Manuel Leonetti
Vicky Escandell-Vidal

Secondary Predication Inside DPs

1991

CLI-91.I.7

University of Venice
Working Papers in Linguistics

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1. INTRODUCTION

Recent developments in grammatical theory have stressed the existence of thematic and structural similarities between sentences and noun phrases (DPs). Among these similarities we will focus on the fact that both DPs and sentences seem to be able to support secondary predicates (SPs), as shown in the following examples[1]:

(1) a. [*DP* La entrada de Ernesto *borracho*] causó sorpresa
         The entrance of Ernesto *drunk* caused surprise
     b. Es imprescindible [*DP* la captura de ese animal *vivo*]
         It's absolutely-necessary the capturing of that animal *alive*
     c. [*DP* Su descripción de Juan *en pijama*] nos hizo reír
         Her/his description of Juan *in pyjamas* us made laugh
     d. [*DP* La difusión de las imágenes *previamente censuradas*] ha suscitado duras críticas
         The difusion of the images *previously censored* has raised severe criticism

(2) a. Ernesto entró *borracho*
         Ernesto entered *drunk*
     b. Capturaron *vivo* al animal
         (They)-captured *alive* to-the animal
     c. Describió a Juan *en pijama*
         (She/he)-described (to) Juan *in pyjamas*
     d. Las imágenes las difundieron *previamente censuradas*
         The images them (they)-difused *previously censored*

Two different approaches to the study of secondary predicates have been proposed in the GB literature: the predication theory[2], and the small clause theory[3]. We do not intend to take part in such a debated issue; in fact, the following remarks can be maintained independently of one's preferences for either approach.

The aim of this paper is to provide an account of the occurrence of SPs related to a DP inside another DP[4], i.e., in a structure such as the one in (3):

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(3) $[_{DP}$ ... N° ... DP$_i$ ... XP_i ...]

- where XP stands for the secondary predicate
- where the coindexing indicates the sub-
  ject-predicate relation

We will try to provide an answer to the following ques-
tions:
  i) which kind of nominal heads license SPs?
  ii) which kind of SPs can appear inside DPs?
  iii) do the same restrictions apply to SPs in sentences
      and DPs?
In doing this, we will address some basic issues
concerning the thematic and structural properties of DPs,
showing how the study of predication relations can throw
some light on other aspects of the behaviour of nominals.

2. NOMINAL HEADS AND SECONDARY PREDICATES

2.1. Nouns and Events

2.1.1. A First Generalization
In trying to answer question i), it can be easily seen
that not every nominal head is able to support a SP: the fo-
llowing examples, although they contain the same predicative
relation between the same lexical items as in (1), are ill-
formed in the relevant interpretation:

(4) a. *Reconocieron [$_{DP}$ el anillo de Ernesto *borracho*]
        (They)-recognised the ring of Ernesto *drunk*
     b. *Hemos comprado [$_{DP}$ la jaula de ese animal *vivo*]
        (We)-have bought the cage of this animal *alive*
     c. *Está lista [$_{DP}$ la cena de Juan *en pijama*]
        (It)-is ready the dinner of Juan *in pyjamas*
     d. *Se perdió [$_{DP}$ la cinta de las imágenes *previa-
        mente censuradas*]
        SE$_{CL}$ was-lost lost the film of the images *pre-
        viously censored*

The contrast between (1) and (4) suggests that the DPs in
(4) are headed by nouns which cannot license a SP, because
they lack some crucial property of the nouns in (1). At
first sight, the main difference would seem to be the fact
that *entrada, captura, descripción* and *difusión* are all
derived from a verb and denote an event, while *anillo, jau-
la, cena* and *cinta* are not deverbal nouns and do not denote
events.
    As SPs in sentences always require a basic or primary
verbal predication, it is natural to think that in DPs too
some sort of "primary predicate" is necessary in order to
enable the occurrence of a SP. Event nouns are supposed to
behave in the same way as their verbal counterparts in many
respects, so they can be considered responsible for the
acceptability of SPs inside DPs.

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Therefore, a first generalization based on the nature of nominal heads can be suggested, which captures the similarities between sentences and DPs:

> (5) A DP may contain a SP only if its head is an event noun

In this way, the phenomenon in (1) is clearly related to some general principles governing secondary predication, given that some authors[5] have argued that the presence of predicative adjectives depends upon the eventive structure of sentences[6].

2.1.2. Theory of Events

All these facts are clearly related to the concept of *event* or *eventive interpretation*. A theoretical explanation can be found for them, relying on D. Davidson's theory of events, as recently developed by Higginbotham (1985) and others.

According to his proposal, the argument structure of verbs has a special position for an eventive argument $\langle e \rangle$; some adjectives and prepositions also contain an $\langle e \rangle$ position in their θ-grid. The assumption is that the licensing of SPs depends on the discharge of the $\langle e \rangle$ position by θ-identification (à la Higginbotham) with the $\langle e \rangle$ position of the main verb. Obviously, this kind of argument saturation relies crucially on the presence of an $\langle e \rangle$ position in the structure of both the verb and the SP. The generalization in (5) can thus be restated as "SPs are possible in nominals if the head noun has an $\langle e \rangle$ position" (i.e., if it is an event noun).

In fact, notions such as *event* have been shown to be relevant to account for certain interesting data, as Hernanz (1988) points out. For instance, it predicts the ungrammaticality of sentences like (6), where the subject-oriented SP occurs with a non-eventive predicate such as a stative verb:

> (6) a. *María$_i$ adora la música de Mozart *entusiasmada*$_i$
>   María loves the music of Mozart *enthusiastic*
>   b. *Pedro$_i$ sabe francés *contento*$_i$
>   Pedro knows French *happy*

In addition to this, it explains why *escribir* (to write), which is ambiguous between a property (=to be a writer) and an action reading (=to write/to be writing) in (7)a, maintains only the second reading (which is the only eventive one) when a SP is adjoined, as in (7)b:

> (7) a. María escribe
>   María writes
>   'María is a writer/ María is writing'
>   b. Maria escribe *contenta*
>   María writes *happy*
>   '*María is a writer happy/^{OI}María writes happy/
> ^{OI}María is writing happy'

Needless to say, a nominalization may contain a SP only if

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its verbal counterpart is able to accept it as well. Therefore, it is impossible to have nominalizations (if they exist at all) for the sentences in (6):

(8) a. *La adoración de Maria$_i$ de la música de Mozart *entusiasmada$_i$*
         The loving of María of the music of Mozart *enthusiastic*
     b. *El conocimiento del francés de Pedro$_i$ *contento$_i$*
         The knowing of-the French of Pedro *happy*

2.1.3. Some Problems
    However, the generalization in (5) does not cover the full range of data in the proper way. Consider the following DPs:

(9) a. Las descripciones de Venecia$_i$ *inundada$_i$*
         The descriptions of Venice *flooded*
     b. Aquellas afirmaciones de Mandela$_i$ *encarcelado$_i$*
         Those statements of Mandela *imprisoned*
     c. Las composiciones de Horacio$_i$ *desterrado$_i$*
         The compositions of Horace *banished*

(10) a. El retrato de Goya de la Duquesa$_i$ *desnuda$_i$*
         The portrait of Goya of the Duchess *naked*
     b. La foto de Juan$_i$ *de uniforme$_i$*
         The photograph of Juan *of (=in his) uniform*

(11) a. Las medidas de "Miss Italia"$_i$ *desnuda$_i$*
         The measures of Miss Italia *naked*
     b. El aspecto de Ernesto$_i$ *en calzoncillos$_i$*
         The look of Ernesto *in slips*

Since all these DPs contain a SP, in spite of the fact that they do not denote an event, a different account must be suggested.
    The nominal heads in (9) are derived from verbs, and they seem to be the same kind of nominalization that appears in (1). However, as is well known, morphology is sometimes misleading, and deverbal nouns are usually ambiguous between the event/process reading and the result reading. The crucial fact is that the syntactic context in (9) forces the result interpretation[7], which according to the generalization in (5) should not allow the SP. However, the examples are well-formed.
    The DPs in (10) are headed by picture nouns. Picture nouns denote concrete objects, displaying at the same time some "verbal" properties --they are naturally interpreted as having a theme--, but it is clear that they do not denote an event. Again, the occurrence of a SP gives a grammatical result.
    Finally, some nouns which are non deverbal and non eventive are able to license a SP within their maximal projection: this possibility is illustrated in (11).
    Since the concept of *event* does not seem to be adequate to handle all the relevant cases, a broader notion must be found. Such a notion should be broad enough to cover the

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facts presented in (1), (9), (10) and (11), excluding ill-formed examples such as those in (4).

2.2. Events, Pictures, and Objects

The distribution of SPs in DPs seems to be sensitive both to the kind of nominal head of the DP, and to the relationship between this head and the DP subject of the SP. In fact, several interesting contrasts can be derived from the distinctions mentioned above, and from the relation between the subject of predication and the head noun. We will present here some empirical evidence for these assump- · tions, describing the behaviour of different kinds of nominals; an account will be provided in section 2.3.

2.2.1. Deverbal Nouns

Most deverbal nouns can be systematically ambiguous between an event and a result reading. Several explanations have been put forward for this fact. It has been argued that deverbal nouns involve two different morphological processes: lexical and syntactic affixation. Picallo (1991) suggests for Catalan an up-to-date version of the ideas and the spirit in Chomsky (1970): she assumes that event nouns are syntactic nominalizations made *via* affixation at S-structure from a category-neutral head, while result nouns are lexical nominalizations and enter D-structure as nouns. In this way, she explains the inheritance of "verbal-like" properties by event nominals. Starting from a very different point of view, Grimshaw (1990) reaches a somehow similar conclusion: she argues that only event nouns are like verbs in that they have an aspectual analysis and, hence, a "real" argument structure; result nominals, on the other hand, lack argument structure.

These two kinds of nominals show different syntactic properties. In Spanish, event nominalizations, when derived from transitive verbs, are mostly "passive" in their internal syntax[8], as also observed by Cinque (1980) for Italian: the external argument surfaces as a "by-phrase" (*por parte de*+DP)[9], while the internal argument is introduced by the empty preposition[10] *de*, and can also occur in the prenominal "subject position" as a possessive:

    (12) a. El rescate de Juan por parte de los soldados
           The rescue of John by the soldiers
       b. Su rescate por parte de los soldados
          His rescue by the soldiers

On the other hand, result nominalizations exhibit an "active" structure, with the external and internal arguments introduced by the preposition *de*, showing a typical subject-object asymmetry in that only the external argument can appear as a possessive[11] when both are present[11]:

    (13) a. La imitación de Pepe$_{i,j}$ de Julio Iglesias$_{j,i}$
           The imitation of Pepe of Julio Iglesias
       b. Su$_{i}$ imitación de Julio Iglesias$_{j}$

His imitation of Julio Iglesias
   c. *Su$_{1b}$ imitación de Pepe$_{1f}$
      His imitation of Pepe

Concerning monadic predicates, the distinction between ergative and intransitive verbs is maintained in nominalizations, as Picallo (1991) has shown for Catalan with arguments that can be reproduced for Spanish[1]. Ergatives are supposed to be ambiguous between the event and the result reading, while intransitives are considered mostly as results. Both the internal argument of ergative nominals and the external argument of intransitive nominals surface as *de*+DP, behave as subject of NP, and can appear as a possessive:

(14) a. La desaparición de las joyas
     The disappearance of the jewels
   b. Su desaparición
     Their disappearance

(15) a. El grito de su hermano pequeño
     The cry of his brother little
   b. Su grito
     His cry

Given that there are differences in the syntactic behaviour of event and result nominals, one should expect some asymmetry between the two groups of nouns concerning the occurrence of SPs: in particular, eventive nominals, which share an important number of properties with verbs, should accept SPs more easily than result nominals. However, at first sight --but see 2.3.3.--, the data do not seem to support clearly such an expectation. Consider the following examples:

(16) a. El rescate de Juan$_i$ *moribundo*$_i$ por parte de los soldados
     The rescue of Juan *dying* by the soldiers
   b. El rescate de Juan por parte de los soldados$_i$ *nerviosos*$_i$[14]
     The rescue of Juan by the soldiers *nervous*

(17) a. La llegada de Roberto$_i$ *cansado*$_i$
     The arrival of Roberto *tired*
   b. El paseo de Juana$_i$ *descalza*$_i$ por el parque
     The walk of Juana *barefoot* in the park

(18) a. Las imitaciones de Pepe$_{1f}$ de Juan$_{1b}$ *furioso*
     The imitations of Pepe of Juan *furious*
   b. Las imitaciones de Juan$_{1b}$ de Pepe$_{1f}$ *furioso*
     The imitations of Juan of Pepe *furious*

(19) a. Una traducción del texto$_i$ *incompleto*$_i$
     A translation of the text *incomplete*
   b. Las traducciones de María$_i$ *inspirada*$_i$
     The translations of María *inspired*

The examples in (16) and (17) contain eventive deverbal nouns, with SPs modifying the internal or the external argument. The same happens in (18) and (19), where the

nominal head is a result noun.

Nevertheless, other examples show that this is not a general property of results, as indicated by the contrasts in (20) and (21):

(20) a. El hallazgo del prisionero$_{i\lambda}$ *maniatado*
        The finding of the prisoner *handcuffed*
     b. *Los hallazgos del prisionero$_{i\lambda}$ *maniatado*
        The findings of the prisoner *handcuffed*

(21) a. La compra de los coches *recién revisados*
        The purchase of the cars *just revised*
     b. *Las compras de los coches *recién revisados*
        The purchases of the cars *just revised*

When the head noun denotes an event (as in the singular forms *hallazgo y compra*), theme-oriented predicatives are allowed; but they are not if the head noun denotes an object which is the result of a process (as in the plural forms *hallazgos* and *compras*).

On the other hand, SPs oriented to the experiencer or the agent are acceptable even with result nouns, as shown in (22):

(22) a. Los hallazgos de María$_{i}$, *inspirada*
        The findings of María *inspired*
     b. Las compras de María$_{i}$, *entusiasmada*
        The purchases of María *enthusiastic*

Then, these facts lead the discussion back to the notion of *event*, showing that it can still be relevant for the licensing of some kinds of SPs.

Another interesting fact is that, in eventive nouns, implicit arguments[15] can be subjects of SPs[16]; this is possible both with diadic or transitive predicates, as in (23), and with monadic predicates (intransitives or unaccusatives), as in (24); in addition, implicit arguments can be interpreted as specific (when controlled by another element in the sentence), or arbitrary (when free):

(23) a. [$_{s}$ La [e]$_{i}$ detención de "El Pelos" *disfrazada de camarera$_{i/*i}$*] le$_{i}$ valió a María$_{i}$ un ascenso
        The arrest of "El Pelos" *dressed$_{i/i}$ of (=as a) waitress* to-her^{ci} yielded to María a promotion
     b. [$_{s}$ La [e]$_{i}$ proclamación de los resultados *borracho$_{i/*i}$*] le$_{i}$ costará el cargo
        The proclamation of the results *drunk* to-him$_{ci}$ will-cost the post

(24) a. [$_{s}$ La [e]$_{i}$ presentación ante el capitán *mal afeitado$_{i}$*] es motivo de sanción[17]
        The appearance in-the-presence-of the captain *badly shaved* is motive of punishment

     b. [$_{s}$ Aquel [e]$_{i}$ paseo *descalza$_{i/*i}$* por el parque] le$_{i}$ destrozó los pies
        That walk *barefoot* in the park to-her$_{ci}$ destroyed the feet

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It must be added that not every deverbal noun allows SPs in its maximal projection; in agentive nominalizations, for instance, SPs are impossible. Consider the following examples, in which *-dor/-tor* (*-er*) is the nominal suffix:

(25) a. El comprador del traje barato
       The buyer of-the suit cheap
    b. El vendedor de las manzanas podridas
       The seller of the apples rotten
    c. El constructor de la casa grande
       The builder of the house big

These DPs are well-formed only if the adjective acts as an internal modifier; the predicative reading is impossible for them, in spite of the fact that it is perfectly acceptable in the sentential counterparts in (26):

(26) a. Compró el traje *barato*/(El traje) lo compró
       barato[1]
       (She/he)-bought the suit *cheap*/The suit it$_{CL}$
       (she/he)-bought *cheap*
    b. Vendía las manzanas *podridas*/(Las manzanas) las
       vendía *podridas*
       (She/he)-sold the apples *rotten*/The apples
       them$_{CL}$ (she/he)-sold *rotten*
    c. Bebe el café *caliente*/(El café) lo bebe
       caliente
       (She/he)-drinks the coffee *hot*/The coffee it$_{CL}$
       (she/he)-drinks *hot*
    d. Construyó la casa *grande*/(La casa) la construyó
       grande
       (She/he)-built the house *big*/The house it$_{CL}$
       (she/he)-built *big*

Agentive nominalizations in *-dor/-tor*, then, lack the capacity of making secondary predication possible.

2.2.2. Picture Nouns

As is well known, lexical items such as *foto* (photograph), *cuadro* (picture) or *retrato* (portrait) can occur with complements which can be interpreted as the agent (27b), the theme (27c) or the possessor (27d):

(27) a. La foto de Roberto
       The photograph of Roberto
    b. The photograph taken by Roberto
    c. The photograph in which Roberto appears
    d. The photograph owned by Roberto

Picture nouns display properties very similar to those of deverbal nouns in accepting SPs. Notice that in (28), with the adjective *descalzo* (barefoot) as a SP, the DP *Roberto* can only be interpreted as the theme of the photograph:

(28) La foto de Roberto *descalzo*
     The photograph of Roberto *barefoot*

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The readings in which Roberto is the "agent" (29a), or the possessor (29b) are impossible:

(29) a. The photograph taken by Roberto barefoot
     b. The photograph owned by Roberto barefoot

This effect could be due to a pragmatic reason, namely the difficulty of conceiving the property of 'being barefoot' in example (28) as a relevant condition for a photographer or a simple possessor; the agent-oriented reading can be forced to occur if we choose a more natural property in the predicative AP, as in (30):

(30) Los cuadros de Ernesto$_i$, *borracho* son mejores que los que pinta *sobrio*[11]
     The pictures of Ernesto drunk are better than the ones he paints sober

When two complements are present, again the SP is naturally interpreted as referring to the theme, but not to the agent, and therefore, (31a) is not ambiguous; however, the ambiguity does appear in the corresponding sentence (31b):

(31) a. El retrato de Velázquez$_i$ de Felipe IV$_j$ *sentado*$_{i/j}$
        The portrait of Velázquez of Felipe IV *seated*
     b. Velázquez$_i$ retrató a Felipe IV$_j$ *sentado*$_{i/j}$
        Velázquez portrayed to Felipe IV *seated*

In the examples in (31) the pragmatic explanation does not work, since the sentence in (31b) is acceptable, but the corresponding DP in (31a) is not. In DPs headed by picture nouns, then, the occurrence of agent-oriented SPs is much more constrained than the occurrence of theme-oriented SPs.
   A related difference has to do with implicit arguments. As seen above, SPs can refer to implicit arguments in DPs headed by eventive nouns; when the head is a picture noun, this is not allowed for agent-oriented SPs, but it is possible for theme-oriented SPs:

(32) a. El retrato del Rey$_i$ *sentado*$_{i/*j}$
        The portrait of-the King *seated*
     b. Me$_i$ gustaría [PRO$_i$ tener un retrato [e]$_i$ *vestido de explorador*$_{i/*j}$]
        To-me$_{cl}$ (it)-would-like to have a portrait *dressed of (=as an) explorer*
     c. Un retrato [e]$_i$ *de uniforme*$_{i/*j}$ siempre queda bien
        A portrait *in uniform* always looks good.

(32a) is ill-formed if *sentado* (seated) is interpreted as oriented to an implicit agent; (32b) and (32c), on the other hand, contain well-formed theme-oriented SPs, with a specific (clitic-controlled) implicit theme in the first case, and an arbitrary or generic one in the second case.
   To sum up, the occurrence of SPs with picture nouns is more restricted than with eventive nouns, but not so

restricted as with result nouns denoting concrete objects.

2.2.3. Other Nouns

As shown by the examples in (11), SPs are possible with nominal heads not belonging to the two classes mentioned above. Recall the contrast between (4) and (11), repeated here as (33) and (34):

> (33) a. *Reconocieron [ₚ el anillo de Ernesto *borracho*]
>   b. *Hemos comprado [ₚ la jaula de ese animal *vivo*]
>   c. *Está lista [ₚ la cena de Juan *en pijama*][10]
>   d. *Se perdió [ₚ la cinta de las imágenes *previa-
>   mente censuradas*]

> (34) a. Las medidas de Miss Italia *desnuda*
>   b. El aspecto de Ernesto *en calzoncillos*

What is the difference between the head nouns in (33) and (34)? Intuitively, nouns such as *medidas* and *aspecto* are intrinsically "relational" (i.e., when we speak about measures, weight or look, we usually presuppose that they are someone's, or something's, measurements, weight or look). In a way, relational nouns can be said to be "obligatorily transitive", since they need a complement that specifies the person or the thing to which the property denoted by the noun must be attributed[11]. The set of relational nouns includes those lexical items involved in a relationship of inalienable possession, such as body-parts and parts of things, and kinship terms: they imply some mention of a "possessor" or related element. On the other hand, concrete nouns which simply denote objects cannot be said to be "transitive" in this way: a glass is not inherently someone's glass. In order to define the meaning of the word *glass*, it is not necessary to mention any other entity related to the object; but a definition of the meaning of *shape* or *weight*, entails the notion that *shape* or *weight* are always "properties" of an object.

Kkinship terms seem to be an exception among relational nouns, because they do not accept SPs:

> (35) a. *El hermano de María *enferma*
>   The brother of María *ill*
>   b. *La nieta de Ernesto *furioso*
>   The grand-daughter of Ernesto *furious*

The relation between head and complement in these examples is such that it does not allow temporal or aspectual modifications: when someone is someone else's relative, this tie is not subject to contingent changes. Therefore, SPs with kinship terms are excluded on independent pragmatic grounds.

A similar explanation can be put forward for the oddity of examples with body-part nouns. Compare (36a) and (36b):

> (36) a. ?La pierna de Pepe *enfermo*
>   The leg of Pepe *ill*
>   b. La nariz de Pepe *borracho*
>   The nose of Pepe *drunk*

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In the second case, it is easy to conceive the nose as a thing whose aspect can vary according to the state of Pepe, sober or drunk, while in the first case such a variation is not as easy to imagine concerning a leg. Consider also the conditions for interpreting (37):

> (37) El único amigo de Pedro *borracho* es Luis.
>   The only friend of Pedro *drunk* is Luis

Amigo (friend) denotes a relationship which, prototypically, is not supposed to be subject to temporary variations; but the presence of the predicative AP *borracho* (drunk) indicates just this sort of change and forces an interpretation which can be paraphrased as "The only real friend of Pedro when he is drunk is Luis."

To sum up, the acceptability of SPs with relational nouns is tied to the possibility of conceiving this sort of temporary variations in the relationship expressed by the noun and its complement. This can be seen as a general condition applying also to other kinds of noun (see 3.2.2). Relational nouns, when they allow temporal modifications, behave like deverbal and picture nouns in their acceptance of SPs. In some cases, they even accept implicit arguments with an arbitrary interpretation as subjects of SPs:

> (38) a. Las medidas *desnuda* son un factor importante en
>   cualquier concurso de belleza.
>   The measures *naked* are an important factor in
>   any beauty contest
>   b. Lo que cuenta es la altura *descalzo*
>   What counts is the height *barefoot*

The dichotomy relational/non-relational also helps to explain some subtle differences in the behaviour of nouns with a similar meaning:

> (39) a. Las memorias de Juan *encarcelado*
>   The memoirs of Juan *imprisoned*
>   b. ?El libro de Juan *encarcelado*
>   The book of Juan *imprisoned*

Although *memorias* and *libro* could have the same referent, the first noun accepts a SP inside its maximal projection more easily, and it is due to its relational nature.

Relational nouns, then, select a complement in a way that resembles complement selection by verbs. This seems to be the crucial property involved in SP licensing: relational nouns, when the relationship they denote is subject to temporary variation, allow instances of SP for their complement.

2.3. The Licensing of SPs

2.3.1. Argument Structure and Thematic Structure

The previous discussion leads to the natural conclusion that in fact the notion of *event* is not the only relevant

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one in explaining the occurrence of SPs in DPs. A more general property shared by deverbal, picture and relational nouns must be responsible for the facts noted above. Our claim is that this property is the capacity of the head noun to select arguments. The resulting generalization can be stated informally as follows:

> (40) A head noun N licenses SPs inside its projection only for its arguments[11]

This assertion relies on the existence of argument structure in nouns. In fact, this is a much debated issue[11]. In a recent study, Grimshaw (1990) has suggested a very narrow concept of argument structure (AS): according to her, AS is a representation of prominence relations among the arguments of a head, determined by the interaction of two different levels: thematic representation (which contains some information on θ-participants), and event structure (which accounts for the aspectual analysis). In her proposal, only complex event nouns have AS in the proper sense (i.e., both a thematic and an aspectual level of representation), which explains the well-known asymmetries between event and result readings.

If so, the licensing of SPs cannot rely upon AS, since it has been shown that both event and result deverbal nouns, picture nouns, and relational nouns accept SPs. The only property shared by all these kinds of nominals is that of having thematic structure, in Grimshaw's terms. All nouns have a lexical-conceptual structure (LCS) which may contain participants: the ordered set of participants constitutes their thematic structure. When LCS projects into syntax, each projected participant is θ-marked by the head noun, regardless of its syntactic realization. Then, we could restate the generalization in (40) as in (41):

> (41) A head noun N licenses SPs inside its projection only for elements of its thematic (LCS) structure

Now, we can check the predictions of this generalization.

2.3.2. Some Consequences

According to (41), only θ-marked complements can be subjects of SP inside a DP. If this is right, one should expect that non θ-marked modifiers or adjuncts will not be able to be subjects of SP. In fact, this first prediction happens to be correct: modifiers indicating alienable possession are not θ-marked, while, as we argued above, in-alienable "possessors" are θ-marked; hence the following contrast between (42)(alienable) and (43)(inalienable) is easily explained:

> (42) a. *Los zapatos de Ernesto *dolorido*
>   The shoes of Ernesto *hurt*
>   b. *El coche de Juan *feliz*
>   The car of Juan *happy*

> (43) a. La mirada de Ernesto *enamorado*
>   The gaze of Ernesto *in-love*

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b. La cara de Juan *contento*
           The face of Juan *glad*

The generalization in (41) successfully predicts the
contrast between (42) and (43); but, in a sense, it is too
weak, since it does not permit to make predictions about
which elements of the thematic structure will be able to act
as subjects of SPs. As it is stated, (41) does not provide
an answer to two questions: 1) do all LCS elements display
the same properties?; and 2) if they do not, which ones will
be suitable subjects for SPs? A more restrictive ge-
neralization is needed.
        Suppose that the answer to the first question is
affirmative. If so, we would have to account for a pair of
counterexamples to the statement that there is a uniform
correlation between LCS elements and SPs.
        The first problem is the behaviour of result nominals.
Object-oriented predicatives seem to be excluded when the
noun denotes an object:

        (44) a. *Los hallazgos del encarcelado$_{ti}$ *maniatado*
                The findings of the prisoner *handcuffed*
             b. *Las compras de los coches$_{ti}$ *recién revisados*
                The purchases of the cars *just revised*

The fact of denoting an object cannot be the reason for this
unacceptability: if picture nouns such as *fotografía* (photo-
graph) or *retrato* (portrait) also denote objects, why are
they able to license object-oriented predicatives, as in
(45)?:

        (45) a. Las fotos de Elena *descalza*
                The photographs of Elena *barefoot*
             b. Los retratos del Rey *sentado*
                The portraits of-the King *seated*

        This difference can be easily explained, if one takes
into account the following considerations. Several authors,
following Williams (1981) and Di Sciullo & Williams (1987),
have claimed that nouns have as their external argument a
non-thematic relation R, which must be satisfied by
predication or by reference. When the DP headed by a noun
is used referentially, the external argument R equals the
denoted object. In a number of result nominalizations (in
those that denote an object), R is identified both with an
LCS element of the head, and with the referred object. As
observed by Grimshaw (1990: 102-104), this identification
between R and one of the LCS elements is a crucial factor in
preventing the licensing of certain complements of the head
noun.
        We will adopt here Grimshaw's line of reasoning to ex-
plain the absence of SPs in some result nominals: if one of
the LCS elements is identified with R, then it cannot
project into a direct LCS complement. This is why the exam-
ples in (44) are ill-formed. Obviously, if direct LCS
complements are not licensed, no instance of SP is expected
to appear. In picture nouns, on the other hand, R is not
identified with any of the LCS elements: this makes the noun
transparent for LCS licensing of complements, and hence, of

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SPs. In this respect, one can predict that deverbal result nouns in which there is no identification between R and a LCS argument will behave as picture nouns, allowing SPs for their internal argument: in fact, this is the case of nominals indicating some kind of representation, like *descripción*.

In this way, result nouns are no longer a counterexample to the idea of a uniform correlation between LCS elements and SPs, because there is an intervening factor: the identification with R. In these cases, result nouns prevent the projection of one of their LCS elements.

A second problem can be found in the behaviour of agentive nominalizations in *tor/dor*, which do not allow the occurrence of SPs. The examples in (25), repeated here as (46), are ill-formed in the relevant interpretation:

(46) a. *El comprador del traje *barato*
        The buyer of-the suit *cheap*
     b. *El vendedor de las manzanas *podridas*
        The seller of the apples *rotten*
     c. *El constructor de la casa *grande*
        The builder of the house *big*

Notice that such nominalizations do not allow SPs in their projection even when they are eventive. It is an unexpected phenomenon, since they seem to inherit at least some of the properties of their corresponding verbs.

As in the case of result nouns, the solution relies on the role of the R element: again, there is an LCS element identified with R. Agentive derived nouns denote individuals which play the role of agent of the corresponding verbs. This is why a complement indicating the agent (for example, a "*by*-phrase") cannot occur with an agentive noun:

(47) *El comprador del traje por Juan
     The buyer of-the suit by Juan

For the same reason, no agent-oriented SPs will appear, and control of a PRO in a subordinate clause will be impossible, as noted by Jaeggli (1986). The agent argument is thus syntactically inert.

Now, the absence of object-oriented SPs can be seen as a consequence of the identification of R with the most prominent element in LCS. We cannot offer a fully worked-out solution yet, but probably the blocking of the most prominent element will be responsible for the blocking of the less prominent elements. In a sense, the opacity induced in LCS by the identification of one of its elements with R seems to follow the thematic hierarchy: notice that in result nouns, the identification of the theme (internal) argument with the referent does not block the appearance of agent-oriented SPs, while the identification of the agent with R blocks even theme-oriented SPs in agentive nouns.

Bearing in mind these facts, the generalization in (41) can now be restated in a more precise way:

(48) A head noun N licenses SPs inside its projection
     for all and only the transparent elements of its
     LCS.

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There is still one point which should be mentioned. If the generalization in (48) is correct, one is led to say that picture nouns display a "complete" thematic structure (with a theme and an agent), since examples such as (30) show the possibility of having an agent-oriented SP. However, it does not seem "natural" to posit an agentive element in the LCS of pictures nouns: in spite of the fact that photographs, portraits and pictures are results of human activities, a portrait is intrinsically defined only as an image of someone, a photograph is only a view of someone or something, and so forth. As suggested to us by A.-M. Di Sciullo (personal communication), picture nouns "lack" an agentive argument just because they are not deverbal nouns, so they are not supposed to inherit any thematic structure from another word; moreover, verbs such as *fotografiar* (to photograph) or *retratar* (to portray) are derived from picture nouns by means of a causativization process which adds the external argument. From this point of view, no agentive argument is expected to be syntactically active in DPs headed by picture nouns. Why, then, are agent-oriented SPs allowed with picture nouns?

We believe that the "agent" of a picture noun, although it is not a constituent part of the thematic structure of *picture*, can be pragmatically evoked and recovered: when the context forces the agentive interpretation for a complement, an effect of LCS extension is obtained. The same effect appears whenever an agent can be evoked or "added", even if the head noun lacks thematic structure at all, as in (49):

(49) Los discos de Pepe *inspirado*
     The records of Pepe *inspired*

When Pepe is the owner of the records, the SP is not allowed, as expected for a possessor; on the other hand, if Pepe is given an agentive reading, the sequence can be acceptable because we are supplying the noun *records* with a thematic element.

Anyway, these "agents" do not display all the syntactic properties of real LCS agents. Our proposal receives further support from the fact that "agents" in picture nouns are not able to control a PRO in a rationale clause, as shown in (50):

(50) a. *El retrato de Juan$_{i}$ de la princesa$_{k}$ para
        [PRO obtener el favor del Rey]
        The portrait of Juan of the princess to obtain
        the favour of-the King
     b. *La foto de Ernesto$_{i}$ de María$_{k}$ para [PRO impresionarla]
        The photograph of Ernesto of María to impress
        her

The examples in (50) indicate that "agents" of picture nouns cannot pass a well-known test for agentive arguments. This explains the fact that the acceptability of examples such as (30) and (49) is quite restricted.

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2.3.3. Two Kinds of Secondary Predicates

The generalization in (48) seems to be descriptively adequate; however, it leads to the theoretically undesirable conclusion that the licensing of SPs in DPs does not depend on the same factors as in sentences. As a matter of fact, (48) implies that the notion of *event* is irrelevant to explain the occurrence of SPs in DPs; but we saw that it is not at all irrelevant to explain their occurrence in sentences (see section 2.1.3). We would like to claim that the concepts of *event* and *eventive reading* are still important as far as DPs are concerned; in this way, the parallelism between sentences and DPs could be maintained.

Actually, it would be quite surprising if event and re-sult nominals behaved exactly the same way in their acceptance of SPs, because they show different properties in many respects. In fact, certain contrasts can be related to the presence or absence of an eventive interpretation: in particular, agent-oriented SPs seem to be especially sen-sitive to the eventive reading. Syntactic tests like possessivization and dislocation can throw some light on them. Consider the following paradigms, in which the subject of predication appears as a possessive:

(51) a. Su_i aparición *borracho*$_i$
        His appearance *drunk*
    b. Su_i captura *vivo*$_i$
        His capture *alive*
    c. Su_i foto *descalzo*$_i$
        His photograph *barefoot*
    d. Su_i retrato *sentado*$_i$
        His portrait *seated*
    e. Sus_i medidas *desnuda*$_i$
        Her measures *naked*
    f. Su_i aspecto *en calzoncillos*$_i$
        His look *in slips*

(52) a. Su_i paseo *descalza*$_i$
        Her walk *barefoot*
    b. Su_i actuación *disfrazado*$_i$ *de Aladino*
        His performance *dressed of (=as) Aladino*
    c. Su_i intervención *furioso*$_i$
        His speech *furious*
    d. ?/*Sus_i afirmaciones *encarcelado*$_i$
        His statements *imprisoned*
    e. ?/*Sus_i composiciones *desterrado*$_i$
        His compositions *banished*
    f. ?/*Sus_i fotos *sobrio*$_i$
        His photographs *sober*

In (51), the SPs are all predicated of an internal argument, and the constructions are well-formed, irrespective of the kind of noun head. In (52), on the other hand, the SPs are agent-oriented, and only when the noun is eventive, we get a completely acceptable sequence. Leaving aside other intervening factors such as affectedness, the facts in (52) suggest that agent-oriented SPs behave in different ways depending on the eventive status of the head noun, while theme-oriented SPs display a uniform behaviour.

Moreover, the contrast in (52) reappears in quite the

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same way in dislocated structures:

>(53) a. De Juana$_i$, recuerdo aquel paseo *descalza*$_i$
>   Of Juana, I remember that walk *barefoot*
>   b. De Manuel$_i$, me gustó la actuación *disfrazado*$_i$ *de*
>   *Aladino*
>   Of Manuel, to-me$_{CL}$ (it)-pleased the perfomance
>   *dressed of Aladino*
>   c. De él$_i$, sólo recuerdo aquella intervención *fu-*
>   *rioso*$_i$
>   Of him, only (I)-remember that speech *furious*
>   d. *De Mandela$_i$, escuché las afirmaciones *encarce-*
>   *lado*$_i$
>   Of Mandela, (I)-heard the statements *imprisoned*
>   e. *De Horacio$_i$, no he leído las composiciones
>   *desterrado*$_i$
>   Of Horace, not (I)-have read the compositions
>   *banished*
>   f. *De Pepe$_i$, me gustan las fotos *sobrio*$_i$
>   Of Pepe, to-me$_{CL}$ (they)-please the photographs
>   *sober*

When there is no event, agent-oriented SPs do not admit to
be separated from their subjects, so strict adjacency is
required, as shown by the contrast in (54) and (55):

>(54) a. El paseo de Juana$_i$ por el parque *descalza*$_i$
>   The walk of Juana by (=in) the park *barefoot*
>   b. La actuación de Manuel$_i$ en el colegio *disfraza-*
>   *do*$_i$ *de Aladino*
>   The performance of Manuel in (=at) the school
>   *dressed of Aladino*
>   c. La intervención de Pepe$_i$ en la reunión *furioso*$_i$
>   The speech of Pepe in the meeting *furious*
>   d. *Las afirmaciones de Mandela$_i$ para los
>   periodistas *encarcelado*$_i$
>   The statements of Mandela for the reporters
>   *imprisoned*
>   e. *Las composiciones de Horacio$_i$ a su amada *des-*
>   *terrado*$_i$
>   The compositions of Horacio to his lover
>   *banished*
>   f. *Las fotos de Pepe$_i$ en el jardín *sobrio*$_i$
>   The photographs of Pepe in the garden *sober*

>(55) a. El paseo de Juana$_i$ *descalza*$_i$ por el parque
>   b. La actuación en el colegio de Manuel$_i$ *disfraza-*
>   *do*$_i$ *de Aladino*
>   c. La intervención en la reunión de Pepe$_i$ *furioso*$_i$
>   d. Las afirmaciones para la prensa de Mandela$_i$
>   *encarcelado*$_i$
>   e. Las composiciones a su amada de Horacio$_i$ *des-*
>   *terrado*$_i$
>   f. Las fotos de Pepe$_i$ *sobrio*$_i$ en el jardín

Both possessivization and dislocation can be used as
constituency tests inside DPs; they indicate that in the
examples with non-eventive nominals, the (agent) subject and
its predicate do not behave as independent elements: this

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seems to suggest that, when there is no event, agent-oriented SPs form a single constituent with their subjects. In eventive nominals, on the other hand, SPs appear in the standard configuration, as independent adjuncts, not included in the projection of their own subjects.

When SPs are internal adjuncts, they have syntactic properties very close to those of nominal appositions. Then, they can be given a representation like the following one[14]:

(56) [$_{J}$ [$_{I}$]$_{i}$ [$_{I}$]$_{i}$]

To sum up, there seems to be a correlation between the absence of the eventive interpretation in the nominal, and the loss of certain syntactic properties by the agent argument. It can be seen as a natural effect, since in non-eventive nominals there is no complete argument structure in Grimshaw's terms, and hence agents are no longer the most prominent element. In this way, the parallelism between sentences and DPs can be maintained: as we saw in 2.1, agent-oriented SPs are dependent on the existence of event, while theme-oriented SPs are not; the same is true for SPs in DPs. It is just because of this aspectual restriction on the distribution of agent-oriented SPs that only a very special type of them (the DP-internal adjunct) can appear in non-eventive DPs. Thus, the notion of *event* is still relevant, and in the same way, both for sentences and DPs.

3. KINDS OF PREDICATES

In the previous section we have tried to give an answer to the question of which kind of nominal heads can license a SP. Here, we will be concerned with our second question: which kind of SPs can appear inside DPs?

3.1. No Subcategorized Small Clauses in DPs

We will assume that the small clause analysis is adequate at least in the cases of so-called "subcategorized small clauses", which appear with verbs like *considerar* and *declarar*, as in:

(57) a. Consideramos [$_{SC}$ importante este acuerdo]
(We)-consider important this agreement
b. Declaro [$_{SC}$ abierta la sesión]
(I)-declare open the session

Subcategorized small clauses differ from other cases of secondary predication in several important respects: while small clauses of the type illustrated in (57) are arguments selected and θ-marked by a lexical head, SPs such as those in (58) --whatever analysis one may choose for them-- appear in non-subcategorized positions and can be considered as some kind of adjunct.

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(58) a. Regresó *satisfecho*
        (She/he)-came-back *satisfied*
    b. Compramos el pan *todavía caliente*
        (We)-bought the bread *still hot*

In (57), the APs cannot be deleted without obtaining an un-grammatical sentence, as shown in (59); but in (58) they can be eliminated, as illustrated in (60):

(59) a. *Consideramos este acuerdo
        (We)-consider this agreement
    b. *Declaro la sesión
        (I)-declare the session

(60) a. Regresó
        (She/he)-came-back
    b. Compramos el pan
        (We)-bought the bread

The first thing to be noticed when one looks at what happens inside DPs is that small clauses equivalent to those in (57) are impossible, while adjunct SPs are allowed --more precisely, all the examples of SPs in DPs until now have been cases of adjunct predicates. The nominals in (61) have been obtained from the small clause construction in (57), and then they are ill-formed; on the contrary, the nominals in (62) have been derived from the adjunct pre-dicate constructions in (58), and they are fully grammatical:

(61) a. *La consideración de este acuerdo *importante*
        The consideration of this agreement *important*
    b. *La declaración de la sesión *abierta*
        The declaration of the session *open*

(62) a. El regreso de Juan *satisfecho*
        The return of Juan *satisfied*
    b. La compra del pan *todavía caliente*
        The buying of the bread *still hot*

Why should adjuncts be the only class of SPs allowed inside a DP? This fact is a consequence of a more general difference between nouns and verbs: verbs are able to select small clauses as arguments and to case-mark the subject DP of these constituents, but nouns do not share this feature.
Chomsky (1986) offers a well known explanation for this contrast. Verbs assign structural case to the DPs governed by them, so they can (under the proper conditions) mark with Accusative a DP they do not θ-mark, such as the subject of a small clause. Nouns are not structural case-assigners, and they can give so-called inherent case only to DPs which they θ-mark at the same time: for a noun to assign inherent case, the θ-marking of an argument is required.
Now, the nominal property of assigning inherent case is responsible for the ill-formedness of (61), because the sub-jects of the small clauses (*este acuerdo* and *la sesión*) cannot obtain case from a head by which they are not θ-marked. The construction, then, cannot be saved by the insertion of a preposition like *de*.

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Recent work by Cinque (1990) offers a slightly different approach which leads, however, to the same results: this property of nouns can be looked at as a consequence of the definition of barrier for government. According to Cinque (1990), a maximal projection is a barrier for government if it is not directly selected by a [+V] head. Then, nouns, being [-V], will not be able to govern inside a lower XP, and consequently to assign case to the subject of a small clause. A similar claim was made by Kayne (1984): nouns are non-structural governors, so they can govern only elements subcategorized by them.

The same mechanism which accounts for the lack of small clause complements in nominals can also help to explain other related phenomena. First, it explains why DPs do not contain Exceptional Case Marking (ECM) constructions in English, as illustrated by (63):

(63) *The belief of him to be a good cook

Again the subject of the embedded predication cannot receive case from the head noun because it is not θ-marked by it, and the structure results in a Case-Filter violation.

A similar explanation can be suggested for the absence of Raising in DPs, as exemplified in:

(64) *John's$_i$ appearance t$_i$ to leave

This fact was noted in Williams (1982). He argued that Raising is impossible because the predication relation that should exist between *John* and *appearance to leave* cannot hold, given that the second constituent is not a maximal projection and, therefore, cannot be a predicate[15]. Hornstein and Lightfoot (1987) suggest, against Williams, that the ungrammaticality of (64) is not due to some constraint on predication, but rather to the unavailability of inherent case for the DP *John*, which is not an argument of the head noun *appearance*. G. Cinque (personal communication) observes that this explanation cannot be correct: we obtain an ill-formed result even if we replace *John* with PRO, which does not require to receive case:

(65) *The PRO appearance to leave

Then, there are no Case-Filter violations in (64) and (65); according to Cinque, raising is impossible in DPs because nouns are not able to head-govern the trace of the raised element across IP.

Finally, if the preceding remarks are on the right track, the impossibility of subcategorized small clauses in DPs provides evidence for not considering Spanish resultative[16] predicates as subcategorized small clauses. Compared to English, Spanish has a very limited number of resultative SPs in sentences. In fact, constructions such as the English ones in (66) do not exist at all:

(66) a. John hammered the metal *flat*
        *Juan martilleó el metal *plano*
     b. John drunk himself *silly*
        *Juan se emborrachó *estúpido*

However, some resultative APs seem to be able to appear in DPs:

> (67) a. La colocación de las mesas *juntas*
>   The setting of the tables *together*
>   b. La fabricación de los tornillos *demasiado gran-*
>   *des*
>   The making of the screws *too big*

This leads to the conclusion that, at least in Spanish, they should not be given a subcategorized small clause analysis, providing evidence for their adjunct status. However, a more accurate study of the data will suggest a different solution; we will return to this issue below.

3.2. Two Restrictions on SPs in DPs

There are two strong restrictions on the type of SPs allowed in nominals: the first one determines the categorial nature of the predicate; and the second, its semantic nature. These restrictions can also be derived from the lack of subcategorized small clauses in DPs.

3.2.1. The Categorial Restriction
The generalization concerning categorial status can be expressed as follows:

> (68) A DP cannot be a SP inside another DP[17].

This implies that only APs and PPs (and, in some cases, NPs) can be predicated of a DP inside a nominal. This is not a stipulative condition, but follows naturally from the facts noted above: in sentences, DPs can be SPs only when they are selected by certain verbal heads as small clause constituents; since these structures are not allowed inside DPs, the SPs must be adjectival or prepositional. Compare the sentence in (69a) and the DP in (69b), in which the predication can be nominal only if preceded by the preposition *como*[18]:

> (69) a. Considero a Juan *mi mejor amigo*
>   (I)-consider Juan *my best friend*
>   b. La consideración de Juan *(como) mi mejor amigo*
>   The consideration of Juan *(as) my best friend*

3.2.2. The Semantic Restriction
The second restriction has to do with the semantic properties of the predicate, and can be stated as follows:

> (70) Only stage-level predicates can appear as adjunct
>   SPs in DPs.

The distinction between *stage-level* and *individual-level* predicates was introduced by Carlson (1977) to account for the various readings of English bare plural subjects[19].

Carlson argues that predicates such as *intelligent* or *tall* apply to individuals (which can be objects or kinds), and express permanent properties; on the other hand, predicates such as *available* or *drunk* apply to stages (i.e., space-time slices of an individual), and express transitory properties. Individual-level predicates impose a generic reading on bare plural subjects, while stage-level predicates impose an existential one. Existential sentences and absolute constructions are also sensitive to Carlson's distinction. In Spanish individual-level predicates are preceded by the copula *ser*, while stage-level predicates must be construed with the copula *estar*.

Rapoport (1990) has claimed that the behaviour of adjunct SPs in sentences is also dependent on this contrast[10]. She argues that adjunct secondary predicate constructions are restricted to stage-level predicates, as illustrated by the contrast between (71) and (72):

> (71) a. Ayala bought the dog *sick*
> b. Ayala cut the bread *wet*

> (72) a. *Ayala bought the dog *intelligent*
> b. *Ayala cut the bread *white*

While stage-level predicates as *sick* and *wet* can be adjunct SPs, individual-level predicates as *intelligent* and *white* cannot, leading to the ill-formed examples in (72). The ungrammaticality of DPs as adjunct predicates[11] can be also explained on these grounds, if one assumes that DPs are individual-level. Notice that in Spanish a predicative DP in a copular sentence selects obligatorily the verb *ser*, which is the copula for individual-level predicates. This fact must be related to the non occurrence of DPs as adjunct predicates.

3.3. Some Apparent Problems

Rapoport's account seems to cover the English data properly, but it is necessary to add some remarks concerning Spanish. Several examples can be found of SPs which clearly belong to the individual-level type, but cannot be considered as the predicate of a subcategorized small clause. These examples fall into two different categories: the first is the resultative construction illustrated above in (67); the second is the class of depictive predicates which occur with verbs like *comprar* (to buy), *encontrar* (to find) or *elegir* (to choose).
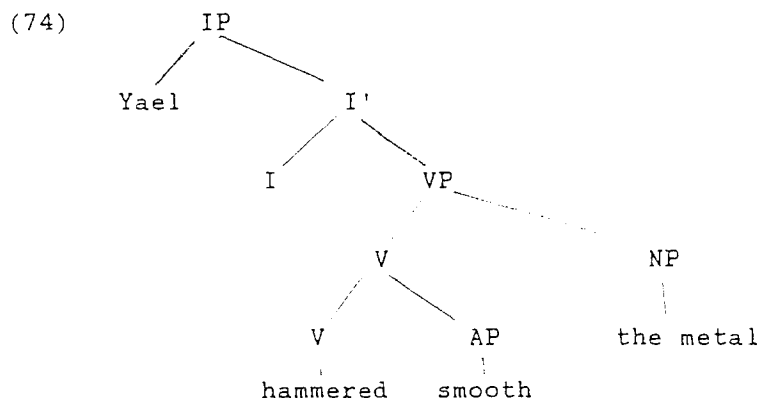

3.3.1. Resultative SPs in DPs

As for the resultative SPs, it must be noted that they can represent a counterexample to the generalization in (68) if considered as adjunct predicates. In fact, the example (67b), repeated here as (73), contains an individual-level predicate like *grande* (big), and then it should not be an adjunct:

(73) La fabricación de los tornillos *demasiado grandes*
     The making of the screws *too big*

Moreover, in section 3.1, we argued against the analysis of
Spanish resultatives as subcategorized small clauses. Then,
if it is neither an adjunct, nor a subcategorized small
clause predicate, this seems to lead us to a sort of
paradox.
     To escape this situation, one possibility could be to
adopt for DPs too Rapoport's analysis of English sentences
containing resultatives, i.e., to treat them as structures
involving a complex predicator formed by the verb and the
resultative AP. This complex predicator θ-marks the object
in a configuration such as the one in (74), taken from
Rapoport (1990:46):

(74)   IP
              /   \
          Yael   I'
                     /   \
                    I   VP
                          /   \
                         V   NP
                       /   \ |
                      V   AP   the metal
                      | |
                  hammered smooth

Within this approach the NP *the metal* still is an argument
of the verb, while the AP *smooth* is not an adjunct, being
thematically selected by the verb to form the complex
predicate. In this way, a solution could be obtained
without recourse to the concept of subcategorized small
clause, or consideration of the AP as an adjunct. Further
support for this idea comes from the fact that the formation
of complex predicates is clearly visible in German, as
pointed out by G. Brugger (personal communication), and the
same is true for Dutch:

     (75) a. Das flachhammern des Metalles (German)
          b. Het plathameren van het metaal (Dutch)
             The flat-hammering of the metal

     (76) a. Das rotstreichen des Hauses (German)
          b. Het roodverven van het huis (Dutch)
             The red-painting of the house

     A second possibility can be adapted from Demonte's
(1990) analysis of Spanish resultative constructions in
sentences. She assumes that resultatives develop the
eventive structure of the verb, and, like arguments, they
are somehow linked by the verbal head without being selected
as small clauses.

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Both analyses provide a solution for the problem raised by the occurrence of individual-level resultative predicates in DPs. On one hand, resultatives appear not to be adjuncts, so they do not fall under the generalization in (70); on the other hand, they are not canonical subcategorized small clause structures, so they are allowed to occur in DPs without violating case or government requirements, because the object DP would be θ-marked, and hence case-marked, by the head noun. In any case, the proposals in Rapoport (1990) and Demonte (1990) suggest that there are independently motivated reasons to consider some resultatives neither as adjuncts, nor as subcategorized small clauses. If so, the generalizations suggested in the previous sections can be maintained.

3.3.2. *Individual-Level Depictives*
Consider now the following example:

      (77) Lo$_i$ encontré *blanco*$_i$
           It/him (I)-found *white*

In Spanish, (77) is ambiguous: there are two possible readings, associated with the distinction between individual-level and stage-level predicates, which can be paraphrased as in (78):

      (78) a. Encontré uno que era blanco / El que encontré
             era blanco
             (I)-found one which was white / The one (I)-
             found was white
         b. Cuando lo encontré, estaba blanco
             When it/him (I)-found, it/he was white

Blanco (white) denotes a permanent property in the first reading, and in the paraphrase the copula *ser* ("permanent" *to be*) must be used. In the second reading a transitory property is adscribed to the object of *encontrar*, and the copula is this time a form of *estar* ("transitory" *to be*): imagine a situation in which someone finds/meets a person whose face has become white after a great shock.

    As mentioned above, individual-level predicates can appear as SPs with verbs like *comprar* (to buy), *encontrar* (to find), *dar* (to give) or *elegir* (to choose). Obviously, they cannot receive the same temporary interpretation of stage-level adjuncts; rather they select a subset from the set of objects denoted by the head noun of the DP: for example, suppose that in (71) --with the interpretation in (78a)-- we are speaking about a dog; then, the depictive adjunct *blanco* indicates that within the set of dogs, an individual belonging to the subset of white dogs has been picked up.

    The ungrammaticality of the examples in (72), repeated here as (79), shows that this interpretation is not available in English:

      (79) a. *Ayala bought the dog *intelligent*
          b. *Ayala cut the bread *white*

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In Spanish this interpretation is possible only with verbs which somehow imply the delimitation of subsets. In fact, the counterpart of (79a) with *comprar* (to buy) is grammatical, but the counterpart of (79b) with *cortar* (to cut) is not, as shown in (80):

(80) a. Ayala compró el perro *inteligente*
     b. *Ayala cortó el pan *blanco*

Do these facts represent a counterexample to the generalization in (70) about adjunct predicates in DPs? They do not. Interestingly enough, individual-level depictive SPs are never found in DPs; consider the following examples, built on the above mentioned verbs (they only get the interpretation in which the adjective acts as an internal modifier):

(81) a. *La compra del perro *inteligente*
        The purchase of-the dog *intelligent*
     b. *El hallazgo del perro *blanco*[11]
        The finding of-the dog *white*

The situation can then be described as follows: there are individual-level depictives in sentences, but not in DPs. The same is found with verbs like *buscar* (to search), *necesitar* (to need) or *querer* (to want), the traditional opacity-inducing verbs; in these cases, it can be maintained that they select small clauses as their complements, as pointed out by V. Demonte (personal communication). This provides a natural explanation both for the occurrence of individual-level predicates and for the ill-formedness of examples like the following, as said in section 3.1.:

(82) a. *La búsqueda del perro *inteligente*
        The search of-the dog *intelligent*
     b. *La necesidad del perro *inteligente*
        The need of-the dog *intelligent*
     c. *El deseo del perro *inteligente*
        The desire of-the dog *intelligent*

Comprar, dar or *encontrar* are not opacity-inducing verbs, but their effects on secondary predication could be related to the properties of intensional verbs in the following way: they only allow individual-level SPs when their object is not referential (i.e., when it is non-specific or denotes a type, rather than a token). This is possible if an opaque context is evoked (a desire, a need, an intention or a search). A clearly referential DP forces a stage-level interpretation of the SP, while a non-referential DP permits an individual-level reading too, as with real intensional verbs; consider the contrast in (83):

(83) a. Me compré el traje *azul*
        To-me$_{cl}$ (I-)bought the suit *blue*
     b. Me compré este traje *azul*
        To-me$_{cl}$ (I-)bought this suit *blue*

In the first example, *el traje* can be understood as non-referential (for instance, if one thinks of a previous

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desire or search for a suit): in this case the SP can be given an individual-level or a stage-level reading (as with real intensional verbs). In the second example, the presence of the demonstrative *este* forces a referential interpretation of the object and thus a stage-level reading of the SP. Some verbs, then, allow individual-level SPs when they can be related to opaque contexts in some way. However, this could not be a good reason to consider them as verbs subcategorizing small clauses. Since there is no evident way to extend the subcategorized small clause analysis to verbs such as *comprar*, a different explanation should be offered, perhaps based on some property of opaque contexts. We will not go into this issue here.

4. CONDITIONS ON SECONDARY PREDICATION

The issue we will address in this section is the existence of the same general restrictions on SPs in sentences and DPs. The conclusion we arrived at in section 2 (i.e., only LCS complements of a nominal head can be subject of a SP), can in fact be considered as part of a general principle governing secondary predication: the subject of a SP must be a θ-marked argument of the lexical head in whose domain the SP occurs.

A second general restriction, defended in several studies on secondary predication, is a configurational one:

(84) A predicate mutually m-commands its subject[33].

As it is stated in (84), the condition implies that a predicate and its subject must belong to the same maximal projection. As Nakajima (1990) says, the notion of m-command is also crucial to the assignment of θ-roles. Then, it means that θ-assignment both by a head to its arguments, and by a SP to its subject, is performed under mutual m-command.

In the case of DPs, the configurational condition always holds in an evident way, assuming that the complements θ-marked by a nominal head are introduced by prepositions that are inserted as case-markers and do not head a maximal projection. In examples like

(85) La llegada de Ernesto$_i$ *cansado*$_i$
    The arrival of Ernesto *tired*

Ernesto is not preceded by a "true" preposition, hence, it is not included in a PP and the predication coindexing between *Ernesto* and *cansado* does not violate the condition of m-command.

However, there is one case in which the condition seems to fail: it is the case of "agentive" phrases introduced by *por parte de* (*by*-phrases)[34] :

(86) a. La destrucción de los muebles por parte de Juan$_i$ *encolerizado*$_i$

The destruction of the furniture by Juan *enraged*

b. La detención del delincuente por parte de María₁ *disfrazada₁ de camarera*
The arrest of the delinquent by María *dressed of (=as a) waitress*

Spanish speakers give very controversial judgements about DPs like the ones in (86). This suggest that there are different principles operating in each case. For those who do not accept such constructions, the condition of m-command is the crucial one; those who accept them seem to put in the first place the condition of thematic domains.

Notwithstanding, a more developed explanation for the occurrence of SPs related to "*by*-phrases" could be given along the following lines. Suppose we consider (86) as well-formed structures. Even if *por parte de* is a true preposition introducing an adjunct PP, "*by*-phrases" are closely related to argument structure: Grimshaw (1990), for instance, has suggested to consider them as *argument adjuncts*. Then, one can view the "*by*-phrase" as an adjunct linked to an agentive implicit argument, in a sort of re-duplication relationship. Since we have shown (section 2.2) that implicit arguments could be subjects of SPs, it seems reasonable to suggest that the implicit argument (a θ-marked element) is the real subject of the SP. In this case, both the thematic and the configurational conditions would apply.

In section 3, we discussed other conditions on secondary predication which could be considered as general restrictions applying to sentences as well as to DPs.

First, we claimed that subcategorized small clauses cannot appear in nominals and, hence, individual-level predicates of the kind selected by verbs as *to consider* or *to declare* are impossible too. This fact constitutes a clear difference between sentences and DPs, as small clauses are perfectly possible when selected by verbs in sentences. However, it is not a failure of some general condition on secondary predication, but rather an effect of the inde-pendently motivated differences between nouns and verbs concerning government and case-marking. Then, in this case, it is not necessary to establish separate conditions on SPs for sentences and DPs.

Secondly, we stated that only stage-level predicates can be adjunct SPs in DPs. The same thing has been noticed for sentences. Some authors have tried to explain the phenomenon by assuming Kratzer's idea that stage-level predicates contain an ⟨e⟩ position in their argument structure. According to this, only stage-level predicates can appear in adjunct constructions, because they are the only ones to have an ⟨e⟩ position available for linking with the corresponding ⟨e⟩ position of the main predicate (the verb); consequently, only a stage-level predicate can be licensed by means of a connection between the two ⟨e⟩ pla-ces. On the contrary, individual-level adjuncts have no such ⟨e⟩ position, and therefore there is nothing to connect them with the main predicate; as a result, they are not licensed. However, there is a problem for the extension of this approach to Spanish sentences. As we saw, certain

verbs can accept individual-level adjuncts which need to be interpreted in a specific way. Why these verbs give rise to such an exception in sentences, but not in DPs, still remains a mystery.

To sum up, the distribution of SPs is governed by the same conditions in sentences and DPs: the structural condition on m-command, the thematic condition on LCS complements, the "aspectual" condition on agent-oriented SPs and events, and the semantic (stage-level) restriction on adjunctpredicates. The last one, which seems to hold for DPs, fails to apply to sentences, at least in Spanish. This is the only real difference between sentences and DPs; other apparent differences are due to certain intervening factors, such as the restricted government properties of nouns or the identification of a LCS-complement with R in many result nouns. In short, the number of common conditions is impor- tant enough to maintain, also with respect to secondary predication, the deep parallelism observed by many linguists between sentences and DPs as grammatical domains.

Manuel Leonetti
Dept. Filología I
Facultad de Filosofía y Letras
Universidad de Alcalá
E-28801 ALCALA DE HENARES

Vicky Escandell-Vidal
Dept. Lengua Española
UNED
c/ Senda del Rey, s/n
E-28040 MADRID

NOTES

1. We will use mostly Spanish data, with a word-by-word
English translation.

2. See Williams (1980) and (1983), Rothstein (1983) and
Napoli (1989).

3. See for example Chomsky (1981) and Stowell (1983).

4. Very little attention has been paid to this phenomenon,
either in studies about predication, or in studies about the
internal structure of DPs. To the best of our knowledge,
only in some recent work on argument structure (Safir
(1986), (1987) and (1988); Grimshaw (1986) and (1990); Roe-
per (1987); and Napoli (1989)), a tangential discussion of
SPs in DPs has arisen. Some authors have even denied their
existence (Williams (1982) for English, and Hernanz (1988)
for Spanish. However, M.L. Hernanz (personal communication)
no longer maintains her former position).

5. For instance, Hernanz (1988) and Rapoport (1990).

6. Safir (1987) suggests a similar principle, the "Adjunct
Restriction", which establishes a relationship between the
eventive nature of the head noun and the possibility of ad-
junct-modify an English prenominal genitive NP.

7. Among the tests used to distinguish the event/process
reading from the result reading, the following can be
mentioned: only result nouns can appear in plural, with
determiners other than *the* (i.e., demonstratives *this, that,*
or indefinite *a(n)*), and can have postnominal modifiers like
of John's.

8. As for internal structure of DPs, we broadly assume the
distinctions between *subject of NP* and *object of NP* first
introduced in Cinque (1980), and developed in Giorgi &
Longobardi (1991), among others.

9. In standard Spanish, "by-phrases" are introduced by *por
parte de* in nominals, and by *por* in sentences.

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10. We follow Giorgi & Longobardi (1991) and many earlier accounts in considering the preposition as a case-marker, instead of the head of a true PP.

11. Actually, it is not always possible to have the internal argument as a possessive even when the external argument is not lexically present:
    i)   ?Hablando de Skinner, su_{ᵢₗₗₗₗ} crítica...
        As for Skinner, his criticism...
    ii) ?Hablando de Julio Iglesias, su_{ᵢₗₗₗₗ} imitación...
        As for Julio Iglesias, his imitation...
See Escandell-Vidal (1991) for a discussion of this issue.

12. Some speakers, and for a small subset of nouns, accept easily the event reading, even with the "active" structure; in these cases the DP itself is still syntactically ambiguous, but the condition on the non-possessivization of the internal argument seems to hold:
    i)   La descripción de Juan$_i$, de María$_h$
         The description of Juan of María
    ii)   Su$_i$, descripción de María$_h$
         His description of María
    iii) *Su$_h$ descripción de Juan$_i$,
         Her description of Juan

13. Picallo (1991) presents the following arguments:
    a) only ergative "subjects" may appear as bare plurals;
    b) agent nominalizations are only possible with intransitives;
    c) so-called referential adjectives can only "substitute" external arguments: they are, then, impossible with ergative nominalizations.

14. For some speakers, a predicative reading for the AP *nerviosos* is impossible, while it seems perfectly acceptable for others. We will discuss the problem of "by-phrases" as subjects of predication in section 4.

15. We use the term *implicit argument* in a theory-neutral way, without committing ourselves to any proposal concerning their syntactic status. For further discussion, see Williams (1985), Roeper (1987), Safir (1987), and Giorgi & Longobardi (1991), among others.

16. For clarity's sake, we will use the standard notation for empty categories to represent implicit arguments. Conventionally, agent implicit arguments will appear in the prenominal position, while theme implicit arguments will be in the postnominal position.

17. In this example, the predicative AP shows masculine and singular agreement features, which are the default values for arbitrary elements in Spanish. In Italian, the corresponding default features are masculine and plural. As expected, the Italian translation of this example adopts these features for arbitrary interpertation:
    i)   La presentazione davanti al capitano *mal rasati*_{ᵢₗₗₛₑᵢₗᵤ} è motivo di punizione

18. We use here the dislocated construction with an accusat-
ive clitic to show the predicative reading and avoid the
possibility of understanding *barato* (cheap) as a restrictive
modifier. C. Picallo (personal communication) has pointed
out, that the clitic system of Catalan makes the distinction
even clearer. When the AP is a predicative and the direct
object is cliticized, the SP can be represented by the
special clitic *hi*, as in ii): if the AP, on the contrary, is
a modifier, only the accusative clitic can appear, as in
iii).
> i)   Va comprar el vestit barat
>   (She/he)-bought the dress cheap
> ii) L'hi va comprar
>   It HI$_{cl}$ (she/he)-bought (SP reading)
> iii) El va comprar
>   It (she/he)-bought (internal modifier reading)

19. We owe this example to I. Bosque.

20. In this example, the context imposes the interpretation
of *cena* as a concrete object. If an eventive reading were
forced, then the sentence would be well formed:
> i)   Fue divertida la cena de Juan *en pijama*
>   (It)-was funny the dinner of Juan *in pyjamas*

21. We owe to A.-M. Di Sciullo the suggestion that inalien-
able possession constructions involve a sort of diadic
predicate which links the "possessor" and the "possessed"
element.

22. In Napoli (1989: 163) a similar constraint is stated:
>   "If a secondary predicate is within the theta-do-
>   main of a lexical item H, its subject role player
>   must appear in the lexical structure of H."

In her theory, it is still valid for DPs, since nominal
heads act as primary predicates (See her examples in pp.
104-105). However, we depart form her assumptions in two
essential points: we do not consider "*as-phrases*" as typical
examples of SPs, as she does; and we use the term *event* in
a more restricted way, following Grimshaw (1990).

23. See Chomsky (1970), Higginbotham (1985), Safir (1986)
and (1987), Zubizarreta (1987), and Grimshaw (1990), among
others.

24. We are adopting here a proposal by G. Cinque and G.
Longobardi for certain similar constructions.

25. It should be added that all the examples of SPs in DPs
we have seen up to now demonstrate that there can be pre-
dication relations inside DPs, and that these are compatible
with the requirements of Williams' theory of predication:
predicates must be maximal projections which need to be
saturated.

26. On the distinction between resultatives and depictives
in Spanish, see Demonte (1988) and (1990). For English
resultatives, see Hoekstra (1988).

27. Notice that this restriction is not derived from a more general prohibition against the use of DPs as predicates. In fact, DPs can be predicates in copular structures, as in i), or in subcategorized small clauses, as in ii):
    i)   Juan es su marido
          John is her husband
   ii)   Te creía su marido
          You$_{CL}$ (I)-believe her husband

28. The strategy to avoid ungrammatical results consists in the insertion of the preposition *como* (the equivalent to English *as*) before the predicate of the small clause, especially if it is a nominal predicate. The same seems to be true for English:
    i)   Her election *(as) a treasurer
Emonds (1984) suggests that "non-comparative *as*" is in these cases the prepositional counterpart of a copular verb, and is followed by a predicate DP:
    ii)   John as Hamlet would be a poor choice
It is still unclear how the insertion of *como* makes Case available for the subject DP; we can just say that it permits to circumvent the restriction on DP predicates, changing their categorial status to PPs.
However, the complement of elective verbs, like *elegir* and *nombrar*, has different properties in Spanish:
   iii) La elección de Pérez (diputado)
       The election of Pérez (deputy)
   iv) El nombramiento de Pérez (alcalde)
       The nomination of Pérez (major)
This suggests perhaps that a small clause analysis is not adequate for such verbs, and that bare NPs behave as adjectives.

29. The original distiction has been further developed by Diesing (1988) and Kratzer (1988).

30. Rothstein (1983) and Hernanz (1988) reach the same conclusion, but using different terms. Rothstein notes that adjunct predicates atribute a temporary property to the entity denoted by their subject DP. Hernanz uses aspectual features like [± perfective] instead of Carlson's distinction between stage-level and individual-level predicates, but she gives an explanation very similar to Rapoport's.

31. See the generalization in (68).

32. Besides the restrictive reading, the adjective *blanco* (white) can have a predicative reading, but only as a stage-level predicate, not as an individual-level one.

33. The condition is taken from Nakajima (1990:287). See also Demonte (1988).

34. Their status is still quite controversial. See Zubizarreta (1987), Zucchi (1988) and Grimshaw (1990) for different approaches. On predication and "*by*-phrases" in Spanish, see Demonte (1986).

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