempted to approach this sort of problem by the relatively abstruse method of counting the number of crossing association lines between the two representations. The idea was that a diagram with fewer crossing lines was to be preferred to one with more. I now think that this effort, which met with only limited success anyway, was misguided. Lapointe (1987) has argued forcefully for a system in which association lines never cross, making the morpho-syntactic interface obey a fundamental constraint of the allied discipline of Autosegmental Phonology (Goldsmith 1976). If Lapointe is right, then we must abandon the attempt to account for ordering in such terms. As it turns out, the facts concerning the direction of incorporation seem to yield easily to a straightforward and intuitively sensible principle that makes no appeal to line crossing.

Both kinds of cases clearly occur. All examples of noun incorporation that I know of are either compatible with (1), or demand to be analyzed in that way. In West Greenlandic, for example, the normal order of a stranded modifier with respect to an incorporating verb matches the normal order of an instrumental-case object with respect to an intransitive verb:¹

- (2) *Angisuu-nik qimme-qar-poq.*
 big-INST/P dog-have-INDIC/3S
 'He has big dogs.'

- (3) *Meeqqa-nik asannip-poq.*
 child-INST/P love-INDIC/3S
 'He loves children.'

Since the order of elements in a West Greenlandic NP is N+MOD, this clearly shows that the incorporated N-stem is attracted to the verb (as in the mirror image of [1a]), rather than the verbal affix being attracted to the N-stem.

As a case of the opposite kind, consider the incorporating determiners of Icelandic, as analyzed in Sadock (1991). If, as I suggest, the morphologically bound determiner in (4) occupies the same position in syntax that a free demonstrative occupies in (5), then we have the situation diagrammed in (1b).

- (4) *rauði hestur-inn sem týndast*
 red horse-DET which got.lost
 'the red horse which got lost'
- (5) *sá rauði hestur sem týndast*
 DEM red horse which got.lost
 'the red horse which got lost'

The survey in Chapter 5 of Sadock (1991) contains a near minimal pair of phenomena with respect to the direction of incorporation. Both Hungarian (see, for example, Tompa 1972) and Crow (Graczyk 1989) contain incorporating postpositions, but those of Hungarian descend to the head of their NP complements (if the derivational metaphor may be excused), while those of Crow rise to combine with the head of the phrase that governs them, i.e., the verb phrase.

Let us consider Hungarian first. The language has both independent postpositions and those that are obligatorily joined to the head noun of their object phrase.

- (6) *egy/a fehér házról*
 'from a/the white house'
- (7) *egy/a fehér ház mellett*
 'beside a/the white house'

If the head noun of the object is preceded by an adjective and followed by a relative clause, the incorporating adposition still seeks the head noun, and winds up attached to it.

- (8) *a szép kép-ről amit tegnap láttunk*
 the beautiful painting-rol which yesterday saw-we
 'from the beautiful painting that we saw yesterday'

The Crow case is somewhat more complicated. This language has several clitic postpositions that attach as suffixes to the last word of their object NPs:

- (9) *Mary-sh ashtáahile is-kawúua-n awáachi-k.*
 Mary-DEF teepee its-inside-LOC sit-DECL
 'Mary is sitting inside the teepee.'
- (10) *Bill bin-náask-etaa díili-k.*
 Bill water-bank-along walk-DECL
 'Bill is walking along the shore.'

One of these, *(ku)-ss-(ee)*, expressing the goal relation, is different from the rest in that it is usually incorporated into the verb. When it is not cliticized to a relational noun like *awúua* 'inside,' or *píishi* 'behind,' it still must cliticize to something, namely the empty noun-stem *ku-* 'it' (example [11]). When it cannot be incorporated (e.g., when there is no host, cf. example [12]), it has the desinence *-ee/-aa*. But when it is suffixed to a relational noun, both the postposition and the relational noun are incorporated into the verb (example [13]).

- (11) *húuleesh Jerry-sh Chichúche ku-ss-dée-k.*
 yesterday Jerry-DEF Hardin it-GOAL-go-DECL
 'Jerry went to Hardin yesterday.'
- (12) *Shóoss-da-lee? Chichúche kuseé.*
 where-GOAL-go-INTERR Hardin GOAL
 'Where are you going? To Hardin.'
- (13) *Charlie-sh aasúua píishi-ss-xalusshi-k.*
 Charlie-DEF his.house behind-GOAL-run-DECL
 'Charlie ran to the back of his house.'

There is both phonological and morphological evidence that the postposition and the relational noun are incorporated into the verb. First, the phonological facts: Crow words contain only one stress, and there is only one stress in *píishi-ss-xalusshi-k* in (13). Note particularly that in the semantically and syntactically parallel sequence *is-kawúua-n awáachi-k* in (9), there are two word stresses.

Thus the division of the string into words that is given in (13) is quite secure.

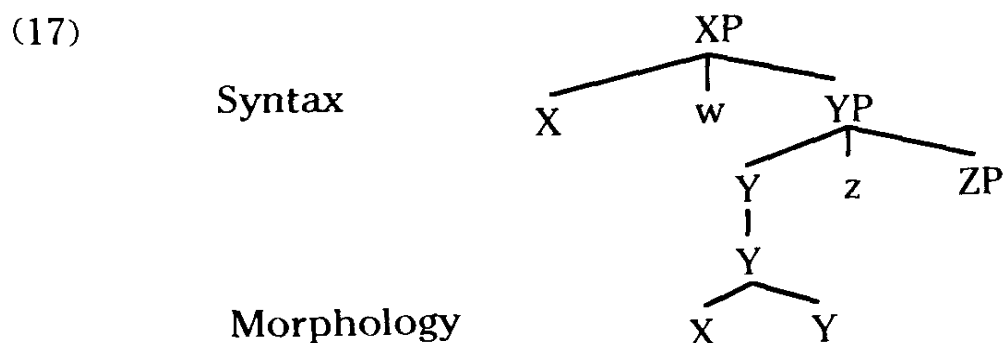
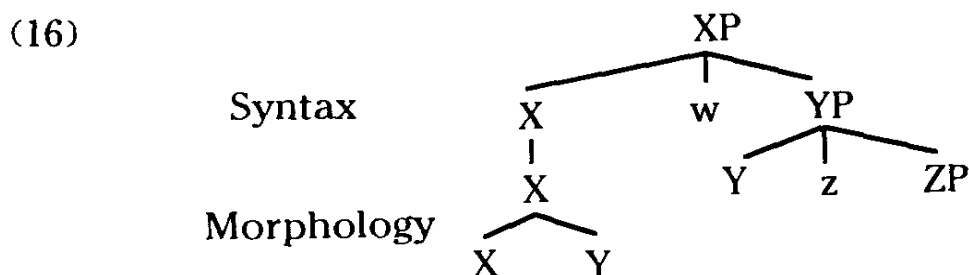
Next, the morphological evidence: In Crow, first and second person arguments are expressed obligatorily as verbal prefixes, e.g., *diiwaalichí* 'I hit you', *biiláalichí* 'you hit me', *biilichí* '(he/she) hit me', etc. According to Graczyk's research, the incorporating relational noun plus postposition must occur inside these verbal prefixes, next to the stem:

- (14) *Mary-sh* *awaasúua* *bii-píishi-ss-dee-hche-k*
 Mary-DEF house 1S-behind-GOAL-go-cause-DECL
 'Mary sent me to the back of the house.'
- (15) **Mary-sh* *awaasúua* *píishi-ssee* *bii-lée-hche-k*
 Mary-DEF house behind-GOAL 1S-go-cause-DECL

Here one sees clearly that the complex morphological expression occurs where the verb does, rather than where the postposition does. One might think that the difference has something to do with what item is responsible for the incorporation, but this notion is falsified by the pair of cases at hand, since in both languages the incorporating power is a lexical feature of the adpositions, some of which do not participate in incorporation at all. We may also compare the Eskimo situation, where the lexeme that must be specifically marked as triggering the incorporation is clearly the suffixal verb, with Gta?,² Sora, and other South Munda languages, where most nouns have special incorporating forms, but those that don't can't incorporate (Ramamurti 1931). In either case, the morphological construct consisting of noun and verb is found in the position of the verb.

The actual difference resides in the relationship between the morphological and syntactic rules that the Autolexical element participates in. In both Crow and Hungarian we are dealing with an element that combines with NPs in the syntax to form adpositional phrases. But the morphological combinatorics of the postpositions differ greatly between the two languages. In Hungarian they participate in a morphological rule that combines a noun and a postposition to form a noun, whereas in Crow the adpositions combine with verb stems to form verbs stems. What we can now observe is that the complex noun of Hungarian occurs where the noun would, and the complex verb of Crow occurs where the verb would. In general, then, the complex morphological item occurs where its morphological category occurs in syntax.

The reason that all noun incorporation involves raising, as Baker (1988) would have it, is simply that noun incorporation, among other things, is the morphological combination of a nominal and verbal form to form a verb, which, by the principle just adumbrated, will occur in the position of the syntactic verb.



The situation can be understood by examining the diagrams in (16) and (17), which resemble those argued for by Lapointe (1987) in that non-terminal nodes of the morphological tree are associated with the syntactic tree. The diagram in (16) corresponds to the Crow situation, where $X = V$, and $Y = P$; The diagram in (17) analyzes the Hungarian facts, where $X = P$, and $Y = N$.

Though it is quite possible, and certainly desirable, for the principle governing the direction of incorporation to follow from the architecture of the system, I do not see that it does, and so will state it as an observational law:

- (18) Direction of Incorporation
 The syntactic position of a complex morphological expression is the same as the syntactic position of its morphological head.

As far as I know, the rule of Direction of Incorporation always works. In fact, it seems to be generalizable to the semantics/syntax interface as well, though there are some problems. A typical raising

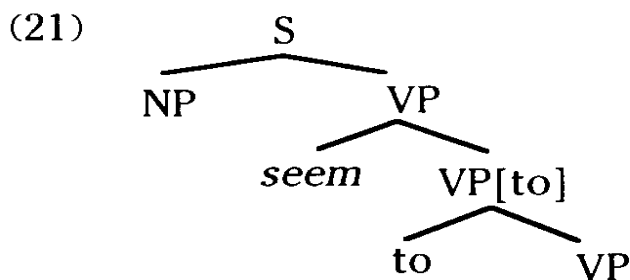
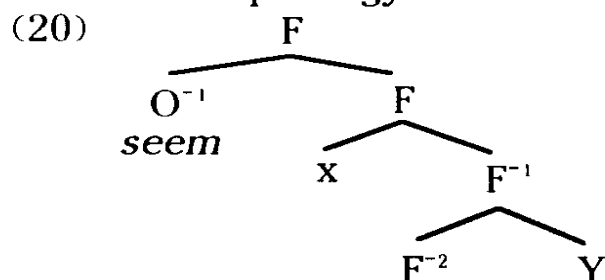
verb, like English *seem*, presumably occurs as a propositional operator in semantic structure, but in the syntax it is a verb that takes an infinitive complement. The lexical entry in (19) will allow it to occur in semantic structures like (20) and syntactic structures like (21).³

(19) *seem*:

syntax = [_{VP} VP[to]] (SF5)

semantics = O^{-1}

morphology = V^{-0}



To see that something like what we found at the syntax/morphology boundary is at work here too, something must be said about the standard identification of categories between these two modules. I think it is reasonable to assume that there is a universal tendency for semantic predicates to be realized as VPs, and for semantic operators to be realized as adverbials, and vice versa. Perhaps the notation could be improved so as to include this cross-identification of categories in these two modules automatically (as it does between syntax and morphology), but I will not attempt that here. Rather, I will once again state these correlations as extrinsic interface constraints:

(22) $ADV \rightleftharpoons O^{-1}$

(23) $VP \rightleftharpoons F^{-1}$

Now, if we suppose that (18) generalizes to the semantics/syntax interface, we can see why *seem* is attracted to VP, rather than VP being attracted to *seem*, giving rise to something like **(it) seems to love John Mary*.⁴ The reason is that the syntactic combinatorics of *seem* give rise to VPs, which are cross-identified with predicates (F^{-1}), and therefore occur in their slot.

This kind of account rests crucially on the separation of grammatical information into encapsulated representational schemes that may or may not produce coincident structures.

Therein lies the power of this mode of grammatical description, and also a Pandora's box.

The crucial assumption of automodular grammar, and the one that sets it apart from other current theories, is that the components are essentially independent mini-grammars, related to one another by an overarching interface system. How many components we need to recognize, what the responsibilities of each of them are, and what formal power each of them should be endowed with are all questions concerned with the proper implementation of this basic idea. These are difficult, but absolutely central, questions in the development of an automodular approach to grammar, since incorrect choices will inevitably lead to cumbersome, and counterintuitive accounts of real-language data, even if the basic idea of autonomous representations is right.

Let me consider the question of the formal nature of each of the components first. As I have said before, Autolexical Syntax (despite its name) is not a theory of syntax, nor is it a theory of morphology, nor of semantics. One could, in principle, marry the basic idea concerning the relationship between modules with whatever theory of the individual components one wanted. Of course certain kinds of theories of the individual modules seem more congenial to the spirit of the Autolexical enterprise than others.

For example, it would be distinctly incongruous to assume something like a Government and Binding syntactic component in the present theory. For one thing, the fundamentally derivational style of Government and Binding seems out of keeping with the static, non-derivational philosophy of the present orientation. For another, just the syntactic part of Government and Binding is at least partially a theory of some things that seem semantic and some things that seem morphological. Finally, the Projection Principle, which requires all representations to be essentially similar, goes straight against the grain of Autolexical Syntax, where it is the very possibility of significantly discrepant representations in various dimensions that is the fount of explanation. For these reasons I have adopted context-free phrase structure grammar as the most suitable available theory of the syntactic component.

In fact, it seems perfectly adequate (though not necessarily appropriate) as a theory of each of the big-three components, syntax, semantics, and morphology. If it should turn out to be true that each subcomponent is a phrase structure grammar, this is an intriguing fact indeed. Lieberman (1984) argues that phrase

structure grammars are merely the non-motor equivalents of automatized motor control mechanisms. Thus the neuronal networks that control complex motor routines are “pre-adapted” to phrase structure grammar.

Returning now to the central questions that concern us here, let us consider the problem of distributing the burden among components. Which phenomena are to be handled entirely within a single component, and which are to be dealt with at a particular interface? Is there a general method of deciding which kind of solution is appropriate, or does it have to be decided on a case-by-case basis?

Let us see how such questions apply to a particularly central grammatical construction, the passive. A great many theories of grammar have been founded on their treatment of passives, but not this one. I have never mentioned passives (except in passing) in my work of the last few years. Here something has to be done to make the autonomous model competitive in the empirical marketplace, but I don’t know what.

Several theories of passives suggest themselves. We could adopt a lexical analysis, which in the present theory would treat the passive morpheme as being a formative in the morphology only. The lexeme would have a syntactic and semantic effect on the verb-form it creates (presumably functions of the syntactic and semantic values of the stems to which it attaches), but would not be represented as an independent element in either of these components. Alternatively, the passive could be handled by a metarule in the syntax, creating new syntactic rules from old ones, though this is possibly too “derivational” an analysis to fit comfortably in the present framework. As a third alternative, the passive auxiliary could be treated as a formative in the syntax, with a semantic and morphological effect but no independent representation in the semantics, and no interesting properties in the morphology. For a language with a purely morphological passive, we might even adopt a hermaphrodite solution that places the passive morphology in the position of an auxiliary verb in the syntax, but gives it the status of an affix in the morphology, making it a classical incorporating element.

Yet another possibility that springs to mind is that the core notion of passive cannot be found within any of the components that have been employed in Autolexical work so far, but must be located within a component where syntacto/semantic roles, like agent and theme, or subject and object, are primitives. This

possibility leads me to the last topic that I wish to discuss, namely the number and nature of components.

There are two directions in which we can err—in the direction of having too many components, and in the direction of having too few. It is hard for me to imagine that any of the components now in vogue is superfluous, and I will proceed on the assumption that we need at least the components we presently have. Furthermore, it is obvious that the complete grammar must somehow include phonological description, but it is not at all clear how that is to be done. The only serious attempt I know of to fill in this glaring gap is the work of Shobhana Chelliah (1995).

Besides the rather traditional triumvirate of generative components, there is actually a fourth source of structured representations, namely the lexicon. Even conceived of as a static list, the lexicon must contain complex items—semantically irregular morphological items, phrasal idioms, complex semantic categories like pronouns, and the like. Thus the lexicon can provide constituent structure that may not appear anywhere else in the grammar. Donka Farkas and I have employed this level of organization in our paper on the complex distribution of preverbs in Hungarian (Farkas – Sadock 1989).

But are there other dimensions of representation, distinct from the traditional three and the lexicon? Is it possible that the components we now have are too coarse, including in some cases information that should actually be separated into autonomous modules?

Consider the sort of semantic structures I have been assuming, courtesy of Russell, Carnap, and Quine. These contain two sorts of information, mashed together; function-argument information, and quantifier-variable information. While the putting of these two kinds of information into a single structure is absolutely traditional in modern logic, is there anything of a grammatical nature that compels us to do it that way? Perhaps there should really be two components here, one responsible for function-argument structure and the other for variable binding. In my own recent work, I have often found it convenient to suppress quantifiers so as to isolate function-argument structure. The down side is that if we separate the two kinds of information, something must be done to reconstruct the notion of scope that is so handily represented in the traditional semantic representations. We will need to say that somehow a quantifier can have scope over either predicate in *Nancy wants to marry a Norwegian*, just as either

quantifier may have scope over the other in *Everybody loves somebody*.

Besides the possibility that there is too much in traditional logical structures, it is also imaginable (some might say obvious) that there is too little. One of the many things Autolexical Syntax in its current state does not do is make any discriminations on the basis of semantic content. As far as the present theory is concerned, intransitive agentive predicates like *sing*, “unaccusatives” like *roll*, and “undatives” (if I may call them that) like *be hungry*, are indistinguishable in semantic structure, all falling under the rather coarse heading of one-place predicates. Now it might be the case, as has frequently been suggested, that classes based not upon semantic configuration, but upon semantic content need to find a place in linguistic description. The question is, then, where to insert such information in an Autolexical model. Schiller (1989) has suggested that semantic structures could be enriched by features relating to content. Alternatively, abstract predicates of doing, undergoing, experiencing, and so on, might be added in the fashion of Generative Semantics. As a third possibility, an autonomous level of thematic organization, as in the work of Lapointe (1988) and Faarlund (1995), might be the appropriate method of capturing generalizations that depend upon semantic content.

What about discourse functional information, viz. notions like topic, comment, focus, theme, and rheme, old information, new information, communicative dynamism, and so on? Do these belong in the semantics? Do they belong in the syntax? Both? Neither?

Here I'd like to go out on a limb and suggest that it would be profitable to view such notions as defining a parallel, autonomous level of representation, an idea that has been taken up in recent work by Li (1989) and Smessaert (1995). After all, as students of these matters have pointed out (e.g., Firbas 1966), such notions find their expression in natural language in word order (as in Slavic), in terms of morphology, as in Japanese and Korean, in terms of stress (as in English), and even (if Atlas – Levinson 1981 are right) in the semantic representations of cleft and pseudo-cleft sentences. One of the strongest reasons for setting up an autonomous level of organization is, after all, the fact that the information it encodes can surface in the forms that are the responsibility of various components. Thus Eilfort (1989) has argued that illocutionary force be handled by an autonomous component, since here again the formal means by which languages encode speech-act

distinctions make use of the resources of several different components.

Another argument for an autonomous module is that discontinuities of structure at a single level can be exchanged for discrepancies between continuous constituents at two levels, as is done in the *locus classicus* of automodular phenomena, noun incorporation. Now topicalization produces discontinuities, so it might well be a perfect case for reanalysis in automodular terms.

What would an automodular grammar of the topic-comment component of a language like Czech, said to have topic before comments, look like? In and of itself, it would not be particularly exciting, perhaps only the rules in (24-26), or only a subset of them.

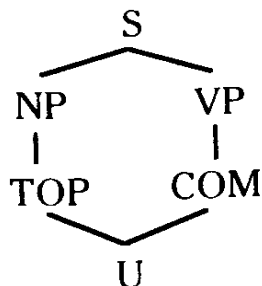
(24) Utterance (U) = Topic (TOP) Comment (COM)

(25) TOP = TOP COM

(26) COM = TOP COM

Now since the simple structures that are the province of a component like this must be associated with both syntactic and semantic representation, it looks possible to explain some of the well-known interactions between discourse-functional notions and syntax or semantics. For example, the fact that subjects tend to be default topics is just what we would expect in a language where subjects are the default initial constituents of sentences. The normal case would correspond to a bimodular situation in which there is no conflict whatsoever between the autonomous representations:

(27)



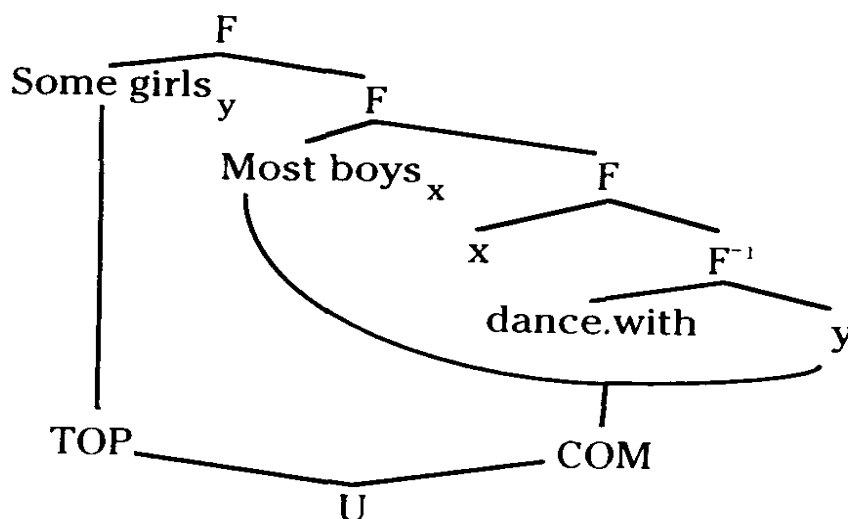
Perhaps more interestingly, some of the effects of topic/comment structure on preferred or required semantic scope begin to make sense in a theory with an autonomous discourse-functional component. As has often been observed (see Partee 1970, for example), there is a tendency to interpret quantifiers as having scope from higher to lower mapped onto linear order from

left to right. If a non-standard syntactic order occurs, this association is virtually categorical. In a familiar pair like (28) and (29), there is a clear tendency to interpret the first NP as having scope over the other, so to interpret *some girls* as non-specific in (28), and specific in (29). But in (30) it is almost impossible to interpret *some girls* as non-specific.

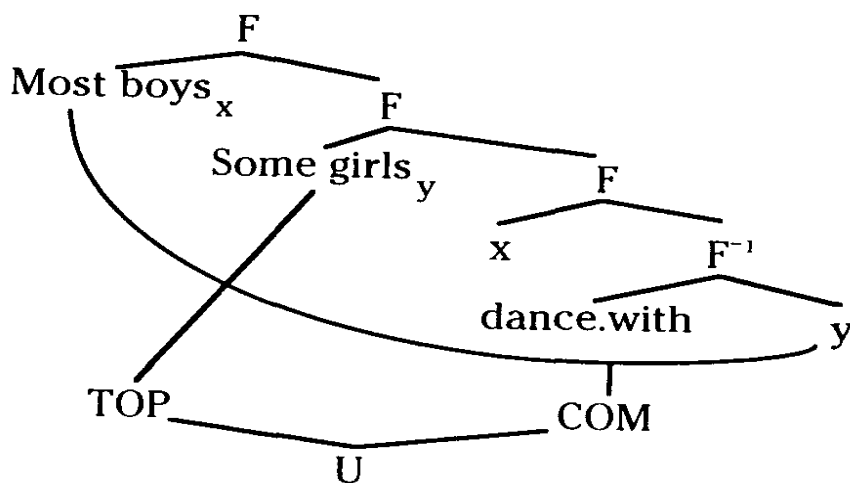
- (28) *Most boys danced with some girls.*
- (29) *Some girls were danced with by most boys.*
- (30) *Some girls, most boys danced with.*

If we examine a rough-and-ready semantic/discourse-functional mapping for these examples, these facts begin to make sense.

(31)



(32)



If (29) or (30) has the specific reading of *some girls* then the dual diagram is as in (31). On the other scopal interpretation it is

as in (32), a structure that involves a violation of one of the default mapping principles, namely Linearity. Structure (30) would also violate Linearity at the discourse/syntax interface on the disfavored scopal interpretation.

There is much more to be done in the way of giving this kind of an analysis real teeth, but it does seem to hold a great deal of promise.

But where will it all stop? How many components can we postulate before we end up with a separate component for each phenomenon, much as Relational Grammar went through a baroque phase in which there was a separate grammatical relation for each phenomenon? I can't tell you, but I can suggest that the spirit of realism that I mentioned at the outset should serve as a guide. My conscience is fairly clear when it comes to suggesting a topic-comment plane of organization, because that strikes me as something I could convince my mother-in-law exists. I might have trouble sleeping, however, if it seemed necessary to set up a level of syntactic deep structure, or a structure in which superscripted co-indices were represented, or anything of that kind.

Before closing, I'd like to point out one practical feature of the model that we should be aware of: the formalism is so easy to implement that it becomes a burden. The Autolexical model, with its relatively simple individual components, makes it possible to get quite explicit about the syntax, semantics, and morphology of a particular expression. But the syntax of that expression is only part of the syntax of the language, and similarly for the other components. A respectable description of a single phenomenon in Autolexical terms should really be embedded in at least a fragmentary, integrated description of the entire language. In other theories that contain much more complex components, it might seem reasonable to assume some version of X-Bar syntax, c-command, or whatever, without actually saying what that version is. In the present theory it simply will not do to assume some version of English syntax, or some version of compositional semantics without saying what it is. While this might seem a chore, I have found that when one actually writes out at least the relevant rules in all components, a great deal, both about the language under scrutiny, and about the descriptive apparatus, is quickly learned.

Notes

1. The modifier or the argument may also appear after the verb, but with the same stylistic effect in both cases.
2. I am grateful to Norman Zide for information on Gta?
3. The notation here is that of Sadock (1991). It owes much to suggestions of Eric Schiller's: "F" indicates formula, "O" indicates operator, and a negative superscript indicates degree of unsaturation. Thus "F⁻¹" indicates a singly unsaturated proposition, i.e., a function from entity expressions to propositions.
4. This would be ungrammatical anyway, since the lexical entry for *seem* in (19) requires it to take an infinitive complement. However, the present framework, in contradistinction to others, has no prejudice against overlapping accounts of the same facts.

References

- Atlas, Jay David – Stephen Levinson
 1981 "It-clefts, informativeness, and logical form: Radical pragmatics (Revised Standard Version)", in: Peter Cole (ed.), *Radical pragmatics*. New York: Academic Press, 1-62.
- Baker, Mark C.
 1988 *Incorporation: A theory of grammatical function changing*. Chicago: University of Chicago Press.
- Chelliah, Shobhana
 1995 "An Autolexical account of voicing assimilation in Manipuri", in this volume.
- Eilfort, William H.
 1989 The illocutionary module. Paper presented at the Workshop on Autolexical Syntax, University of Chicago, April 16, 1989.
- Faarlund, Jan Terje
 1995 "Autostructural analysis of semantic roles", in this volume.
- Farkas, Donka F. – Jerrold M. Sadock
 1989 "Preverb climbing in Hungarian", *Language* 65: 318-338.
- Firbas, Jan
 1966 "On defining the theme in functional sentence analysis", in: Josef Vachek (ed.), *Travaux linguistiques de Prague 1: L'Ecole de Prague d'aujourd'hui*. University of Alabama: University of Alabama Press, 267-280.
- Goldsmith, John
 1976 "An overview of Autosegmental Phonology", *Linguistic Analysis* 2: 23-68.

- Graczyk, Randolph
 1989 Postpositional phrase incorporation in Crow. Paper presented at the Siouan Languages Conference, June 2-3, 1989, Morley, Alberta, Canada.
- Lapointe, Steven G.
 1987 "Some extensions of the Autolexical approach to structural mismatches", in Geoffrey J. Huck – Almerindo E. Ojeda (eds.), *Syntax and Semantics, Volume 20: Discontinuous constituency*. Orlando, FL: Academic Press, 152-184.
 1988 "Distinguishing types of morphosyntactic cooccurrences: Mismatch resolution, agreement, government", in Diane Brentari – Gary Larson – Lynn McLeod (eds.), *Proceedings of the 24th Annual Regional Meeting of the Chicago Linguistics Society, part 2: Parasession on Agreement in Grammatical Theory*. Chicago: Chicago Linguistic Society, 181-201.
- Li, Ligang
 1989 *Ba*-construction in Mandarin Chinese: An Autolexical approach. Paper presented at the Workshop on Autolexical Syntax, University of Chicago, April 16, 1989.
- Lieberman, Philip
 1984 *The biology and evolution of language*. Cambridge, MA: Harvard University Press.
- Partee, Barbara Hall
 1970 "Negation, conjunction, and quantifiers: Syntax vs. semantics", *Foundations of Language* 6: 153-165.
- Ramamurti, G.V.
 1931 *A manual of the So:ra: (or Savara) language*. Madras: Government Press.
- Sadock, Jerrold M.
 1985 "Autolexical syntax: A theory of noun incorporation and similar phenomena", *Natural Language and Linguistic Theory* 3: 379-440.
 1991 *Autolexical syntax: A theory of parallel grammatical representations*. Chicago: University of Chicago Press.
- Schiller, Eric
 1989 The case for Autolexical case. [Unpublished manuscript, University of Chicago]
- Smessaert, Hans
 1995 "Pronominal cliticization in West Flemish", in this volume.
- Tompa, Jozsef
 1972 *Kleine ungarische Grammatik*. Budapest: Akadémiai kiadó.