

Linking Constructions vs. Linking Rules: Evidence from French
Author(s): Jean-Pierre Koenig
Proceedings of the Nineteenth Annual Meeting of the Berkeley Linguistics Society: General Session and Parasession on Semantic Typology and Semantic Universals (1993), pp. 217-231

Please see “How to cite” in the online sidebar for full citation information.

Please contact BLS regarding any further use of this work. BLS retains copyright for both print and screen forms of the publication. BLS may be contacted via <http://linguistics.berkeley.edu/bls/>.

The Annual Proceedings of the Berkeley Linguistics Society is published online via [eLanguage](#), the Linguistic Society of America's digital publishing platform.

Linking constructions vs. linking rules: evidence from French

*Jean-Pierre Koenig**

University of California at Berkeley

koenig@garnet.berkeley.edu

In trying to understand the nature of the mapping of semantic structure onto surface syntax, linking theories are driven by their answers to the following two questions: (i) how much and what kind of information is relevant for the statement of linking rules; (ii) how general are these rules within and across languages. Baker, 1988, Zubizarreta, 1987, and, to a certain extent, Grimshaw, 1990, provide one set of answers to these questions. According to these theories, the information available for the mapping is minimal (a theta-grid with or without theta-role labels), and cannot make reference to the fined-grained semantic structure associated with each lexical entry. Moreover, the mapping is maximally regular within and across languages. The strongest form of this latter hypothesis is of course Baker's UTAH principle, which claims:

'Identical thematic relationships between items are represented by identical structural relationships between those items at the level of D-structure' (Baker, *op.cit.*, p.46)

In this paper, I wish to present some empirical evidence in support of a very different view of linking. According to the theory underlying this paper,¹ linking patterns are word-level templates directly associating semantic structure and (underspecified) subcategorization requirements. They describe classes of words within an inheritance-based hierarchical lexicon (see Flickinger, 1988, Pollard and Sag, 1993). Such a view of linking makes two predictions which directly contradicts the assumptions mentioned in the last paragraph. (i) Linking processes can have access to the entire semantic and syntactic information carried by lexical entries, since linking rules are abstractions over actual lexical items. (ii) Although they can be very general and specify a minimum amount of information, they can also include constraints which are both language-specific and construction-specific, since linking patterns form an inheritance hierarchy of more or less general types. The linking construction I concentrate on in this paper and which I call the Dative Predication construction (DP) supports both of these predictions. It was first discussed at length in Ruwet, 1982, and is exemplified in (1a)-(2a).

- (1) a. Je veux bien admettre des circonstances atténuantes à certains criminels...
I want.PR well admit.INF some circumstances mitigating to some criminals...
b. Je veux bien admettre que certains criminels ont des circonstances atténuantes...
I want.PR well admit.PR that certain criminals have.PR INDEF circumstances mitigating
'I am willing to admit that certain criminals have mitigating circumstances...'
- (2) a. Le fisc lui estime une fortune de 3 Millions de francs.
The I.R.S. to.3SG esteem.PR a fortune of 3 Millions of francs
b. Le fisc estime qu'il a une fortune de 3 Millions de francs.
The I.R.S. to.3SG esteem.PR that he have.PR a fortune of 3 Millions of francs
'The I.R.S thinks he has a fortune of 3 Million francs'

1. Description of the DP

Let me first describe the facts particular to the DATIVE PREDICATION construction which are relevant for my general, theoretical point concerning the nature of linking.

First, the DATIVE PREDICATION pattern constrains the semantics of verbs it applies to, like *admettre* in (1a). As many other valence alternations (see Green, 1974, Pinker, 1989, Gropen, Pinker, Hollander, and Goldberg, 1991, Goldberg, 1991), the pattern is restricted to a few narrowly defined verb classes, and cannot apply to verb classes apparently similar semantically. At my last count, there are at least sixty verbs which participate in the pattern. I list below the classes of verbs which can head a DATIVE PREDICATION sentence, as well as two classes which cannot.

Verb classes which can participate in the alternation

VERBS OF ASSERTION

Assertives: affirmer 'affirm', assurer 'insure', proclamer 'proclaim', prétendre 'pretend'...

Verbs of saying: dire 'say', murmurer 'whisper'...

Commissives as assertives: promettre 'promise', parier 'bet', jurer 'swear'...

Declaratives as assertives: reconnaître 'recognize', décréter 'decree', déclarer 'declare'...

Verbs of admission: confesser 'confess', admettre 'admit', accorder 'grant'

VERBS OF MENTAL REPRESENTATION

Verbs of coming to notice: noter 'note', trouver 'find out', découvrir 'discover'...

Verbs of coming to perceive: voir 'see', sentir 'feel', (?)flairer 'smell'...

Verbs of guessing: imaginer 'imagine', deviner 'guess', soupçonner 'suspect'...

Verbs of state of knowledge: savoir 'know', croire 'believe', douter 'doubt'...

VERBS OF EMOTIONAL ATTITUDES

aimer 'like', craindre 'fear', regretter 'regret', espérer 'hope'...

Verb classes which cannot participate in the alternation

VERBS OF LEARNING AND UNDERSTANDING

apprendre 'learn'; comprendre 'understand'...

VERBS OF EXPLANATION OR SIGNALING

montrer 'show', expliquer 'explain', signaler 'signal', indiquer 'indicate'...

More important for us, the classes of verbs which alternate between DP and sentential complementation structures are the same classes which alternate between raising-to-object and sentential complementation structures (see (3) for an example of a raising-to-object structure in French):

- (3) Je croyais Marc heureux.
I believe.IMPF Marc happy
'I thought Marc happy'²

The second fact of relevance is that the direct object and à-PP complement of examples (1a)-(2a), do not form a constituent of the surface string. Notably, they do not form a small clause à la Stowell, 1983, *contra* Guéron, 1985, as shown by the fact that the sequence of the direct object and à-PP complement cannot be the dislocated element of a cleft or ps-cleft structure:

- (4) a. (?)Je croyais une maîtresse dans chaque port à ce vieux marin (Ruwet).
I think.pst a mistress in every harbour to this old sailor
'I thought that this old sailor had a mistress in every harbour'
- b. *C'est une maîtresse dans chaque port à ce vieux marin que je croyais.
It be.PR a mistress in every harbour to this old sailor that I think.PST
- c. *Ce que je croyais, c'est une maîtresse dans chaque port à ce vieux marin.
That which I think.PST it be.PR a mistress in every harbour to this old sailor.
- (5) a. Je trouve beaucoup de charme à cette musique.
I find.PR a.lot of charm to this music
'I find that this music has a lot of charm'
- b. *C'est beaucoup de charme à cette musique que je trouve.
It be.PR a.lot of charm to this music that I find.PR
- c. *Ce que je trouve, c'est beaucoup de charme à cette musique.
That wich I find.PR it be.PR a.lot of charm to this music.

There is also abundant evidence againt Guéron's specific proposal that sentences like (6a) have the structure in (6b), i.e. that *des ennuis* is the predicate of a small clause:

- (6) a. Je leur promets des ennuis. 'I promise that they will have difficulties'
b. Je leur_i promets [_{sc} [e_i] des ennuis]

First, by opposition to ordinary predicates of small clauses (see (7b)), the structural position or grammatical function of NP's like *des ennuis* is not fixed in object position. They can be the subject of a passive sentence (8); the subject of a Tough-verb (9), or an extraposed constituent (10):

- (7) a. Jean a été cru son meilleur ami pendant longtemps
Jean have.PR be.PPT believe.PASS his best friend during long.time
'Jean was believed his best friend for a long time'
- b. *Son meilleur ami a été cru Jean pendant longtemps
His best friend have.PR be.PPT believe.PASS during long.time
- (8) De nombreux défauts lui ont été découverts
INDEF numerous faults to.3SG have.PR be.PPT discover.PASS
- (9) ?Une interprétation ésotérique serait difficile à découvrir aux oeuvres de
A interpretation esoteric be.COND difficult to discover.INF to.the works of
George Lakoff
George Lakoff (Ruwet's example (47)).
'It would be difficult to discover esoteric interpretations to G. Lakoff's works'
- (10) Il lui a été trouvé du charme
It to.3SG have.PR be.PPT find.PASS INDEF charm
'People found that he had some charm'

Second, NP's like *des ennuis*, when realized as direct objects can cliticize as any ordinary direct object. They do not cliticize as the pro-predicate clitic *le*, as the contrast between (11b) and (12b) shows:

- (11) a. Ils sont mes meilleurs amis
'They are my best friends'
- b. Ils le sont
They 3ACC.SG are [i.e. my best friends]

- (12) a. Je lui ai vu ces volumes entre les mains
 I to.3SG have.PR see.PPT these books between the hands
 'I have seen him with these books in his hands'
 b. Je les (*le) lui ai vus entre les mains
 I 3ACC.PL (*3ACC.SG) 3SG.DAT have.PR see.PPT between his hands
- (13) Il l'a été longtemps cru [e.g. fou]
 He 3ACC.SG have.PR be.PPT long.time believe.PASS [fool]
 'He was believed to be so for a long time [e.g. fool]'

This impossibility of cliticizing the object NP as the pro-predicate clitic *le* cannot be accounted for by appealing to a general prohibition against such cliticization of the pro-predicate in raising-to-object structures, as the grammaticality of (13) shows. The ungrammaticality of (12b) with *le*, and its grammaticality with *les* is thus left unexplained, if *des ennuis* in (6) is just the predicate of an ordinary small clause, as Guéron assumes.

I now turn to the third fact of relevance, the semantic constraint the DP pattern imposes on the relation between the denotata of *à certains criminels* and *des circonstances atténuantes* in (1a). As the gloss suggests, the relationship between the two denotata is paraphrasable by *have* in English or *avoir* in French, and seems to involve some notion of possession. In fact, a DP sentence always denotes the same situation-type as a sentence where the same verb, like *admettre* in (1a)-(1b), has a sentential complement whose main verb is *avoir* 'have', as in (1b). Sentences (14)-(18) are examples of the five major classes of relations that can hold between the denotata of the two NP's.

OWNERSHIP

- (14) Tiens, il a une Toyota. Je lui croyais une Renault 18.
 Hold, he have.PR a Toyota. I to.3SG believe.IMPF a Renault 18.
 'Hmm! He has a Toyota. I thought he had a Renault 18'

ABSTRACT PROPERTY

- (15) Je lui aimerais davantage d'enthousiasme
 I to.3SG like.COND more of enthusiasm
 'I would like him to have more enthusiasm'

INALIENABLE POSSESSION

- (16) Je lui crois le bras gauche plus fort que le bras droit.
 I to.3SG believe.PR the arm left more strong than the arm right
 'I believe that he has a stronger left arm (than the right one)'

SOCIAL RELATIONSHIPS (INCLUDING KINSHIP)

- (17) Nous lui savons plusieurs contacts au pentagone.
 We to.3SG know.PR several contacts at.the pentagone
 'We know that he has several contacts in the pentagone'

EXPERIENCES (EVENTS THAT HAPPEN TO AN INDIVIDUAL)

- (18) Je lui prédis de nombreux accidents avec ce tas de ferraille.
 I to.3SG predict.PR some numerous accidents with this heap of scrap
 'I predict that he will have a lot of accidents with this pile of junk'

What is common to all these relationships? An answer, I think, can be found if we compare the range of semantic relations found here and that which can hold between the denotata of a noun and its genitive complement. Nikiforidou, 1991 argues convincingly that the set of relations which can hold between a genitive and the head noun it complements is not infinite in range, but is restricted to literal or metaphorical

possession or origin. The details of her analysis are not important for us here. What is remarkable is the fact that the set of possible semantic relations between the denotata of the two relevant NP's in the case of the DP construction or *avoir* 'have' is a well-defined subset of the relations which a genitive or PP headed by *de* can denote: either literal possession or any metaphorical extension of the possession relation. In examples (19)-(22) I give corresponding examples with *avoir* and *de*, as well as the name of the metaphors involved (see Lakoff, Espenson, and Schwartz, 1991 for a more thorough description of these metaphors). There thus seems to be a "natural" semantic class with respect to which all three constructions are defined. Although my argument does not depend on this analysis of the nature of the semantic class, I assume in what follows it consists of the relation of literal possession and any metaphorical relation of possession, where metaphorical possession relations are defined as the output of metaphorical mappings taking literal possession as their source domain (see Lakoff, 1992 on the notion of metaphorical mapping). I name this class of relations EXTENDED-POSSESSION.

Corresponding uses of *avoir* or *de*

PARTS ARE POSSESSIONS

- (19) a. Il a de très beaux yeux. 'He has very nice eyes'
 b. Les yeux de Jacques sont très beaux. 'Jack's eyes are very nice'

PROPERTIES ARE POSSESSIONS

- (20) a. Il a de l'admiration pour elle. 'He has some admiration for her'
 b. L'admiration de Jacques pour sa musique est extraordinaire.
 'Jack's admiration for his music is extraordinary'

THINGS THAT HAPPEN TO US ARE POSSESSIONS

- (21) a. J'ai eu un accident la semaine dernière. 'I had an accident last week'
 b. L'accident de Jacques nous a rappelé à la réalité.
 'Jack's accident brought us back to reality'

A PERSON WHICH PLAYS A SOCIAL ROLE IN YOUR LIFE IS A POSSESSION

- (22) a. J'ai un nouvel ami. 'I have a new friend'
 b. L'ami de Jacques est gentil. 'Jack's friend is nice'

I have now described the three crucial facts for my argument concerning the nature of linking: (i) the DP applies to the same semantically defined classes of verbs which can enter into RAISING-TO-OBJECT structures in French (see endnote 2 for qualifications); (ii) verbs to which the DP has applied subcategorize for three complements, and do not subcategorize for a small clause; (iii) the DP constrains the semantic relationship between the denotata of two of these three complements to be one of extended-possession.

2. How to relate the two valences which DP verbs can enter into?

The question before us now is how to relate the two valences which DP verbs can enter into. To clarify the nature of the problem, I have diagrammed in figure 1 what we know so far. On the left is represented the relevant information contained in the entry for *admettre* when it takes a sentential complement. It contains two valence requirements (subcategorized-for complements, roughly speaking) corresponding respectively to the person making the admission and the admission arguments. On the right I have represented the information we already know *admettre* contains when it enters the DP pattern.

We know there is still a valence requirement corresponding to the person admitting the proposition. It is expressed by *je* 'I' in (1a). We know *admettre* still subcategorizes for two other complements at least (fact 2 of section 1). One of them is always an \hat{a} -PP bearing a complement or indirect grammatical function (*\hat{a}* *certain* *criminels* in (1a)).³ The grammatical function of the other is not fixed by the DP pattern itself, as exemplified in sentences (1a) and (8)-(10). Finally, we know two things from the semantics of DP sentences (fact 3 of section 1): (i) the nature of the admitted proposition, namely that there is a relation of extended-possession between two entities; (ii) that the PP complement of sentences like (1a) does not correspond to the possessed entity, and conversely that the direct object does not correspond to the possessor. What we crucially do not know from the data presented in section 1, is whether the PP complement corresponds to the possessor or the possession relation and similarly whether the direct object corresponds to the possessed entity or the possession relation. These three *a priori* possibilities are represented in figure 2 and 3, where the arrows stand for correspondences between valence requirements and conceptual arguments, and conceptual arguments are represented by variables. I added a fourth analysis, according to which *admettre* when used in DP structures subcategorizes for an (unexpressed) requirement corresponding to the admitted proposition, as well as for requirements corresponding to the possessor and possessed entities.

The third analysis (represented in c) in figure 3) makes the hypothesis that the direct object of (1a) denotes the possession relation as well as the possessed object, whereas the PP complement of (1a) denotes the possessor argument. It is the least attractive of all four analyses. Firstly, if we adopt this analysis, we must posit a special NP construction to map the ordinary meaning of *des circonstances atténuantes* in (1a) onto a meaning paraphrasable by "has attenuating circumstances". There is no evidence of such a zero-marked NP construction anywhere in French outside of this construction. Secondly, positing this construction does not save us from positing another special construction to account for the linking of the possessor argument to the \hat{a} -PP complement in (1a) (see next section for more evidence on this point). Finally, the NP *des circonstances atténuantes* in (1a) does not behave like other predicative nouns, as we have seen above.

Analysis b) and d) are very similar. They both assume that the PP complement of (1a) corresponds to the possessor, and the direct object to the possessed entity. They only differ by the presence of a valence requirement corresponding to the admitted proposition argument of *admettre* in d). *Ceteris paribus*, analysis d) is to be preferred. First, the entry for *admettre* posited by analysis b) cannot be monotonically related to the ordinary entry for *admettre* partially diagrammed in figure 1, right column. Only the latter contains a valence requirement corresponding to the admitted proposition. The two entries of figure 1 would therefore have to be related via a (lexical) rule altering the subcategorization requirements of *admettre*. Allowing such a non-monotonic change of syntactic information adds power to the already needed monotonic superimposition of patterns (or unification of feature-structures) assumed in unification-based grammars. Second, analyses d) and a)-- but not analysis b) and c)-- enable us to explain the similarities between DP and ordinary raising-to-object structures, not only with respect to the identity of the verbs they can apply to (fact 1 of section 1), but also with respect to the pragmatics of the construction. Ruwet (op.cit.) shows that the same "directness"/"focus of attention" effect noted by Borkin, 1984/1974 for English RAISING-TO-OBJECT occurs with DP sentences. By choosing either analysis d) or a), we *de facto* analyze DP sentences as special cases of RAISING-TO-

OBJECT, as I show below, and thus directly account for both facts. Analyses b) and c) do not allow this generalization to be captured.

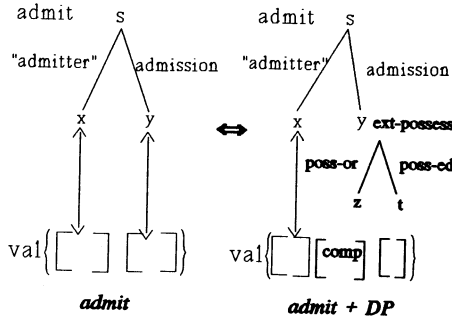


Figure 1

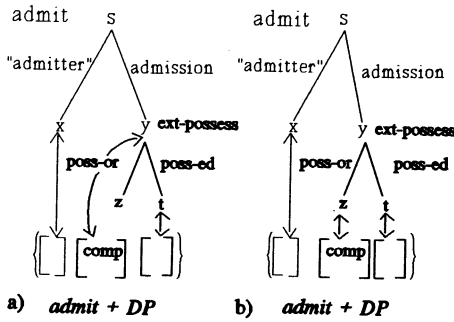


Figure 2

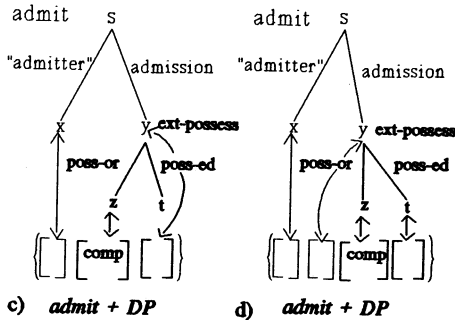


Figure 3

To choose on an empirical basis between analyses a) and d) is difficult. Neither requires an enrichment of the grammatical mechanisms assumed here. Both minimize the amount of redundancy necessary to describe the DP construction by extracting all that can be predicted from other French linking patterns. I present analysis a) here, simply because of its ease of description. A very similar account could be provided, if one were to choose analysis d).⁴

The a) analysis assumes the PP *à certains criminels* codes an (extended)-possession relation, while its NP complement codes the possessor argument of this relation. Finally, the object NP *des circonstances atténuantes* denotes the possessed entity. Formally, the surface realization of *à certains criminels* and *des circonstances atténuantes* as sisters to *admettre* in (1a) depends on the application of two linking constructions to the verb *admettre*, the DP construction proper, and ordinary raising-to-object. These two constructions unify with the underspecified entry for *admettre* represented in the left of figure 1 to account for (1a) in the following way.

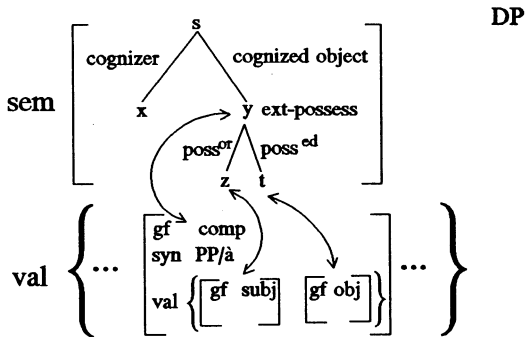


Figure 4

The DP construction proper (see figure 8 for a formal representation and figure 4 for an informal diagram) specifies three pieces of information concerning the set of valence (subcategorization) requirements of verbs it applies to. (i) The cognized object of verbs the DP pattern applies to (the admitted proposition of *admettre* in (1a)) can be realized through an *à*-PP whose grammatical function is COMP.⁵ (ii) This PP denotes an extended-possession relation. (iii) The object of the PP corresponds to the possessor argument of this possession relation, and its subject to the possessed entity. By linking the possession relation to a predicate PP, the DP construction indirectly makes available an unsatisfied subject valence requirement, corresponding to the possessed entity, as other XP predicates do in ordinary raising-to-object structures (see *heureux* in (3)). In other words, as other predicate phrases, the *à*-PP subcategorizes for a subject requirement, which is not satisfied internally to the PP. It is this subject requirement which the ordinary RAISING-TO-OBJECT construction then “raises” onto the subcategorization set of the verb to which the DP applies (see the appendix for a formal representation of the raising-to-object construction, and figure 5 for an illustration of its application to the DP valence of *admettre*).⁶

Informally speaking, RAISING-TO-OBJECT in CG, (as in HPSG, see Pollard and Sag, op.cit.) simply consists in the identification of one of the valence requirements of the complement verb with one of the valence requirements of the governing verb. It is indicated by an equal sign on the dotted arrow connecting the subject of the PP and the element added to valence of *admettre* in figure 5. By identifying it with a requirement of *admettre*, this construction allows the subject requirement of the PP à *certaines criminels* to be realized phrase-structurally within the VP headed by *admettre* in (1).

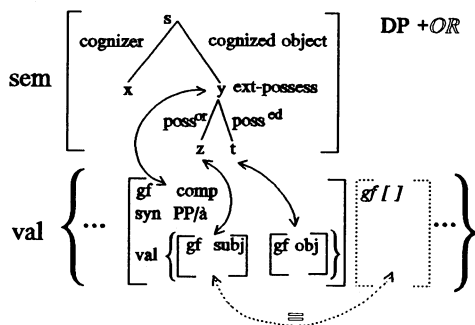


Figure 5

As can be seen in figure 5, the raising-to-object construction does not by itself specify the grammatical function of the “raised” valence requirement. It simply “transmits” the subject subcategorization requirement of the PP to the valence set of the DP verb. Other French linking patterns are thus free to apply and assign it the object function, as in (1a), the subject function as in sentences (8) or (9) or an extraposed function as in (10). According to the analysis presented here, then, DP sentences like (1a) are the result of the interaction (technically, the unification) of ordinary French linking constructions, like raising-to-object, passive, extraposition... with a special linking pattern. This pattern, which must be learnt independently, associates the cognized object of certain verbs with a complement à-PP predicate, provided this predicate denotes a relation of extended possession.

Leaving aside now the technical details of the analysis briefly presented above, what does the DP linking pattern demonstrate concerning the nature of linking? It clearly shows the empirical inadequacy of the two assumptions often made about linking which I mentioned in the introduction. It contains a relatively large amount of information and some of the semantic information it specifies is not reducible to the ethereal theta-role labels. It is entirely consonant, on the other hand, with the alternative view that linking rules are word-level templates. As word-classes, linking patterns are expected to be able to access the entire informational structure specified within lexical entries.

As the reader might have noted, my argument rests on the implicit assumption that we cannot separate the semantic effect and the linking function of the DP pattern, and that, consequently, the assignment of an à-PP complement *must* idiosyncratically make reference to the rich semantic properties described in section 1. In the next section, I justify this assumption, by showing that any attempt to separate the two functions leads

either to overgeneration or to a linking rule with essentially the same properties as the DP construction described in this section.

3. Is the linking of possessor to dative more general?

To make things more concrete, I have represented in figure 6 a plausible rival account of the DP pattern which does separate its semantic effect from its linking function. The proposal is based on the theory of argument-structure presented in Pinker, 1989. This account separates the mapping of semantic argument-structure onto grammatical functions into two parts. First, a DP lexical rule maps the basic entry for *croire* on the top left of the figure onto the derived entry on the top right by adding the extended-possession relation to the lexical conceptual structure associated with *croire*. Second, general linking rules associate the EXPERIENCER, THEME, and POSSESSOR of the derived entry to the subject, object, and indirect object functions respectively, without making reference to the application of the DP lexical rule or the rich semantics of its output. This analysis thus admits, like we do, that there are processes which can access the fine-grained semantics of lexical items (see the top of figure 6), but claims that linking rules do not. DP sentences, according to this analysis do not therefore illustrate an idiosyncratic linking pattern, but rather the combination of a lexical rule affecting the semantics of verbs belonging to certain narrowly defined classes, and a general rule linking the possessor to the indirect object.

Can we abstract the possessor linking rule from the DP lexical rule, as implicitly claimed in figure 6? Initially, there seems to be some support for this claim. French contains other structures where either possession relations or possessors are linked to indirect objects, as sentences (23) and (24) show:

- (23) La table est à lui. 'The table belongs to him/her'
The table be.PR to.3SG
- (24) Marc lui a brossé les cheveux. 'Marc brushed her hair'
Marc to.3SG have.PR brush.PPT the hairs

Both structures intuitively express the possession by the referent of *lui* of the table in (23), and hair in (24). The analysis sketched in figure 6 seems supported. The indirect object linking rule must not be tied to the DP pattern *per se*.

In fact, such an analysis cannot stand as is. The reason is simple. The two patterns exemplified in (23) or (24) do not code the *same* notion of possession as the extended-possession characteristic of the DP pattern. Each pattern is dedicated to a specific set of possession relations. The construction exemplified in (23) constrains the relation between the denotata of the two NP's to be one of literal possession, or ownership. In particular, it cannot be used when the relation is one of inalienable possession or of possession of an abstract property, as seen in (25)-(26):

- (25) *La main est à moi (intended 'This is my hand') INALIENABLE POSSESSION
The hand be.PR to me
- (26) *Du charme est à lui (intended 'He has some charm') ABSTRACT PROPERTY
INDEF charm is to him/her

Similarly, the construction illustrated in (24) is restricted to relations of inalienable possession. It cannot, for example, be used when the possession relation is true ownership (27) or when the possession is one of a social relationship (28):

- (27) *Je lui ai brossé le tapis. OWNERSHIP
 I to.3SG have.PR brush.PPT the carpet
 'I brushed his carpet' [intended meaning]
- (28) *Je lui ai tué les ennemis. SOCIAL RELATIONSHIPS
 I to.3SG have.PR kill.PPT the enemies
 'I killed his enemies' [intended meaning]

The contrast between the set of relations that can hold between the denotata of the two NP's in the three constructions invalidates the claim that the linking of the indirect object in sentences like (1a) can be abstracted from the idiosyncratic notion of extended-possession characteristic of the DP pattern. If it could, this linking rule would be available for other structures, and (25)-(28) would be grammatical. Despite the obvious similarities between the DP construction and the two constructions exemplified in (23)-(24), all three indirect object linking patterns cannot therefore be conflated.

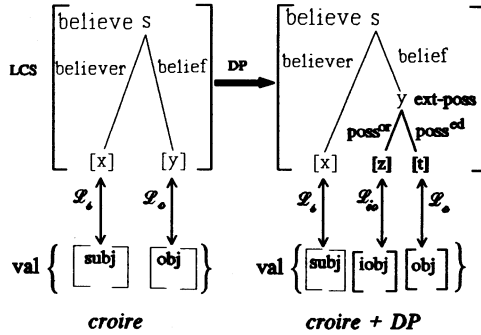


Figure 6

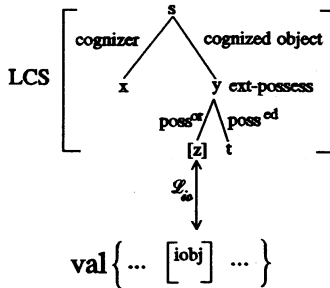


Figure 7

Of course, we could assume that the indirect object linking rule is much more complex than I have suggested, and is conditioned by the presence in a verb's entry of a large chunk of conceptual structure. The simple-minded linking rules of figure 6 which

made reference only to the semantic role of the relevant arguments (i.e. EXPERIENCER, THEME and POSSESSOR) could be replaced by linking rules such as the one represented in figure 7, in the spirit of the linking rule proposed for the secondary object of English ditransitives by Pinker.⁷ By including much more conceptual structure in linking rules, we can avoid making reference to the DP lexical rule itself, while *de facto* restricting the application of the linking rule to the output of the lexical rule, since both now constrain the propositional argument to denote an extended-possession relation. But the cost of such a move is high. First, we have to assign a special semantic chunk to the linking rule that is, by coincidence, only found in entries that are the output of the DP lexical rule. Second, we have lost the main motivation for separating the semantic effect of the DP pattern from its linking function: we still need three different indirect object linking rules, and the possessor linking rule is not any simpler. The degree of semantic complexity necessary for its statement is of the same order of magnitude as that exhibited by the DP construction of figure 4. And it must be supplemented by the added machinery of lexical rules, which the constructional analysis presented above avoided.

This paper has decried a productive French linking pattern which includes constraints that are both language and construction-specific and informationally complex. Within theories like CG where linking patterns are word-level templates, the existence of such patterns is not anomalous, since the overall informational structure needed for their statement is exactly that predicted to be available, if linking rules are word classes, i.e. abstractions over actual lexical entries.

Still, linking, as analyzed here, looks more complex than in many other theories. In fact, the "added complexity" is only apparent. For one thing, the increased vocabulary over which linking is defined is needed independently. After all, at one point or another, we have to deal with the full semantic representation of lexical entries. And if linking patterns are basically a classification of words according to how they map their semantic structure onto their subcategorization requirements, the potential informational complexity of patterns like the DP construction is simply that of lexical items. Second, by allowing more information to be available for the statement of linking constructions, we are not condemned to miss any language-specific or cross-linguistic generalizations. The analysis I proposed, for example, abstracted from the DP construction all that can be predicted from more ordinary linking constructions: RAISING-TO-OBJECT, PASSIVE... What is left is the truly idiosyncratic information, what the native speaker of French does not know when encountering a DP sentence for the first time. Third, by allowing linking patterns to have access to the entire information present in lexical items, we can actually simplify the overall structure of the grammar: we can model patterns of various degrees of generality without a change in the type of grammar. Both the usual passive or raising-to-object constructions, and the complex DP pattern are defined with the help of the same informational structure and formal apparatus. The latter only contains more of it.

Endnotes

* I would like to thank Adele Goldberg, George Lakoff, Sam Mchombo, Ivan Sag, and especially Paul Kay for their comments on previous versions of this paper. All remaining

errors are mine, of course.

1. For some recent work on linking within the general framework of Construction Grammar (CG), see Goldberg, 1992, Fillmore and Kay, 1991, Koenig, 1992. For a quite similar view within another framework, see the theory of constructional idioms in Jackendoff, 1990.

2. Two remarks are in order here. First, although Ruwet (op.cit.) gives examples of minimal pairs where the same verb appears felicitously in a raising-to-object structure but not in a DP structure (and reciprocally), for any of the small set of such verbs, one can construct sentences involving the same verbs where the difference in acceptability is marginal. Ruwet, for example, cites *estimer* as unfelicitous in the DP structure, but it is good in sentences like (2a). These subtle differences in degree of acceptability do not therefore invalidate the general claim that the class of (alternating) DP verbs is identical to the class of (alternating) raising-to-object verbs.

Second, the identity between the two classes of verbs holds only of verbs which ALTERNATE. Verbs of causation or perception-- assuming they are raising verbs-- only appear in ordinary raising-to-object structures. They do not enter in the DP pattern. Note that the absence of a DP valence in their case is due to semantic reasons (i.e. their predicative complement does not denote an extended-possession relation, see below). Conversely, some verbs, like the the epistemic use of *donner* in *On lui donne vingt ans* 'People think he is 20 yrs old' only occur in the DP pattern.

3. Whether we assign a complement or indirect object GF to the $\dot{\lambda}$ -PP is a purely technical matter. The important point is that the GF of the PP is fixed by the DP construction. I use *complement* in the description of MY analysis, and *indirect object* when discussing OTHER possible analyses to conform to more traditional labels.

4. Analysis d) might have one slight advantage over analysis a): it would not require us to assume that a predicate can be realized by a complement PP headed by $\dot{\lambda}$. Since this advantage is more theoretical than empirical, I still choose solution a) for ease of description.

5. To simplify both the informal and formal statements of the construction, I have not represented the indexing of the verb classes to which the construction can apply within the diagrams. The reader should keep in mind that the construction diagrammed in figure 4 and 8 is restricted to the verb classes mentioned in section 1.

6. Note that we do not need to stipulate that the raising-to-object construction must apply whenever the DP construction applies. The necessity of the former construction's application is a consequence of independently motivated facts and principles of Construction Grammar (CG): (i) all subcategorization requirements must be satisfied; (ii) the subject of a PP or of a VP cannot be realized internal to this PP or VP (in French); (iii) raising and equi constructions are the only way to "transmit" a subject requirement to the next predicator up; (iv) the subject of the PP which is realized within the VP headed by *admettre* in (1a) (*des ennuis*), is not a semantic argument of the relation denoted by *admettre*, and (1a) is not therefore an "equi" structure.

7. The reader should keep in mind that in figure 6, the complex conceptual structure represented in the upper part of the diagram is not necessary for the statement of the linking rules. We only need to know the θ -roles of the relevant arguments. By contrast, the conceptual structure diagrammed in figure 7 is an integral part of the statement of the linking rule.

Works Cited

- Baker, Mark. *Incorporation*. Chicago: Chicago University Press, 1988.
- Borkin, Ann. *Problems in Form and Function*. Norwood, NJ: Ablex, 1984/1974.
- Fillmore, Charles, and Paul Kay. *On construction grammar*. University of California at Berkeley Ms. 1991.
- Flickinger, Daniel. *Lexical Rules in the Hierarchical Lexicon*. Diss. Stanford University, 1988.
- Goldberg, Adele. "On the Problems of Lexical Rules Accounts of Argument Structure." *Proceedings of the Annual Cognitive Science Society Conference* (1991).
- . "The Inherent Semantics of Argument Structure: the Case of the English Ditransitive Construction." *Cognitive Linguistics* 3.1 (1992): 37-74.
- Green, Georgia. *Semantics and Syntactic Regularity*. Bloomington: Indiana University Press, 1974.
- Grimshaw, Jane. *Argument Structure*. Cambridge, Mass: MIT Press, 1990.
- Gropen, Jess, et. al. "Affectedness and Direct Objects: the Role of Lexical Semantics in the Acquisition of Verb Argument Structure." *Cognition* 41.4 (1991): 153-195.
- Guéron, Jacqueline. "Inalienable Possession, PRO-Inclusion and Lexical Chains." *Grammatical Representation*. Ed. Jacqueline Guéron, Hans-Georg Obenauer and Jean-Yves Pollock. Dordrecht: Foris, 1985. 42-86.
- Jackendoff, Ray. *Semantic Structures*. Cambridge: MIT Press, 1990.
- Koenig, Jean-Pierre. "Shared Structure Vs. Constructional Autonomy in Construction Grammar." *Proceedings of the 15th meeting of the International Congress of Linguists* (1992).
- Lakoff, George. "The Contemporary Theory of Metaphor." *Metaphor and Thought*. 2nd Edition. Ed. A. Ortony. Cambridge: Cambridge University Press, 1992.
- Lakoff, George, Jane Espenson, and Alan Schwartz. *Master Metaphor List, 2nd Edition*. Berkeley: Berkeley Linguistics Dept., 1991.
- Nikiforidou, Kiki. "The Meanings of the Genitive: a Case Study in Semantic Structure and Semantic Change." *Cognitive Linguistics* 2.2 (1991): 149-205.
- Pollard, Carl, and Ivan Sag. *Head-driven Phrase-Structure Grammar*. CSLI: Chicago University Press, 1993.
- Pinker, Steven. *Learnability and Cognition: the Acquisition of Argument Structure*. Cambridge, Mass.: MIT Press, 1989.
- Ruwet, Nicolas. "Le datif épistémique en français et la condition d'opacité de Chomsky." *Grammaire des Insultes et Autres Études*. Paris: Seuil, 1982. 172-204.
- Stowell, Timothy. "Subjects across categories". *The Linguistic Review* 2 (1983): 285-312.
- Zubizarreta, Maria-Luisa. *Levels of Representation in the Lexicon and in the Syntax*. Foris: Dordrecht, 1987.

Appendix

THE DP CONSTRUCTION

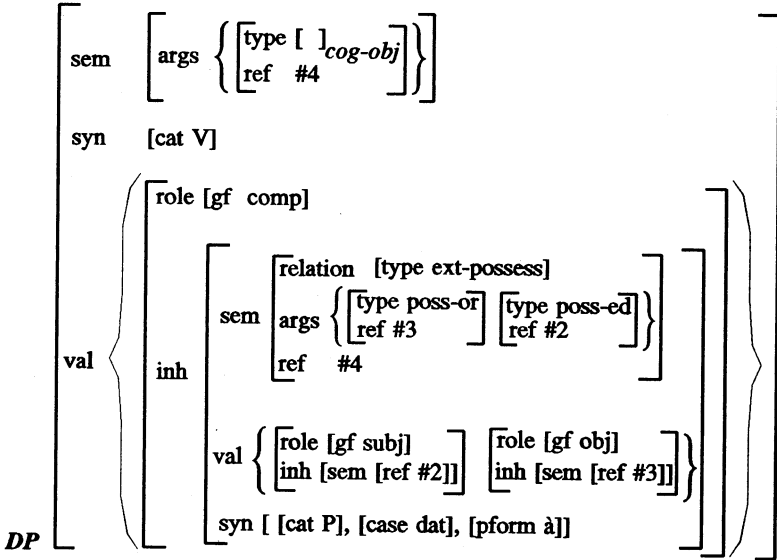


Figure 8

THE NON-VERBAL OBJECT-RAISING CONSTRUCTION

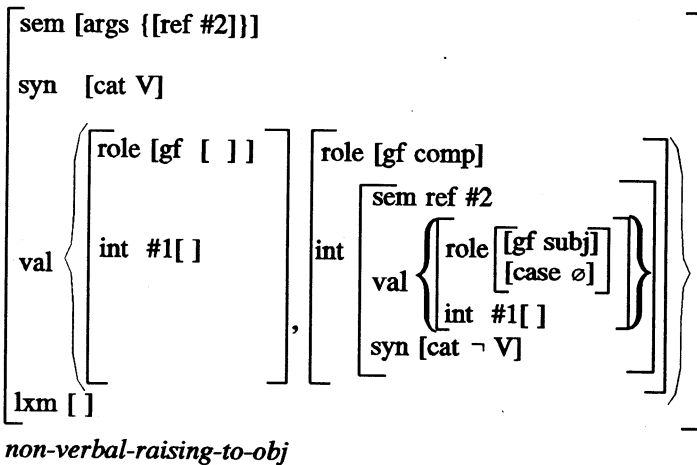


Figure 9