Theoretical Analyses
in Romance Linguistics

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Linking and case:
The case of prepositional verbs[1]

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1. Introduction

This work is part of a larger study on the mechanics of argument linking[2] in transitive and non-transitive structures. The general framework for the proposals to be developed includes the following:

(a) There exist general principles specifying how the thematic information stored in the lexicon — the specific information about predicate-argument relations — is projected onto basic syntactic configurations at D-structure. These principles, in general, establish correlations among thematic roles ('meaning' in an intuitive sense), syntactic categories (canonical structural realizations) and/or specific syntactic positions (cf. Hale and Keyser's (1986) "Unmarked Theta-Assignment Convention" or Baker's (1988) "Uniformity of Theta Assignment Hypothesis"). These general principles, moreover, can be statements about prominence relations among arguments or about the order in which they are linked or projected (cf. Belleti and Rizzi (1988) on the projection of the Th-grid (Experiencer-Theme) or Grimshaw (1990)).

(b) Besides the facts about linking which fall under these general principles — mostly related to the content of the arguments — there appear to be exclusively structural constraints over the linking, for instance, the 'unambiguous path' principle postulated by Kayne (1984a) or the suggestion that verbs can assign theta roles only in three ways: directly, indirectly or through the process of predication (cf. Marantz (1984)).

In working out (b), it becomes apparent — to this writer, at least — that the analysis of the thematic and categorial role played by prepositions

in different kinds of prepositional structures can cast crucial light on the nature of the linking process. More specifically, I would like to establish first that there is a significant difference among prepositions which assign theta-role and inherent Case, prepositions which are a mere manifestation of structural Case and prepositions which head a predicate. A second claim will be that the distinction between thematic or inherent Case and structural or agreement Case is related in a meaningful way to different kinds of argument structures — instances of a Case by agreement being nominative, accusative and prepositional-accusative or aspectual case.

This paper will explore the content and the consequences of these claims through the analysis of a special case: the behavior of so-called prepositional verbs, i.e. verbs which govern and sometimes theta-mark their sister constituent by means of a preposition. In my analysis I will use data from Spanish.

2. Two classes of prepositional verbs

2.1 *External differences*

I want to take as a point of departure the claim that there are two classes of prepositional verbs, as illustrated in (1) and (2), respectively:

(1) a. *La reunión consistió en un encierro.*
         "The meeting consisted in confinement."

     b. *La afectada   prorrumpió en sollozos.*
         the affected-FEM-SG broke   in sobs
         "The affected (person) broke into tears."

     c. *El capítulo consta   de cinco partes.*
         the chapter consists of five   parts
         "The chapter is made up of five parts."

     d. *El libro abunda en improperios.*
         "The book abounds in insults."

     e. *Esta presentación adolece de múltiples defectos.*
         "This presentation suffers from multiple defects."

     f. *La tesis   versa sobre el adjetivo.*
         the thesis treats about the adjective
         "The thesis deals with the adjective."

     g. *El acuerdo   redundará en beneficios para todos.*
         the agreement will-result in benefits   for all
         "The agreement will result in benefits for everyone."

     h. *El acuerdo depende de los sindicatos.*
         "The agreement depends on the unions."

(2) a. *Esta autora   discrepa de mis opiniones.*
         this author-FEM differs   of my opinions
         "This author disagrees with my opinions."

     b. *El policía insistió en su afirmación.*
         "The policeman insisted on his claim."

     c. *El nuevo texto incurre en los mismos   defectos.*
         the new text incurs in the same   defects
         "The new text incurs the same mistakes."

     d. *El jefe abusa   de sus empleados.*
         the boss exploits of his employees
         "The boss exploits/takes advantage of his employees."

     e. *La universidad prescindirá   de sus   servicios.*
         the university will-dispense of your services
         "The university will dispense with your services."

     f. *El gato alardea de traje nuevo.*
         the cat brags   of suit new
         "The cat brags about his new suit."

     g. *Las nuevas ideas pugnan por su   sitio adecuado.*
         the new   ideas fight for their place right
         "New ideas fight for their right place."

     h. *El no renunciará a la   falta de escrúpulos.*
         he not will-resign to the lack of scruples
         "He will not give up the lack of scruples."[3]

There is an interesting set of external properties along which both classes of verbs appear to diverge. First, the prepositional phrase can never be suppressed with the verbs in (1) while it can be omitted with those in (2); compare (3) to (4):

(3) a. –*¿La reunión consistió en un encierro?*
         the meeting consisted in confinement
         "Did the meeting consist in confinement?"

*—No,   creo   que *no* consistió.
no *pro* think-1SG that not consisted
"No, I think it did not consist."

b. *Las afectadas   siempre prorrumpen.
the affected-FEM-PL always break
"The affected (persons) always break."

(4) a. —¿*Discrepa* ese artículo de tus   puntos de vista?
disagrees that article of your points of view
"Does that article disagree with your points of view?"

—*No,*   creo   que no discrepa.
no, *pro* think-1SG that not disagree
"No, I think it does not disagree."

b. *Las   personas tímidas siempre prescinden.*
the-PL persons shy   always dispense
"Shy people always do without."

The sentences in which the verbs in (1) appear reveal further that no uniform thematic pattern underlies them: their subjects can be either animate or abstract NP's. The relationship established between the arguments of these verbs and their predicates is idiosyncratic to such a degree that in cases like *abogar por* "advocate (for)", *estribar en* "to be based on" or *prorrumpir en* "break into" it would even be possible to exhaustively enumerate the list of potential subjects of the verb and arguments of the prepositions. In contrast, the verbs in (2) can be straightforwardly characterized as agentive — if we assume an extended notion of Agent as the entity which is the direct producer of the action, irrespective of its animate, inanimate, volitional or non-volitional character.

Although the differences in this regard are not as clear-cut as in the preceding cases, with the verbs in (1) only a specific preposition can appear. In other words, we cannot talk in this case of a natural class of prepositions capable of being selected for a given argument (as is usual, for instance, with three-argument verbs like *guardar* "keep", which can select *en* "in" as well as *dentro* "within" or *debajo de* "below", etc.), but of specific or quasi-idiomatic prepositions. The prepositions in (2) are also quite restricted but they differ in two significant respects from those in (1). First, there are typically two prepositions occurring in these contexts: *de* "of" and *a* "to". Second, in certain cases (such as *abusar (de)*, or *prescindir (de)*, *renunciar a*, or *resistir a*), there exists a variant of the same predicate without a preposition.

2.2 *Dethematized and thematic subject positions*

I believe these external differences are not fortuitous but should be connected to another important property in relation to which both groups appear to diverge. As is well known, phrases appearing in the "subject" position at S-structure can be external since they appear in D-structure but they can also be there in a derived way, having been moved to this position as an instance of "Move NP". Following Burzio (1981 and 1986), the difference between these two types is attributed to the fact that verbs cannot always assign a thematic role to the subject position. By Burzio's generalization, only verbs which assign Case to their internal argument assign a thematic role to the external position. We will come back to this generalization in section 4.
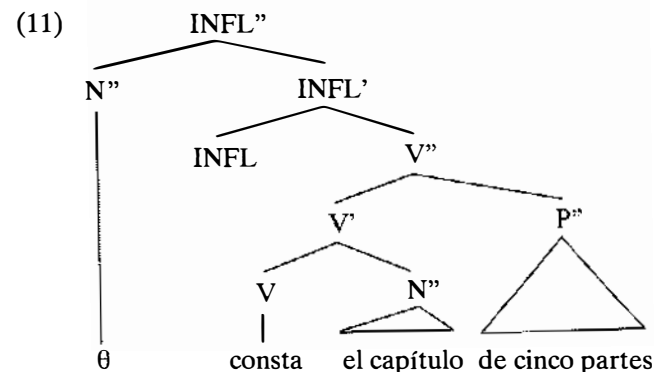
Belletti & Rizzi (1988), in their work on psychological verbs, propose certain tests or diagnostic procedures to distinguish between deep and derived subjects in Romance languages. Consider the behavior of sentences in (1) and (2) with respect to these tests. Sentences in (1) exhibit the typical behavior of sentences with derived subjects: they do not allow a third person *pro* with arbitrary interpretation (see (5) and recall that **arb** interpretation is licensed by theta marking), their surface subject cannot be embedded in a causative structure (cf. (6); Burzio (1981) shows that only deep subjects appear to admit this embbeding), and they cannot form an impersonal-**se** sentence with existential interpretation, (see (7) and recall that *se*, in theses cases, is an argument (cf.Cinque 1988) and it will only be possible in those contexts where an external theta role is assigned). The sentences in (2), however, do not reject these structures, as the examples in (8), (9) and (10) show:

(5) a. *Ayer,   pro han abundado en improperios.*
yesterday *pro* have abounded in insults
"Yesterday *arb* have abounded in insults."

b. *Aquí, pro prorrumpieron en sollozos.*
here *pro* have-broken   in sobs
"Here, *arb* have broken into tears."

(6) a. *Esto ha hecho a los niños   abundar   más en las*
this has made to the children to-abound more in the
malas costumbres dietéticas.
bad   habits   dietetic
"This has caused the children to abound in bad dietetic habits."

b. *Esas concesiones han hecho adolecer de múltiples
these concessions have made to-suffer from multiple
defectos a los empleados.
defects to the employees
"These concessions have made the employees suffer from
multiple defects."

(7) a. *El año pasado se   prorrumpió en sollozos.
the year past   CL-IMP broke   in sobs
"Last year (some)one broke into tears."

b. *En la playa se   abundó   en improperios.
at the beach CL-IMP abounded in insults
"At the beach (some)one abounded in insults."

(8) a. Aquí, **pro** abusan   de los empleados.
here pro exploit-3PL of the employees
"Here, arb exploit the employees."

b. En este país,   **pro** insisten en ser   maleducados.
in this country pro insist-3PL on being badly-behaved
"In this country arb insist on being badly behaved."

(9) a. Esa disposición hizo al   jefe abusar   más de
that order   made to-the chief to-exploit more of
sus empleados.
his employees
"That order made the chief exploit his employees more."

b. La aparición   del   alcalde hizo a los
the showing-up of-the mayor made to the
manifestantes insistir más en sus   propuestas.
marchers   to-insist more on their proposals
"The mayor's showing up made the marchers insist more on
their demands."

(10) a. El año pasado *se*   abusó   de nuestra buena
the year past   CL-IMP exploited of our   good
voluntad.
disposition
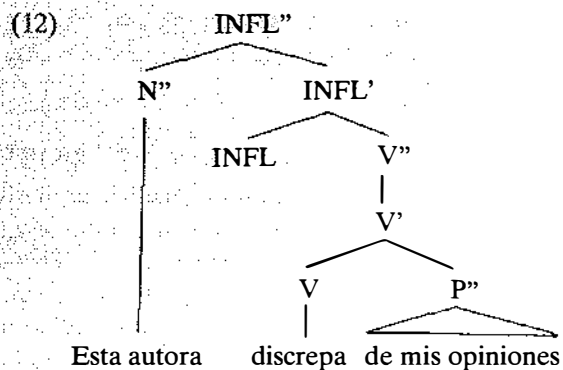"Last year one took advantage of our positive disposition."

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b. Ayer   se   insistió en la importancia de la
yesterday CL-IMP insisted on the importance of the
concertación.
agreement
"Yesterday one insisted on the importance of agreement."

If this distinction is correct, and if we adopt the null hypothesis, we might want to claim that the sentences in (1) (those with a dethematized subject position) have the underlying structure shown in (11). This is the typical configuration of unaccusative verb sentences (either ergative, existential or psych-verb), where the canonical object position is filled by the Theme and the prepositional argument — whenever it exists — is a kind of second object:

(11)   INFL"
        _____|_____
       N"   INFL'
       | _____|_____
       | INFL   V"
       | _____|_____
       | V'   P"
       | _____|_____   /\
       V   V   N"   /   \
       | | / \   /   \
       θ   consta el capítulo de cinco partes

Following familiar assumptions, we might also assert that in (11) the internal direct argument, the Theme, will move to the external position to receive nominative Case because the verb is not a structural case assigner, while the second argument will receive the inherent Case assigned by the preposition.

As for the sentences in (2), we might assume that their underlying structure is the one in (12), i.e. the typical structure of accusative verbs, except that the internal argument is governed by a preposition:

(12)

```
                INFL"
              /      \
           N"        INFL'
           |        /    \
           |     INFL     V"
           |      |       |
           |             V'
           |            /  \
           |          V     P"
           |          |    / \
        Esta autora  discrepa de mis opiniones
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We will see in the following sections that there are independent princi-pled reasons to account for the properties of the two constructions under consideration by means of different structures. In section 3, I will examine two alternative configurations which appear to account for the sentences in class (1) and I will claim that those verbs select a predicative small clause as their internal argument. In section 4, I will show that the verbs in class (2) are instances of accusative verbs although sometimes there appears a prep-osition preceding the internal argument. I will contend that this preposition merely realizes a verbal case and is not the head of a PP projection. In sec-tion 5, the implications of these analyses for the theory of linking will be considered.

3. Sentences with a non-thematic subject position: two possible analyses

3.1 *Unaccusative verbs which do not assign a partitive case*

If (11) were a correct representation of the sentences in (1), we should expect these verbs to be able to assign Partitive Case, as seems to be the case with standard unaccusative verbs, namely ergative and existential verbs like those in (13) (cf. Belletti 1988):

(13) a. *Ayer   llegaron amigos de   Buenos Aires.*
        Yesterday arrived friends from Buenos Aires
        "Yesterday friends from Buenos Aires arrived."

   b. *Hay   ruidos en la   escalera.*
        EXIST.VERB-SG noises at the staircase
        "There are noises at the staircase."

However, if indefiniteness is the overt realization of Partitive Case, as Belletti claims, the facts in (14) suggest that the structures in (1) do not pat-tern together with ergative and existential verbs:

(14) a. **Consistieron reuniones en encierros.*
        consisted   meetings in confinements
        "There consisted meetings in confinements."

   b. **Prorrumpieron (unas) afectadas   en sollozos.*
        broke   some affected-FEM in sobs
        "There broke (some) affected (persons) into tears."

Binding effects provide also crucial evidence against the assumption that the non-thematic-subject verbs of (1) project the D-structure charac-teristic of unaccusative verbs. Observe in (15) that anaphors of the derived subject can be bound inside the PP and pronominals have to be disjoint in reference:

(15) a. *Una persona$_i$ tan poco distanciada en sus juicios adolece sobre todo de sí misma$_i$/de ella$_{*i/x}$*
        "A person so subjective in his/her judgments suffers mainly from himself-herself/him-her."

   b. *María$_i$ depende sobre todo de sí misma$_i$/de ella$_{*i/x}$*
   "María depends basically on herself/her."

It has been widely argued (cf. Giorgi (1986) and Chomsky (1986a) among others) that the notion of c-command relevant for Binding Theory is the strict or branching notion of c-command first postulated by Reinhart (1976)[4] It has also been convincingly proven, on the basis of considerable empirical evidence,[5] that Principle A of the Binding Theory is a kind of 'anywhere' principle which should apply whenever a right configuration of antecedent-anaphor is met (at D-structure, at S-structure or at LF). Taking these two assumptions together, one can explain why sentences headed by psychological verbs like *preoccupare* can have anaphors within the derived subject, as in (16):

(16) *Questi pettegolezzi su di se preoccupano Gianni più di ogni altra cosa.* (From Belletti and Rizzi, 1988:312)
    "These pieces of gossip about himself worry Gianni more than anything else."

The explanation runs as follows: if (11) is the correct D-structure representation for psychological verbs and if principle A can apply at D-structure, the presence of the anaphor in the subject of (16) is predicted: actually, in (16), **se** will be strictly c-commanded by **Gianni** at D-structure. Now, this very reasoning leads us to the conclusion that (11) cannot be the correct D-structure representation for the sentences in (15) — similar to those in (1). In fact, if (11) were their correct representation, the anaphor would not be strictly c-commanded at the level at which principle A can apply. Interestingly enough, moreover, sentences like (1) do not accept anaphors in the derived subject (examples are difficult to construct and the following one has to be understood in a very metaphorical sense):

(17)   * *Esa imagen de sí misma$_i$ redundó en María$_i$*
         "This description of herself redounded in María."

In sum, the subjects of the unaccusative verbs of (1) cannot be assigned partitive Case, and these structures do not allow anaphors in positions in which they should be c-commanded if the Theme argument were generated as a sister of V, but they do allow anaphors within the PP argument. These three properties taken together consistently lead to the conclusion that (11) is not the D-structure representation of the sentences in (1). In fact, there exist two possible representations — those in (18) and (19) — which correctly predict both the binding effects of (15) as well as the fact that the Theme argument cannot be assigned partitive Case:

(18)

(19)
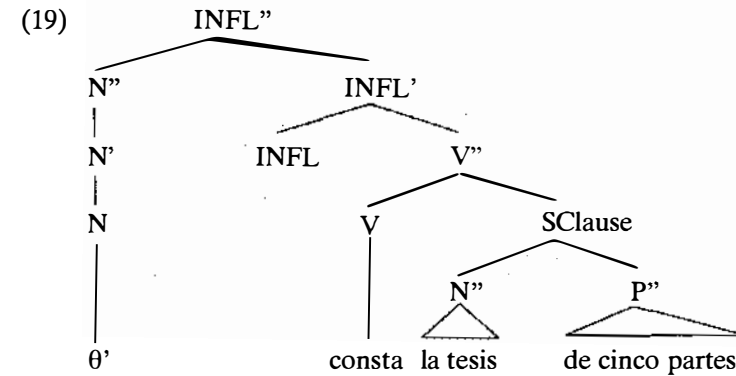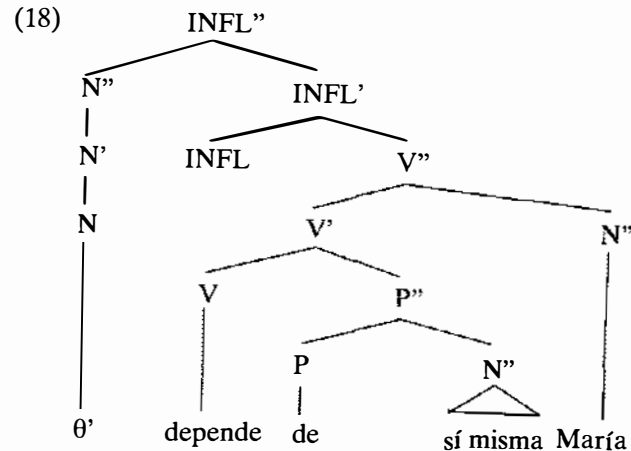
In (18) the hierarchical relations between the two internal arguments are inverted with respect to (11) and the PP argument is now c-commanded by the Theme argument. Intuitively, this representation can be taken to adequately represent the fact that in these sentences the verb and its supposedly subcategorized PP are intimately linked from a semantic point of view. In (19), it is claimed that the constituent that will become external at S-structure is in fact the subject of a predicative small clause at D-structure. This small clause is headed by a PP.

The remaining part of section 3 will be devoted to trying to make a principled choice between constituent structures (18) and (19) which, at first sight, predict in a similar way certain characteristic properties of the sentences under consideration. To make a correct choice, now, I have to go into other aspects of the constructions we are dealing with and explore the theoretical and empirical consequences of both proposals.

3.2 Other differences between class (1) and class (2)

Let us come back now to a comparison of the behavior of the preposition in sentences of classes (1) and (2) which will help us to evaluate the competing hypotheses.

3.2.1 The facts about conjunction

In conjoined structures, the preposition of the sentences in (1) can be skipped, while the second type of prepositions cannot:

(20) a. *La mujer prorrumpió en fuertes sollozos y Ø violentas patadas.*
"The women broke into harsh sobs and violent kicks."

b. *La tesis versa sobre el populismo y Ø el nacionalismo.*
"The thesis deals with populism and nationalism."

(21) a. ??*La universidad prescindió de sus servicios y Ø su aportación valiosa.*
"The university dispensed with his/her services and his/her valuable help."

b. ??*El nuevo texto incurre en los mismos defectos e Ø idénticos despropósitos.*
"The new text incurs the same defects and identical exaggerations."

As is well known, the conjunction environment has been used by many authors to test the behavior of true prepositions compared to that of false prepositions or mere Case markers, the implication of this test being (see Vergnaud (1974), Jaeggli (1982) and Demonte (1987)) that true prepositions (those which assign Case and theta role) can be omitted, while those which are mere Case markers cannot. As far as I can tell, the underlying reason for this behavior has never been put forward.

This property, moreover, should be jointly examined with that illustrated through examples (3) and (4) above. Actually, the prepositions corresponding to PP's which cannot be omitted in single sentences are those which may be absent in conjunction structures. Those of the PP's which are omissible in single sentences cannot disappear when the complements are conjoined. I will soon provide an explanation for this apparent paradox, but let me simply say now that these facts suggest that both kinds of complements diverge thematically as well as categorially.

3.2.2 *The facts about extraction*

More evidence showing that the two kinds of prepositional phrases that we are considering cannot be seen as equivalent from a syntactic point of view is the fact that the PP's in (1) cannot be extracted out of Wh-islands while those in (2) can. Compare (22) to (23).

(22) a. *¿*En qué no sabes si consistió la reunión?*
"Of what don't (you) know whether the meeting consisted?"

b. *¿*De qué enfermedad no sabes si María adolece?*
"From what illness don't (you) know whether María suffers?"

(23) a. *¿De qué no sabes si tu hijo discrepa?*
"With what don't (you) know whether your son disagrees?"

b. *¿Sobre qué no sabes si Pepe influirá?*
"Over what don't (you) know whether Pepe will have influence?"

Now, both kinds of PP can be moved out of that-sentences, as can be seen from (24) and (25):

(24) a. *¿En qué   me   dijiste que consistió el   examen?*
in what *pro* CL-1P-IO said-2P that consisted the exam
"Of what did you tell me that the exam consisted?"

b. *¿De qué partes   me   dijiste que*
of what parts *pro* CL-1P-IO   said-2P that
consta   el   libro?
is-made-up the book
"Of what parts did you tell me that the book is made up?"

(25) a. *De qué autor   me   dijiste que discrepabas?*
with what author *pro* CL-1P-IO said-2P that disagreed
"With what author did you tell me that you disagreed?"

b. *De qué cosas   me   dijiste que prescindirá*
with what things *pro* CL-1P-IO said-2P that will-dispense
el   almacén?
the store
"With what things did you tell me that the store will dispense?"

In sum, class (1) of prepositional verbs gives rise to what looks like an ECP violation insofar as sentences in which they are extracted out of an island headed by a +WH element are clearly ungrammatical. In fact, what the sentences in (22) show is that the PP's in unthematic subject sentences have the typical behavior of adjuncts, although they appear to be subcategorized constituents. In contrast with them, the subcategorized P+NP constituents of the second set of prepositional verbs act as expected and can be submitted to both short and long wh-movement.

In looking for an explanation for the adjunct behavior of the PP constituent in sentences of class (1), I will rely first on the D-structure representation proposed in (18). I will consider the explanatory power of this representation as well as its shortcomings.

3.3 *Adjunct behavior and the hypothesis of preposition incorporation*

If we adopt (18) as the underlying structure of the sentences in (1) we will not be able to account for the adjunct behavior of the subcategorized PP unless we assume that, given this structure, other processes are triggered from which the unexpected properties follow. Let us start by exploring the content and the consequences of the hypothesis that the prepositions of subcategorized PP's in structures like those in (18) are submitted to a process of preposition incorporation (along the lines of Baker (1988)[6]), and that this process of incorporation can explain the adjunct-like behavior of such a constituent.

Under the hypothesis that in sentences like (1) (D-structure=(18)) the preposition of the argument PP becomes incorporated into the governing V, the underlying structure (18) will yield the derived structure (26), where t is the trace of the preposition:[7]

(26)
INFL"
N"
INFL'
INFL
V"
V'
V*
P"
P'
V
P_i t_j
N"
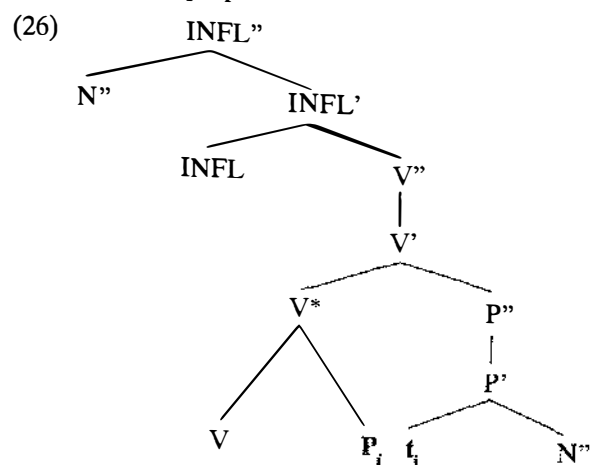
3.3.1 *V Raising to INFL, V' reanalysis and adjunct behavior*

The crucial question for the matter at hand is: What evidence do we have that this process has occurred in sentences like (1), (22) and (24)? In fact, a

first consequence of such a hypothesis would be that the NP will be able to move by itself (or to stay stranded from the complex V+P) but that the PP will not. The first consequence obviously does not hold, but this result could be explained under the assumption that such an NP is not a derived direct object (see note 7): in the formation of the complex verb no transitive verb takes part which would be able to assign structural Case. It is also significant that, as previously mentioned, the PP to which the incorporated P belongs at D-structure can move out after incorporation — actually, this PP can move as if it were an adjunct, as we have shown through the contrast between sentences (22) and (24) above, and as is confirmed by the observation that Topicalization is grammatical with the sentences in (1) (see (27)):

(27) a.   *En lágrimas abundaron las mujeres, no en improperios.*
           "In tears the women abounded, not in insults."

      b.   *En beneficios morales redundará el acuerdo, no en mejoras económicas.*
           "In moral benefits the agreement will redound, not in economic improvement."

To derive this behavior under movement I have to postulate that, as a consequence of incorporation, a parallel process has affected our PI structures in (26). It is by now generally assumed that a core case of X^0 movement is that of verb to INFL in tensed sentences, where it receives tense and agreement information.[8] It is also generally assumed, moreover, that the element which adjoins (by raising) to the INFL node is the head verb alone. Let us suppose now, along the lines of Larson (1988a), that in structures like (26), where preposition incorporation has taken place, the V' projection — by virtue of a V' reanalysis process[9] — becomes V and that it is this reanalyzed V' constituent that has to raise to the INFL node yielding a structure like (28):

(28)
INFL"
N"
INFL'
INFL
V"
V_x
INFL $V' \rightarrow V$
$V+P_i$ $t_i+N"$
t_x
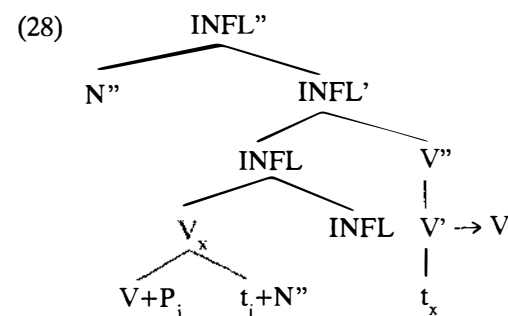
Although certain empirical properties of the structures under consider-
ation appear to follow from this double process, there are, I believe, princi-
pled reasons to reject such an analysis. Let us consider the two questions
just mentioned.

3.3.1.1 *VP-adverbs*

Empirical motivation for the previous analysis appears to be provided by
the acceptability of sentences like those in (1) when they contain a VP-
adverb. Compare the sentences in (29) to those in (30). In (29), where sen-
tences corresponding to the paradigm in (1) appear, the results are com-
pletely natural when the VP-adverb appears either preceding or following
the sequence V+P+N", but their markedness increases when the adverbial
is inside this sequence. In other words, the lightly marked status of sen-
tences (c) in (29) and (30) is presumably to be attributed to the fact that in
these cases the requirement of V' reanalysis prior to V movement to INFL
has not been satisfied:

(29) a.   *El periódico a menudo abunda en malas noticias.*
           "The newspaper frequently abounds in bad news."
      b.   *El periódico abunda en malas noticias a menudo.*
           "The newspaper abounds in bad news frequently."
      c.   ?*El periódico abunda a menudo en malas noticias.*
           "The newspaper abounds frequently in bad news."[10]

(30) a.   *Las tesis frecuentemente constan de cinco partes.*
           "Theses frequently are made up of five parts."
      b.   *Las tesis constan de cinco partes frecuentemente.*
           "Theses are made up of five parts frequently."
      c.   ?*Las tesis constan frecuentemente de cinco partes.*
           "Theses are made up frequently of five parts."

For a better understanding of the facts about (29) and (30) these sen-
tences should be compared to parallel structures with verbs of the class in
(2), namely, those in which a process of preposition incorporation and con-
sequent V' raising is not supposed to have taken place. In these sentences,
the best order is the one which follows from the assumption that, as usual,
the bare verb moves to INFL:

(31) a.   ?*Juan a menudo incurre en despropósitos.*
           "Juan frequently incurs (in) faults."

      b.   *Juan incurre a menudo en despropósitos.*
           "Juan incurs frequently (in) faults."
      c.   ?*Juan incurre en despropósitos a menudo.*
           "Juan incurs (in) faults frequently."[11]

3.3.1.2 *VP-fronting*

As we have said, it appears that if (28) is the derived structure correspond-
ing to the sentences in (1) after they satisfy the obligatory movement of the
V' to INFL, the adjunct-like behavior of the PP's in those sentences could
be accounted for. Note that this V' movement places the sequence
V+P+NP in an A' position and, consequently, it has become an adjunct
constituent.

Now, as has been generally observed in the literature, traces of adjuncts
or elements not governed by a θ-assigner, should meet the requirement
of being antecedent-governed. It is for this reason that wh-islands are
the typical configurations where extractions of adjuncts are ruled out by the
ECP. Notice now that the sentences for which we have postulated V' move-
ment after PI (preposition incorporation) not only do not allow the ques-
tioning of the PP — recall (22), a representative of the paradigm repeated
in (32) — with these structures it is also impossible to have a fronted VP
taken from inside a Wh-island, as suggested by (33):

(32) a. *¿*En qué no sabes si consistió la reunión?*
      b. *¿*De qué enfermedad no sabes si María adolece?*

(33) a. *[Adoleciendo de   muchos defectos]   me
          Suffering   from many   defects pro CL-1SG-IO
          pregunto [quién no está e]
          ask   who not is
          "Suffering from many defects I wonder who is not."

      b. *[Versando sobre temas   absurdos] me   pregunto
          treating   about themes absurd   CL-1SG-IO ask
          [qué   tesis   está e]
          what thesis is
          "Dealing with silly topics I wonder which thesis is."

It has to be noted, moreover, that VP fronting out of a similar island is
totally grammatical in Spanish sentences corresponding to the paradigm in
(2), as shown in (34):

(34) a. [*Abusando de sus   empleados*] *me   pregunto*
         exploiting of his/her employess CL-1SG-IO (I) ask
         [*quién está* e]
         who   is

   b. [*Incurriendo en errores*] *me   pregunto* [*qué*
       incurring   in mistakes CL-1SG-IO (I) ask   which
       persona no está e]
       person not is

The contrasts are clear and point a possible ECP violation. In fact, taking the formulation of the ECP given in (35) and the definition of antecedent government in (36), the ill-formedness of (33) could be attributed to the fact that the potential governors *quién* and *qué tesis* in the embedded S block antecedent government by the head of the A' chain located in the upper COMP. Similar considerations apply with respect to the reasons for the ungrammaticality of the sentences in (22) (=(32).

(35) ECP: a non-pronominal empty category must be (i) lexically governed, or (ii) antecedent-governed.

(36) Antecedent government: X antecedent governs Y iff
      (i)   X and Y are coindexed
      (ii) X c-commands Y
      (iii) no barrier intervenes
      (iv) relativized minimality is respected.(Rizzi, 1990:6)

3.3.2 *Shortcomings of the incorporation-reanalysis proposal*

Besides their *a priori* appealing features, there are both empirical and conceptual problems which make the preceding analysis untenable.

The first empirical question was mentioned above: there are no external manifestations that such an incorporation has taken place, a fact which is not to be expected since usually incorporation in Spanish is not of an abstract nature. We can simply think of certain examples of preposition incorporation which give rise to complex verbs like *anteponer* "prepose" as in *Juan puso el diccionario (del)ante (de) el texto* "Juan put the dictionary before the text" vs. *Juan antepuso el diccionario al texto* " Juan preposed the dictionary to the text". In cases like this, not only do the verb and the preposition fuse as expected to originate a complex verb, but now they also jointly assign dative Case to the stranded NP, as the complex verb assigns

accusative Case to the oblique object in applicative constructions (see note 7).[12]

Secondly, if incorporation is needed to motivate the reanalysis process (recall note 9), we have to postulate a sort of cyclical application of the processes which create single predicates out of a series of constituents. Similar situations do not arise in languages where incorporation is a normal procedure to form derived predicates.

Finally, the incorporation analysis makes wrong predictions with regard to possible sentences with class (1) prepositional verbs where movement of the PP has taken place. Observe that if structure (28) is correct, the extraction of a PP from within an adjunct will involve also a violation of the Condition on Extraction Domains (Huang (1982)) or, in more recent frameworks, a Subjacency violation. Since adjuncts are non-L-marked constituents, hence inherent barriers capable of transmitting barrierhood, the extraction of any of their internal constituents automatically implies the crossing of two or more barriers. In the case in question, the PP will cross the non-L-marked adjoined V (a reduction of V') in (28) which, moreover, transmits barrierhood to INFL". No extraction at all is expected in sentences like these. However, as we have seen through (22), the PP's in those sentences can be extracted even out of *that*-complement sentences and can also be topicalized, as in (27).

In sum, although attractive because it captures the intuition that the constraint over extractions from within the sentences in paradigm (1) is related to the strong connection which holds between the verb and a supposedly subcategorized PP, there is no way to technically articulate this general idea through an underlying structure like (18).

Let us consider now the alternative proposal represented in (19) above, i.e., the assumption that the verbs in (1) select a small clause whose head or main predicate is precisely the PP. We will see that all the properties which we have been showing up to this point can be neatly accounted for if this representation is assumed. Moreover, other unexpected features of these constructions will also be predicted. But before illustrating the empirical power of this analysis — which clearly makes its choice uncontroversial — we will take up the more problematic question of the thematic *raison d'être* of these small clauses subcategorized by the verbs in (1).

3.4 The subcategorized small clause. Consequences of this analysis

3.4.1 The thematic nature of the subcategorized small clause

Kayne (1984a and 1984b:7) has claimed that certain pairs of supposedly independent constituents can in fact be considered to form a single constituent of two members which has the internal structure of a small clause. The sequence 'direct object + particle' in verb-particle constructions like *John looked [the information up]* and also the sequence 'indirect object + direct object' in transitive verb sentences like *John gave [Mary a book]*, are considered by Kayne similar (at some level of representation) to the classical subcategorized small clause appearing in *Mary considers [John intelligent]*. This assumption is crucial to Kayne's unambiguous path principle, i.e. the idea that ternary branching structures are in general unavailable, as well as to the hypothesis that theta role assignment proceeds under sisterhood with a lexical head (Chomsky (1981: 37-38)). In fact, if this second assumption is correct, in a structure like (18) the Theme argument may not be assigned a theta role (since V'cannot assign a theta role), while in (19) it will receive the theta role assigned by the predicate of the small clause.

The problematic aspect of the present proposal is that the unit formed by the Theme plus the PP argument in sentences like those in (1) (*Prorrumpió [la afectada en sollozos], Consistió [la reunión en un encierro]* or *Pertenece [este libro a María]*) is not semantically equivalent to that of the constituent selected by verbs like *consider* or *believe*, in the sense that the former lacks the propositional value which characterizes the latter. However, not all small clause units have propositional force. Recall sentences like

> (37) *Tiene [el   pelo largo].*
>   Has   the hair long
>   "*pro* is long haired."

The characteristic features of a sentence like (37) are the following: (i) the *prima facie* accusative complement of the verb cannot appear alone with the verb (*tiene el pelo is ungrammatical); in other words, the two constituents are obligatory), (ii) the two elements of the small clause have 'some semantic relation' (in (37) there is an attributive relation, but the relation can also be predicative and have associated with it a specific semantic value), and (iii) the main verb and the predicate of the small clause jointly s-select the argument which is the subject of the subcategorized small clause.

If we concentrate now mainly on property (iii) above, we can qualify the assertion that these types of small clauses are problematic for the theory of s-selection. Actually, we can claim that verbs, the main predicates of the sentence, not only can s-select arguments but can also s-select thematically autonomous units (i.e. predicates), which themselves take an argument subject to satisfy the Predication principle establishing that all predicates must have a subject. It is their being s-selected by the main verb which will explain the first property pointed out about the sentences in (1), namely the fact that their PP constituent can never be suppressed (recall the examples in (3)). This observation amounts also to the conclusion that the prepositions appearing in these structures are not equivalent to those which assign theta-role to an argument of the verb (as might be the case with certain goal and location arguments) perhaps in composition with the main predicate.

If we take the features (i)-(iii) above to be the defining characteristics of subcategorized small clauses, we will not only include in this category the sentences in (1), we will also include many apparently three-argument-taking verbs in which (differing in this sense from regular verbs taking accusative and dative complements) none of the arguments can be missing. I am referring to verbs like those in (38):

> (38) a. *Subordina la necesidad a la virtud.*
>   "*pro* subordinates necessity to virtue."
>   a'. ** Subordina la necesidad.*
>   b. *Asocia la dulzura con la debilidad.*
>   "*pro* associates sweetness with weakness."
>   b'. ** Asocia la dulzura.*

Having justified the thematic nature of the postulated subcategorized small clause, let us go back to those properties of the sentences under consideration which we would like to be explained by this analysis.

3.4.2 Known and unknown properties of the sentences of class (1) and the small clause analysis

I would like to reexamine now each of the empirical characteristics of the sentences in paradigm (1) pointed out above and to show how they can be predicted by the small clause analysis.

(a) The fact that the Theme argument cannot have partitive Case (recall the examples in (15)) follows from the stipulation that partitive is an inherent Case whose assigment is submitted to a "Uniformity Condition".

According to this condition, alpha inherently case-marks beta if and only if alpha also theta-marks beta. This condition will be impossible to satisfy in a structure like (19) since the subject of the small clause will receive theta role from the predicate PP but should be assigned inherent case by the main verb.

(b) The impossibility of having an anaphor in the Theme argument (and, consequently, in the derived subject — recall (17)) will follow from a violation of the strict c-command requirement: the antecedent of the anaphor will be inside a PP and from this position it will not c-command the anaphor. The inverse antecedent-anaphor relation (see (15)) will be entirely legitimate, as expected, since the same branching node dominating N" also dominates P".

(c) The ungrammaticality of the extraction of the PP's out of a wh-island (recall (22)=(32)) derives now from their condition of non-sub-categorized constituents located inside a subcategorized projection. In (22), then, we face a regular ECP violation, since a potential governor blocks antecedent-government of the trace of the PP and the main verb, as usual, does not lexically govern the predicate but merely governs the small clause and its specifier.

Regarding the VP-fronting phenomenon of (33), observe that similar extractions are not possible in other subcategorized small clauses while they are normal when the constituent is formed with a secondary predicate (compare (33'a) with (33'b)):

(33') a.   *Considerando inteligente me   pregunto a quién
            considering intelligent CL-1SG-IO ask   to who
            estás.
            are-2P
            "Considering intelligent I wonder who you are."

       b.   Tomandocaliente me   pregunto qué estás.
            drinking hot   CL-1SG-IO aks   what are-2P

Within the present analysis this ungrammaticality should be attributed to the fact that VP fronting creates a chain in which the trace in the small clause subject position (due to the movement of the underlying subject to the canonical subject position) now c-commands its antecedent but not vice versa.

If we assume the underlying representation (19), no subjacency effect is to be expected. This is important for the comparison with the previous

analysis in terms of incorporation. Since the extraction of the PP, as we have just said, proceeds out of an L-marked constituent, no barrier will be crossed and the trace in COMP will govern the trace of the moved predicate. The grammaticality of the sentences in (24) (extractions out of a *that*-complement sentence) as well as that of those in (27) (topicalized sentences) follows correctly.

(d) The facts about (29) and (30) regarding the effects of interpolation of the VP-adverb between the verb and the PP, however, appear at first sight to derive much more easily from the V' reanalysis hypothesis. The conclusion is not so clear, though. Note, first, that in analyzing (29) and (30) we observed not strong ungrammaticality judgments but light effects of markedness. This consequence is not to be expected if a syntactic merging of two constituents has taken place. Furthermore, in Spanish constructions with subcategorized small clauses the preferred order is V [Predicate Subject] (recall *Considero inteligente a Juan* "*pro*-1S consider Juan intelligent"), an order which some authors (Rouveret and Vergnaud (1980), Longobardi (1985) and Demonte (1988)) have explained by assuming that, perhaps at LF, a thematic reanalysis of the two predicates has taken place. This reanalysis should disallow the presence of any element in between the two merged constituents.

(e) Finally, if the underlying structure of prepositional verbs of class (1) contains a subcategorized small clause as the internal argument of this subclass of unaccusative verbs, then the fact that only this subclass of prepositional verbs cannot have derived nominals (in contrast with subclass (2)) can be explained. Compare the nominals in (39), which correspond to the verbs of class (1), with those of (40), which correspond to the verbs of class (2):

(39) a.   *La consistencia de las reuniones en un encierro.
           the consisting   of the meetings in a confinement
           "The meetings consisting in a confinement."

      b.   *El prorrumpimiento de las afectadas   en sollozos.
           the breaking   of the affected-FPL in sobs
           "The affected persons' breaking into tears"

(40) a.   El abuso   de los jefes de sus empleados.
           the exploiting of the bosses of their employees
           "The bosses' exploiting of their employees."

b. *La   insistencia del   policía   en su afirmación.*
    the insistence of-the policeman on his assertion
    "The policeman's insistence on his assertion."

The preposition incorporation analysis cannot explain this contrast: there is nothing in structure (18) which can block *of* insertion and genitive Case assignment. The non-existence of derived nominals in structures with a subcategorized small clause, as Kayne (1984b) has rightly pointed out, is a regular fact (recall *John's consideration of Bill honest*). The explanation for this absence would be that Genitive Case assignment, this being an inherent Case, cannot take place across a small clause boundary. If this were the case, the Uniformity Condition would be violated since the Case assigner and the theta-role assigner would not coincide.

Summarizing, the small clause projection of the argument structure of verbs of class (1) can account for all the properties which followed from structure (18) and the preposition incorporation analysis and does not have the disadvantages of such a proposal. In addition, it allows us to uncover other unexpected properties. The principled choice that we were looking for appears then to have been found.

4. Prepositions as overt realizations of agreement case in sentences with a thematic subject

In the final section of this study I would like to come back to the subclass of prepositional verbs illustrated with the examples in (2) for which I tentatively propose the underlying structure (12).

4.1 *Prepositional verbs and Burzio's generalization*

If (12) is the correct D-structure representation for the prepositional verb sentences with a thematic subject position, it could be claimed that, in these cases, we are concerned with a construction where the argument governed by the preposition receives inherent Case from the preposition. Recall that inherent Case, in contrast with its structural counterpart, is a "thematic" Case whose assignment is subject to a "Uniformity Condition" (see section 3.4 above), any lexical head being able to assign inherent Case. More explicitly, given that those PP's are semantically selected by the verb and given that the prepositions can be considered the canonical realization of the thematic relation that the argument establishes with the verb, we may

be led to think that the preposition theta-marks the NP and, consequently, Case-marks it to make the thematic relation visible.

Now, if this were true, sentences (2) (those with a thematic D-structure subject in (12)) would appear to contradict Burzio's generalization, since a two-argument verb not assigning structural case to its complement does assign an external theta role.[13] A short digression will show why this is so.

In (41a) and (41b) we have two versions of Burzio's generalization, (41a) being the original one, (41b) the reformulation given in Belletti's (1988) work on partitive inherent Case. (Recall that Belletti (1988) has to formulate (41b) as a statement about **structural** Case in order to capture Burzio's generalization in the face of the apparent counterevidence provided by unaccusative verbs, which do not theta mark their external position but do **inherently** Case-mark their complements.)

(41) a. V Case-marks its complement iff it assigns an external theta role.

b. V **structurally** Case-marks its complement iff it assigns an external theta role.

Given the statements in (41), we can assume that with the features [+/ − θ subject] and [+/−structural Case] it is possible to characterize the class of possible verbs, provided we add the qualification that [−structural Case] divides into ∅ or no Case and Inherent Case. With these two assumptions taken together, we can establish the classification in (42):

(42) (i)   [+ θ subject, +str. Case] : **Accusative verbs** like *eat*.

(ii) [− θ subject, -str. Case] : **Unaccusative verbs** which assign an Inherent partitive Case like It. *arrivare*, or unaccusative verbs which assign ∅ Case like *abundar en*, above.

(iii) [+ θ subject, -str.Case]: **Unergative verbs** with one external argument and no internal argument like *swim*.

(iv) [− θ subject, +str. Case]: *.i.e. the class precluded by Burzio-Belleti's generalization.

If we consider (42) to be a correct statement about the set of possible verbs in natural languages, then the class of our verbs in (2), with members like *abusar (de)* or *incurrir (en)*, appears to be an atypical or mixed one insofar as it shares properties of two of the above subclasses: like accusative and unergative verbs it assigns a theta-role to the external position, but it differs from the former in that it does not assign Case to its internal argu-

ment, and differs from the latter in that it does take two arguments. It would then seem that these verbs can be more appropriately characterized as unergatives, although they share with accusative verbs the property of s-selecting an internal argument.

Summarizing and returning to the core of our discussion, the sentences in (2) together with the analysis in (12) and the assumption that the preposition inherently Case-marks the argument NP would be at odds with the predictions of (41). However, a more careful look at the data suggests otherwise. It is indeed not obvious that the structure that we are considering corresponds to a configuration where an inherent Case is assigned by a preposition, nor is it obvious that it includes true prepositional phrases. Let us revise now some of the considerations made in the preceding sections regarding this subclass of prepositional verbs and try to exhaust their analysis.

4.2 *External differences*

I have been suggesting in the preceding sections that the putative PP's of the subclass of sentences in (2) have a set of external properties which clearly distinguishes them from the regular PP's that we have been discussing up to this point. Let us review these properties since we will capitalize on them in the rest of this paper.

4.2.1 *Argumenthood*

We have observed, firstly, that they behave as true arguments and, as such, they can move out of Wh-islands (see (23)), and they can topicalize (see (27)). Again, like direct internal arguments they can be absent or null in sentences with a generic time reference:[14]

(43) a.   *No debes   abusar   si quieres   ser   respetado.*
           not should-2sg to-exploit if want-2sg to-be respected
           "You should not exploit (others) if you want to be respected."

(cf.   ??*Juan abusó   para poder   irse.*)
           Juan exploited for   to-be-able to-leave
           "Juan exploited in order to be able to leave."

      b.   *Con el   exceso de alcohol Juan alardea muchísimo.*
           with the excess of alcohol Juan brags   a-lot
           "With too much alcohol Juan brags a lot."

           ??*Juan alardeó después de beber.*
           Juan bragged after   of to-drink
           "Juan bragged after drinking."

Observe that, in similar conditions and in constrast with the preceding ones, the PP's which we have characterized as predicates heading a subcategorized small clause can never be null:

(44) a.   *No se   debe   adolecer si se   quiere ser   amado.*
           not CL-IMP should to-suffer if CL-IMP wants to-be loved
           "One should not suffer (from) if one wants to be loved."

      b.   *Con el exceso de alcohol Juan suele abundar mucho.*
           "With too much alcohol Juan usually abounds a lot."

Finally, as we noted above in 3.2.1 (examples (21)) the preposition in these PP's cannot be omitted in conjoined structures, contrasting again in this sense with those in the other subset. I repeat the relevant examples in (45):

(45) a.   (=21a) ??*La universidad prescindirá de sus servicios y Ø su aportación valiosa.*
           "The university will dispense with his/her services and his/her valuable help."

      b.   (=20a) *La mujer prorrumpió en fuertes sollozos y Ø violentas patadas.*
           "The women broke into harsh sobs and violents kicks."

The explanation for these and other properties of the sentences under consideration follows from the assumption that in these cases we are confronted with a realization of a prepositional accusative Case, where 'prepositional accusative' is no more than a convenient name intended to convey a basic intuition but does not imply that we are (or are not) dealing with a true preposition. Prepositional accusative is an instance of structural Case and the preposition appearing in such a construction is simply the overt realization of a Case by agreement, this being the general form of structural Case. Besides this, I want to contend that the realization of Case as a prepositional accusative is determined by the aspectual content of the verb. More strictly, this explicit mark of Case on the internal arguments is aspectually determined. I will try to justify, in the first place, the aspectual nature of these prepositions, and then I will characterize the configuration in which this type of case by agreement is assigned. The conjectures that I will put forward in the following pages are still of a rather speculative nature.

4.3 The aspectual nature of certain prepositions

Following the programmatic approach to the role of Aspect in the grammar proposed by Tenny (1987 and 1988), I will assume that the mapping between cognitive (thematic) structure and syntactic argument structure is governed by aspectual properties. Tenny's idea (which originates in a long philosophical and semantic tradition) is that Aspect is closely associated with time and that it refers to the internal temporal organization of events, which can themselves be distinguished in terms of the aspectual property of **delimitedness**. Furthermore, according to Tenny, "the crucial aspectual property is associated with the direct internal argument" (Tenny (1988:3)) in the sense that the internal argument 'measures out' over time the action described by the verb. We might carry this proposal a step further and conjecture that all kinds of internal arguments are associated with the way the action is measured out.

This distinction between delimited and non-delimited events manifests itself in linguistic structure in different ways. It can be, in the first place, a mere lexical distinction (what traditional grammarians have called the **Aktionsart**) insofar as verbs refer to actions which are delimited or 'perfective' (like *disparar* "to shoot" or *matar* "to kill") because their performance implies the end of the event, or to non-delimited or 'imperfective' actions (like *soñar* "to dream" or *pensar* "to think").[15] Moreover, in certain languages (of which Spanish is an example), this aspectual difference is associated also with the structure of the system of tenses. Spanish differentiates between two past tenses, one of which is imperfective (*pensaba, moría*) and the other perfective (*pensó, murió*),[16] where the latter roughly corresponds to the English past. Obviously, the aspectual difference can also be expressed through different adverbs or adverbial phrases which fix the temporal limits of the event: adverbials like *en media hora* "in half an hour" are compatible with events which have a time limit while *durante una hora* "for an hour" distinguishes a non-delimited reading. In fact, the following sentences show that a perfective verb is compatible with a perfective or delimited past and that it cooccurs only with a delimiting adverbial expression (see (46a)); the same verb in an imperfective past is ungrammatical irrespective of the adverb present in the sentence (see (46b)).[17] In contrast, imperfective or non-delimited events are only possible with non-delimiting adverbials (see (47)):

(46) a. *El terremoto destruyó* (**perfective past**) *la ciudad en una hora / *durante una hora*.
          "The earthquake destroyed the city in an hour / for an hour."
      b. *El terremoto destruía la ciudad* (**imperfective past**) **en una hora/*durante una hora.*
          "The earthquake was destroying the city in an hour / for an hour."

(47) a. *María admiró el cuadro* (**perfective past**) **en una hora / durante una hora*.
          "María admired the painting in an hour / for an hour."
      b. *María admiraba el cuadro* (**imperfective past**) **en una hora / *durante una hora*.
          "María was admiring the painting in an hour /for an hour."

What the preceding contrasts seem to suggest is that the aspectual content of the verb is, so to speak, stronger than the information of the same order provided by other elements in the sentence. Nevertheless, it would exceed the scope of a paper like this to try to clarify the complex set of questions posed by the facts just mentioned. Interesting for our purposes, however, is the observation made again by Tenny (1987,1988) and Pustejovsky (1988) that in certain cases the presence of the internal argument can delimit a previously non-delimited event. What the contrast in (48) shows is that "to eat" is a process verb which becomes an accomplishment verb when the length of the eating is defined:

(48) a. *Mi hija come muy bien.*
          "My daughter eats very well."
      b. *Mi hija come muy bien las manzanas.*
          "My daughter eats the apples very well."

I now want to carry this idea a step further and assume that sometimes the contrast in delimitedness is expressed through the presence or absence of a preposition, which can then be considered a kind of aspectual feature of the verb specified or copied onto the noun. Empirical evidence for this hypothesis is provided by another semantic class of Spanish verbs. There exists in this language a subset of verbs which allow their propositional complement to appear with or without a preposition:

(49) a.   *José pensó una palabra / en una palabra.*
          "José thought a word/of a word."
     b.   *Irene soñó un elefante / con un elefante.*
          "Irene dreamed an elephant/about an elephant."

Belonging to the class of *pensar/pensar en* are also *hablar/hablar en* "speak in" or *disfrutar/disfrutar de* "enjoy (of)". What is interesting about these verbs is that the argument structure of the verb has to be considered the same in both cases (i.e. the thematic role of the internal argument is always Theme) and that the difference between the prepositional and prepositionless variants in propositional verbs is related to the way the action is conceived. In the first variant of the sentences above (the one without the preposition) the mental Theme object is conceived as a physical entity because the predication focuses on the result of the action. In the second variant (the prepositional one) the predication focuses on the verbal process, be it linguistic, cognitive or psychological. The cooccurrence restrictions affecting these two variants of the above mentioned verbs and perfective and imperfective adverbs corroborate the readings that we have just glossed:

(50) a.   *Irene pensó una palabra * durante toda la tarde / esta tarde.*
          "Irene thought (of) a word all afternoon / this afternoon".
     b.   *Irene pensó en una palabra durante toda la tarde / esta tarde.*
          "Irene thought of a word all afternoon / this afternoon".

What I would like to suggest, therefore, is that the aspectual properties of the predicate verb are projected in the syntactic representation as features adjoined to the internal argument. This association of features can be considered an instance of Case by agreement, if we pursue the suggestion made by Chomsky (1989) that perhaps structural Case is generally correlated with agreement and reflects a government relation between an NP and an appropriate agreement element. In the constructions under analysis the preposition would adjoin to the NP, thus realizing the aspectual features of the head of the Aspect phrase. In this sense the so called preposition will merely be the overt realization of structural Case. I will come back to this issue in section 4.4.

Clear proof that these sentences exhibit structural Case assigned by the verb and not inherent Case assigned by a preposition is provided by the behavior of *pensar en* and *soñar con* when they take a small clause as a complement. (51b) shows that partitive Case cannot be assigned through the

small clause boundary, while nothing prevents the assignment of structural Case (see the grammatical (51a)), which is a non-thematically conditioned Case:

(51) a.   *No puedo pensar en* [*mi hijo como minero*].
          not can-1sg to-think of my son as   miner
          "I cannot conceive of my son as a miner."

     b.   * *No puedo pensar en* [*hijos como mineros*].
          not can-1sg think of sons as   miners
          "I cannot conceive of sons as miners."

With respect to our class (2) of prepositional verbs, there appear to be three kinds of empirical evidence supporting the idea that their preposition is a realization of this aspectual agreement Case. The first kind has to do again with the occurrence of small clauses, the second with alternant forms and their respective readings, and the third with the alternance of these prepositions with other object agreement features.

4.3.1   As we noted in the preceding cases, the prepositional verbs of class (2) do not accept that partitive Case be assigned to the subject of a complement small clause, thus showing that we are confronted with a structural Case assigned by the verb:

(52) a.   *Alardea de*   [*su   hermano en la cúpula del*
          brags   about his/her brother in the top   of-the
          ejército]
          army
          "*pro* brags about his/her brother in the top of the army."

     b.   * *Alardea de* [*hermanos en la cúpula del ejército*]
          "*pro* brags about brothers in the top of the army."

4.3.2   We observed in 2.1 that a considerable subset of the verbs in (2) enter into minimal pairs with a prepositionless variant having the same meaning (recall *renunciar a/renunciar* "to resign (to)", *obedecer a/obedecer* "to obey (to)", *abusar de/abusar* "to abuse (of)" or *resistir a/resistir* " to resist (to)", where the second item is a normal accusative verb). On the other hand, it is also possible to construct minimal pairs formed by a verb of class (2) and a lexical variant with the same meaning which takes a direct internal argument to which it assigns accusative case. Pairs of this second sort are *cometer/incurrir en* or *pelear/pugnar por*. Now if we compare these forms with respect to their possibilities of cooccurrence with the testing per-

fective and imperfective adverbial phrases, we find the same contrasts, as in sentences (50) above:

(53) a. *El presidente renunció su puesto en el noveno congreso/*a lo largo del año.*
"The president resigned his position at the ninth meeting / all the year long.

b. *El presidente renunció a su puesto en el noveno congreso/a lo largo del año.*
"The president resigned (to) his position at the ninth meeeting / all the year long."

(54) a. *Juan cometió una (*misma) falta ?durante todo el examen.*
"Juan committed one (same) fault all during the exam."

b. *Juan incurrió en una misma falta durante todo el examen.*
"Juan incurred (in) the same mistake all during the exam."

What the preceding contrasts show is that the reading associated with the 'perfective past + object' sequence is that of result, i.e., the action is closed after one single realization of it. The otherwise similar examples (53b) and (54b) can have the meaning of an action repeated and completed many times in the same past period.

4.3.3 In many languages pronominal clitics are considered affix-like elements which can be analyzed as expressing Case features of the verb. Recall that Spanish has object clitics and that in certain dialects they stand for all kinds of direct objects, either animate or inanimate (cf. *La*(CL) vi a María 'Pro her saw (to) María' or '*Lo*(CL) tengo el libro 'Pro it have the book'). These clitic doubled structures, furthermore, are in complementary distribution with the constructions that we are considering. In other words, in Spanish clitics do not double these kinds of prepositional complements, even though there are clitics which double indirect objects, which very possibly are non-PP constituents. It is then plausible to conjecture that the system of object agreement is made up of two elements: agreeing clitics (which would be the unmarked way of establishing Case by agreement) and agreeing prepositions (which would be a marked strategy and a restricted alternative).

Let us also observe that in many languages (cf. Croft (1988)) verb agreement with the object and object case marking are sensitive to the animacy or definiteness of the object: "... if there is a contrast between the presence of an agreement marker or a case marker and its absence in the

direct object it is always the more definite and/or more animate direct object which is marked by agreement and case" (Croft (1988:161)). As is well known, animate definite direct objects in Spanish are usually introduced by the preposition *a* as in (55):

(55) *Visité   a mi madre en Paraná.*
visited:1sG to my mother in Paraná
"*pro* visited my mother in Paraná."

What example (55) could suggest is that in Spanish, as in the languages cited by Croft, prepositions can be markers of Case by agreement. However, we will not pursue these matters any further here since they should be the object of an independent study.

4.4 Case by agreement and the projection of tense and aspect

To provide a formalization of the previous intuitions, three questions have to be clarified. One concerns the content of the constituent Aspect (e.g. what kind of features it includes and how lexical aspect combines with morphological aspect) and what its relations are to other functional heads and categories. The second question is that of the general form of the representation in which our aspectual agreement elements are generated. The third is the way the strategy of case-by-agreement assignment works in this structure.

However important the clarification of the first question could be for the whole understanding of my proposal, I will avoid the treatment of these topics at this moment and I will just try to make explicit certain basic aspects of the second and third questions.

Following Pollock (1989), Chomsky (1989) assumes at first that AGR is dominated by T(ense) but he observes that if we consider "these elements to be dissociated one might rather expect AGR to dominate Tense since it presumably stands in a government relation with the subject in tensed clauses" (1989:57). It must be said, certainly, that Spanish provides clear morphological evidence that this is the case: tense affixes are internal to the word which ends up with person and number features:

(56) a. *Com- i— mos; com- e— mos*
V.root past 1PL   V.root pres. 1PL

So if the verb raises successively, it will take first the tense element and then the person-number element.

Chomsky (1989) also notes that for independent reasons there has to be some intermediate projection between Tense and VP which he takes to be the AGR-O (the object agreement element). Other authors have suggested that this node can be the Aspect Phrase; the evidence I have posited above points to the same conclusion. These two considerations taken together lead us to suppose that (57) can be an adequate representation of S:

(57)

AGR-S"

N"   AGR-S'

AGR-S   T(ense)"

Spec   T'

T   ASP"

Spec   ASP'

ASP   V"

V'

V   N"
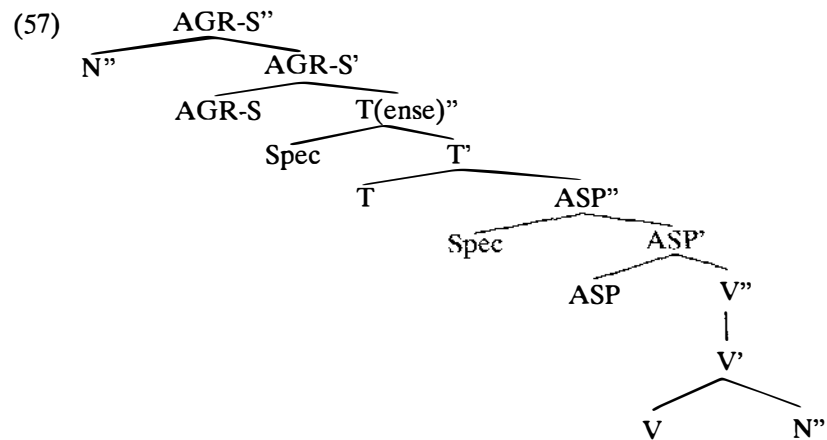
In the recent literature two ways have been conceived in which a governed NP can be marked with an agreement Case: either a governing head coindexes with a governed NP (i.e., it induces certain features to appear in the NP), or coindexation is an instance of Spec-head agreement. In our case, I tend to think that the first possibility is the one which holds. Evidence for this is provided by the facts of conjunction that I have mentioned in 3.2.1 and 4.2 above (see examples (21) and (45)). In fact, I have provided evidence that the so-called preposition is like an affix of the noun insofar as it has to appear with it all the time, as suggested by those facts. If the other possibility were to hold, the preposition would be generated in the head of AspP (as an alternative, for instance, to clitic agreement features). Once the NP is moved to the Spec of AspP,[18] Case will be an instance of Spec-head agreement. However, I do not have clear evidence in favor of this analysis and contrary evidence is provided by the fact that Spanish does not have preposition stranding.

5.   Conclusions

5.1   *Burzio's generalization*

A first corollary of the analysis suggested is that the sentences with a thematic subject and a prepositional complement are not at odds with Burzio's generalization. The gap supposedly appearing in the paradigm provided by the sentences of class (2) will not be such since it will not be the case that a two argument-taking verb with a thematic subject will not assign Case to its internal argument. Rather, given this analysis, the subclass (2) of prepositional verbs patterns together with regular transitive verbs. Finally, given that all forms of structural Case assignment are instances of agreement between a head and a governed element, Burzio's generalization in (41) can be reformulated as in (58):

(58)   'V assigns **agreement Case** to the object iff it assigns an external theta role.'

5.2   *On the relation between linking and Case*

In this paper I have argued for a distinction between two classes of s-selected PP's, both qualifying as internal arguments of the verb. One of them is an s-selected predicate which forms a small clause with the NP that will become the derived subject of the sentence. The other, in spite of its surface appearence, is a direct argument of the verb, theta-governed and case-marked by it. This distinction, furthermore, correlates with a split between non-thematic and thematic subject verbs.

This result, if correct, poses interesting general questions within the theory of argument realization assumed here (essentially that of Chomsky (1986a), following Grimshaw (1979), among others).

Actually, a simple theory of argument realization could be one assuming that syntactic structures are licensed by X-bar theory together with certain principles establishing, first, the order in which the arguments are projected and, second, the mechanics of the linking process: whether they are linked to the external or internal position, for instance, or whether the order of projection implies that the first projected argument should c-command the second, and so on (cf.Larson (1988b) in this regard). These statements about the mechanics of argument linking can make reference not

only to the positioning of a given argument in the internal or the external position, but also to the fact of its being directly or indirectly linked to the main predicate.

Now, what the facts that I have reported appear to suggest is, first, that perhaps the only relevant distinction is that which exists between external and internal arguments and, second, that perhaps all internal arguments are directly linked and there is no such thing as "compositional assignment of a theta-role".

Actually, what the proposal that I have made regarding the argument projection of the prepositional verbs of class (1) amounts to saying is that maybe in most of the cases which have been analyzed as verbs with two internal arguments (one direct and the other prepositional) we are in fact in front of a single predicative argument where the previous PP argument is now the head of this s-selected predication relation. There are two problematic cases for this proposal, as far as I know: double object verbs and psychological verbs. One reason for their problematicity is that in such verbs the underlying asymmetry between the two complements is not totally equivalent, at least at first sight, to the one found in our prepositional structures.[19] The other is that standard analyses of these classes of verbs (Belletti and Rizzi (1988) for psychological verbs) have assumed an underlying structure with one of the arguments as a sister of V'.

Now, we should also recall that a recent proposal (cf. Larson (1988a), who traces back this hypothesis to Chomsky (1955)) has also considered the possibility that the verb constitutes a small predicate with the indirect object. This set will be predicated of an "inner subject" (the actual direct object) forming a VP with a clause-like structure. If this hypothesis is correct, the only remaining problematic case will be that of psychological verbs.

In any case, if the approach we are suggesting proves to be correct, it would imply that the principles guiding the mapping from the lexicon to the syntax are extremely simple insofar as the only relevant distinctions will be those referring to the thematic or non-thematic nature of the external position and, within the first case, to the distinction external-internal, which might follow from the order among arguments and/or the substructure of the event described by the predicate.

Notes

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2. I use *linking* in the sense of Safir (1987) and Grimshaw (1990), among others, as "syntactic realization of the arguments" or "argument association to grammatical functions".

3. Other verbs in class (1) are: *carecer de* "lack of", *abogar por* "advocate for", *irrumpir en* "raid (in)", *dar a* "open on", *salir a* "look like", *sustituir a* "substitute for", *equivaler a* "be equivalent to", etc. In (2), we have *resistir a* "resist (to)", *maldecir de* "damn (of)", *obedecer a* "obey (to)", *depender de* "depend on", *aspirar a* "aspire to", *confiar en* "rely on", *acceder a* "agree (to)", *optar por* "choose (for)", among others.

4. Under this definition "alpha c-commands beta iff (i) neither alpha dominates beta nor beta dominates alpha and (ii) every branching node dominating alpha also dominates beta".

5. See Belletti and Rizzi (1988) and the references cited therein.

6. Assuming Baker's proposals we can characterize syntactic incorporation in the following terms:

    (a) Incorporation is a subcase of the generalized transformation Move-alpha and should be defined as a movement of an X^0 to the next c-commanding Y^0 to obtain proper government of the $X^{\bullet}$ trace, thus satisfing the ECP (**Head Movement Constraint**).

    (b) If the structure resulting from this movement is to satisfy the ECP, an X will be incorporated into Y only if X belongs to a category XP s-selected by Y. The rationale for this is that if this requirement were not satisfied the XP would be an inherent barrier, a **blocking category**, which would block proper government of the trace of X (see Chomsky (1986b:4)).

7. As a matter of fact, however, a consequence of Baker's study of preposition incorporation (its core case being the **applicative** sentences found in many languages) is that a grammatical applicative construction can only occur when the derived verb assigns accusative case to the NP that becomes stranded by the movement of the preposition. To be more explicit, the standard cases of preposition incorporation are those in which an oblique phrase comes to be the direct object of the clause in which it appears, as in example (i) below:

    (i) (Chichewa language, from Baker. 1988:229)

    a. *Mbidzi zi-na-perek-a   msampha kwa nkhandwe*
        zebras sp-past-**hand**-asp trap   to   the fox
        'The zebras handed the trap to the fox'

    b. *Mbidzi zi-na-perek-er-a   nkhandwe msampha*
        zebras sp-past-**hand-to**-asp fox   trap
        'The zebras handed the fox the trap'

After this movement, the stranded NP complement left behind by the incorporated P has to receive Case from the complex verb to satisfy the Visibility Condition. Now, by hypothesis (according to Baker), a verb cannot inherit case-assigning features from a preposition, which is an oblique case assigner; "putting these two statements together," Baker says, "we derive the prediction that applicative constructions should not be possible whenever the verb that hosts the P incorporation is not a case assigner" (Baker (1988:252)).

It can be said, however, that this corollary is not a basic assumption of the theory but a theorem which follows from taking Case principles to be always satisfied at S-structure. Now, if we assume as in recent works (see Chomsky 1986a) that assignment of inherent Case — as opposed to structural Case — takes place at D-structure, Baker's corollary does not logically follow. Actually, given that the prepositions in sentences like (1) are inherent Case assigners, we can assert that they have to assign a thematic Case to their argument PP's at D-structure. Hence, when they incorporate into the verb, the NP governed by a preposition does have a Case and does not need to receive Case from the complex verb.

8.   See Pollock (1989) and Chomsky (1989) and the evidence presented therein.

9.   As in Larson (1988a), we can assume that the motivation for incorporation and further V' reanalysis is the mismatch that appears to exist between Case assignment and theta-marking in the structures that we are considering. Let us take as a point of departure the usual assumption that at D-structure, at the moment of the argument structure projection, the preposition theta-marks the NP and also assigns inherent Case to it; theta-marking taking place compositionally as is usual in structures where a predicate s-selects a PP argument. The verb not being a case assigner (due to its intrinsic properties) and theta-marking being compositional, the preposition has to incorporate into the verb after Inherent Case assigment has taken place to guarantee that the theta-assigners are visible at LF.

An alternative way to explain this situation is to assert that by definition a transitive predicate is that one with one unsaturated internal argument which the predicate theta-marks and to which it assigns structural Case. When the verb — as in the cases that we are considering — is intransitive from the point of view of the Case module but thematically transitive, the case assigner and the theta role assigner have to fuse to overcome the mismatch between the Case and the thematic modules.

Now, given that Inherent Case implies assignment at D-structure but realization at S-structure — and if we assume that traces of V+P do not count for Case realization — the receiver of the inherent Case should stay syntactically linked to the case assigner. i.e. at S-structure the Case-marked constituent should be under **immediate** governing of the Case assigner.

10. The fact that the best of the three preceding sentences is (32a) — namely, that one corresponding to the preferred English order (where the adverb precedes the sequence V+object) — cannot, of course, be interpreted as evidence that in these sentences the INFL lowers to the V (otherwise we would have to assume that the weakness or heaviness of the agreement varies depending on the verb). Presumably, the fact that it is preferred that the adverb precede the V+P+N sequence should be taken as evidence that after V' movement the 'heavy' INFL constituent moves to sentence final position.

11. As Olga Fernández-Soriano has pointed out to me, the preceding contrasts show up even more clearly with infinitive sentences:

(i) a. * *[Abundar a menudo en malas noticias] es algo que caracteriza a este periódico.*
          "To abound frequently in bad news is something that typifies this newspaper."
     b. *[Abundar en malas noticias a menudo] es algo que caracteriza a este periódico.*

(ii) a. *[Abusar con frecuencia de los empleados] es malo para un comerciante independiente.*
          "To abuse frequently (of) the employees is bad for an independent tradesman."
     b. ??*[Abusar de los empleados con frecuencia] es malo para un comerciante independiente.*

12. This situation, in fact, is found in verbs like *traspasar* "to pass over", *entresacar* "to thin out" or *contraponer* "to oppose"; cf. *Pasó un cuchillo a través de la puerta* "pro passed the knife through the door" vs *Traspasó la puerta con un cuchillo* "pro passed over the door with a knife". With these verbs the oblique complement is the one which receives structural accusative Case from the derived verb.

13. Burzio's generalization, which was first established to account for the syntactic properties of Italian unaccusative verbs, was later extended — in the same work by Burzio (1981) and in later works (see Belletti (1988) and Roberts (1987)) — to the analysis of passive and anticausative sentences, to ergative constructions with partitive Case and to other structures with dethematized subjects. To my knowledge it has not yet been investigated to what extent Burzio's generalization can cover verbs which assign Case to their internal arguments through a preposition.

14. I will not discuss here the nature, syntactic status and licensing of this null element (but see Rizzi (1986) in this regard).

15. See Vendler (1967) and Dowty (1979) for a careful classification of verbs in terms of their aspectual properties.

16. An insightful traditional grammarian of Spanish, Andrés Bello (1847) captured this distinction by saying that the imperfective past is a co-past (*co-pretérito*) whereas the perfective is a true past. Bello also tried to relate imperfective (*permanentes*) and perfective (*desinentes*) verbs with the two kinds of past tenses.

17. This contrast clarifies Bello's notion of "co-pretérito" alluded to in footnote 16. Actually, expressions like *El terremoto destruía la ciudad* are grammatical when they cooccur with a sentence which refers to another action simultaneous in the past, e.g. *El terremoto destruía la ciudad cuando nosotros entrábamos en México* "The earthquake was destroying the city while we were entering Mexico".

18. This movement is submitted, as usual, to the Government Transparency Corollary (Baker (1988)). Otherwise we would have a minimal barrier which would block government of the NP direct object.

19. In double object verbs the indirect object appears to be in the structural domain of the direct object (cf. Barss and Lasnik (1986) and Larson (1988a)) while in psychological verbs the non-prepositional complement (later derived subject) is in the domain of the putative prepositional complement (cf. Belletti and Rizzi (1988)).

References

Baker, Mark. 1988. *Incorporation. A Theory of Grammatical Function Changing*. Chicago: The University of Chicago Press.

Barss, Andrew and Howard Lasnik. 1986. "A Note on Anaphora and Double object". *Linguistic Inquiry* 10. 347-354.

Belletti, Adriana. 1988. "The Case of Unaccusatives". *Linguistic Inquiry* 191. 1-34.

Belletti, Adriana and Luigi Rizzi. 1988. "Psych-Verbs and θ-Theory". *Natural Language and Linguistic Theory* 6:3. 291-352.

Bello, Andrés. 1847. *Gramática de la Lengua Castellana destinada al Uso de los Americanos*. Santiago de Chile: Imprenta del Progreso.

Burzio, Luigi. 1981. *Intransitive Verbs and Italian Auxiliaries*. Unpublished Ph.D. dissertation, MIT.

Burzio, Luigi. 1986. *Italian Syntax*. Dordrecht: Reidel.

Chomsky, Noam. 1955/1975. *The Logical Structure of Linguistic Theory*. New York: Plenum Press.

Chomsky, Noam. 1981. *Lectures on Government and Binding*. Dordrecht: Foris.

Chomsky, Noam. 1986a. *Knowledge of Language. Its Nature, Origin and Use*. New York: Pantheon.

Chomsky, Noam. 1986b. *Barriers*. Cambridge, MA: MIT Press.

Chomsky, Noam. 1989. "Some Notes on Economy of Derivation and Representation". *MIT Working Papers in Linguistics* 10. 43-74.

Cinque, Guglielmo. 1988. "On *si* constructions and the theory of *arb*". *Linguistic Inquiry* 19. 521-582.

Croft, William. 1988. "Agreement vs. Case Marking and Direct Objects". *Agreement in Natural Languages* ed. by Michael Barlow and Charles A. Ferguson, 159-180. Stanford: CSLI.

Demonte, Violeta. 1987. "C-Command, Prepositions and Predication". *Linguistic Inquiry* 18:1. 147-157.

Demonte, Violeta. 1988. "Remarks on Secondary Predicates: C-command, Extraction and Reanalysis". *The Linguistic Review* 6. 1-39.

Dowty, David. 1979. *Word Meaning and Montague Grammar*. Dordrecht: Reidel.

Giorgi, Alessandra. 1986. "The Proper Notion of C-Command and the Binding Theory: Evidence from NP's". *Proceedings of the Sixteenth Annual Meeting of North Eastern Linguistic Society*, GLSA ed. by C.

Berman, J. Choe and J. M. Donough. University of Massachusetts, Amherst.

Grimshaw, Jane. 1979. "Complement Selection and the Lexicon". *Linguistic Inquiry* 10:2. 279-326.

Grimshaw, Jane. 1990. *Argument Structure*. Cambridge, MA: MIT Press.

Hale, Ken and Jay Keyser. 1986. "Some Transitivity Alternations in English". *Lexicon Project Working Papers* 7. Cambridge, MA: Center for Cognitive Science at MIT.

Huang, Cheng-Teh J. 1982. *Logical Relations in Chinese and the Theory of Grammar*. Unpublished Ph.D. dissertation, MIT.

Jaeggli, Osvaldo. 1982. *Topics in Romance Syntax*. Dordrecht: Foris.

Kayne, Richard. 1984a. *Connectedness and Binary Branching*. Dordrecht: Foris.

Kayne, Richard. 1984b. "Principles of Particle Construction". Unpublished ms. Universitè de Paris 8.

Larson, Richard. 1988a. "On the Double Object Construction". *Linguistic Inquiry* 19:3. 335-392.

Larson, Richard. 1988b. "Light Predicate Raising". *Lexicon Project Working Papers* 27. Cambridge, MA: Center for Cognitive Sciences at MIT.

Longobardi, Giuseppe. 1985. "The Theoretical Status of the Adjunct Condition". Unpublished ms., Pisa, Scuola Normale Superiore.

Marantz, Alec P. 1984. *On the Nature of Grammatical Relations*. Cambridge, MA: MIT Press.

Pollock, Jean-Yves. 1989. "V Movement, Universal Grammar and the Structure of IP". *Linguistic Inquiry* 20. 339-364.

Pustejovsky, James. 1988. "The Geometry of Events". *Studies in Generative Approaches to Aspect* ed. by Carol Tenny, 19-39. *Lexicon Project Working Papers* 24. Cambridge, MA: Center for Cognitive sciences at MIT.

Reinhart, Tanya. 1976. *The Syntactic Domain of Anaphora*. Unpublished Ph.D. dissertation, MIT.

Rizzi, Luigi. 1986. "Null Objects in Italian and the Theory of *pro*". *Linguistic Inquiry* 17:3. 501-558.

Rizzi, Luigi. 1990. "Relativized Minimality". Cambridge, MA: MIT Press.

Roberts, Ian. 1987. *The Representation of Implicit and Dethematized Subjects*. Dordrecht: Foris.

Rouveret, Alain and Jean-Roger Vergnaud. 1980. "Specifying Reference to the Subject". *Linguistic Inquiry* 11. 97-202.

Safir, Ken. 1987. "The Syntactic Projection of Lexical Thematic Structure". *Natural Language and Linguistic Theory* 5. 561-602.

Tenny, Carol. 1987. *Grammaticalizing Aspect and Affectedness*. Unpublished Ph.D. dissertation, MIT.

Tenny, Carol. 1988. "The Aspectual Interface Hypothesis: The Connectedness between Syntax and Lexical Semantics". *Studies in Generative Approaches to Aspect* ed. by Carol Tenny, 1-18. *Lexicon Project Working Papers* 24. Cambridge, MA: Center for Cognitive Science at MIT.

Vendler, Zeno. 1967. *Linguistics in Philosophy*. Ithaca, NY: Cornell University Press.

Vergnaud, Jean-Roger. 1974. *French Relative Clauses*. Unpublished Ph.D. dissertation, MIT.