Some Remarks on De-adjectival Verbs and Resultative Secondary Predicates*

Silvia Gumiel Molina
Universidad de Alcalá. Departamento de Filología
Edificio S. José de Caracciolos. Trinidad, 5. 28801 Alcalá de Henares (Madrid)
dtl3@cervantes.es

Isabel Nieto Herranz
Universidad Autónoma de Madrid. Departamento de Filología Inglesa
Cantoblanco. 28049 Madrid
isabelnieto@mx3.redestb.es

Isabel Pérez Jiménez
I.U. Ortega y Gasset/Universidad Autónoma de Madrid
Departamento de Lingüística Teórica/Departamento de Lengua Española
Fortuny, 53. 28010 Madrid/Cantoblanco. 28049 Madrid
isabel.perez@uam.es

Received: December 13th 1998
Accepted: March 17th 1999

Abstract

The major aim of this paper consists in showing that de-adjectival verbs like *engordar* (<en+adjective+ar>, 'fatten'), *agrandar* (<a+adjective+ar>, 'enlarge') and *ampliar* (<null affix+adjective+ar>, 'widen'), share some crucial properties with resultative secondary predicates (*Mary pounded the metal flat*). A detailed analysis of these constructions seems to indicate that de-adjectival verbs and resultative secondary predicates share a common structure. The structure that we propose for de-adjectival verbs and constructions with resultative secondary predicates is the one suggested by Hale and Keyser for denominal location verbs (*bottle, can)* and by Hale and Keyser (1991, 1992) and Romero (1997), among others, for basic ditransitive constructions (*John gave the book to Mary)*. This hypothesis allows us to explain some co-occurrence restrictions, for example the impossibility of having resultative secondary predicates and Goal arguments with denominal and de-adjectival verbs.

Key words: de-adjectival verb, resultative secondary predicate, argument structure, complex predicates, goal arguments, event delimiters.

* We are in debt with all the people who helped us to improve this paper in any of its stages: Adolfo Ausín, Ignacio Bosque, Violeta Demonte, Luis Eguren, Olga Fernández, Howard Lasnik, Manuel Leonetti, Luisa Martí, Montse Pascual, Pilar Pérez, Juan Romero and William Snyder. We would like to thank very specially Norberto Moreno for his invaluable help (and for the funny trip around Barcelona). Earlier versions of this paper were presented at the *XXVIII Simposio de la Sociedad Española de Lingüística* (Madrid, December 1998), and at the *III Congreso de la Sociedad Andaluza de Lingüística General* (Sevilla, March 1999). We want to thank the audiences of these meetings for useful suggestions. Any remaining errors are our responsibility. The research that underlies this work has been partially supported by a grant of the *Dirección General Científica y Técnica* (PB95-0178) for Isabel Pérez and by a grant of the *Universidad de Alcalá* for Silvia Gumiel.

Resum. *Algunes observacions sobre els verbs deadjectivals i els predicats secundaris resultatius*

L'objectiu d'aquest article és demostrar que els verbs deadjectivals com *engordar* (<en+adjectiu+ar>, 'fatten'), *agrandar* (<a+adjectiu+ar>, 'enlarge') i *ampliar* (<afix nul+adjectiu+ar>, 'widen'), comparteixen algunes propietats crucials amb els predicats secundaris resultatius *(Mary pounded the metal flat).* Aquestes semblances ens permeten proposar que els verbs deadjectivals i els predicats secundaris resultatius comparteixen una mateixa estructura. L'estructura que proposem per a aquestes construccions és la suggerida per Hale & Keyser per als verbs locatius denominals *(bottle, can)* i per Hale & Keyser (1991, 1992) i Romero (1997), entre d'altres, per a les construccions datives ditransitives bàsiques. Aquesta hipòtesi ens permet explicar algunes restriccions de coaparició, per exemple la impossibilitat de tenir predicats secundaris resultatius i arguments meta amb verbs denominals i verbs deadjectivals.

Paraules clau: verb deadjectival, predicat secundari resultatiu, estructura argumental, predicats complexos, arguments meta, delimitadors d'esdeveniments.

Table of Contents

1. Introduction

In this paper, we will deal with de-adjectival verbs of the type shown in (1). These verbs are formed by the paradigms <*en*+adjective+*ar*>, <*a*+adjective+*ar*> and <*null affix*+adjective+*ar*>. We will explore the parallelism between these verbs and constructions with resultative secondary predicates found in Germanic languages of the type shown in (2).

(1) De-adjectival verbs:

en+adjective+*ar*	*en*-gord-*ar* ('fatten')
a+adjective+*ar*	*a*-floj-*ar* ('loosen')
null affix+adjective+*ar*	espes-*ar* ('thicken') ampli-*ar* ('enlarge')

(2) Resultative secondary predicates: John pounded the metal flat.

We will propose that Hale and Keyser's structure for denominal location verbs[1] *(bottle, shelve, jail, encircle, entrain* -Hackbeil 1986) can also be adopted to describe a number of properties of de-adjectival verbs and constructions with Resultative Secondary Predicates. The same structure has also been proposed for basic ditransitive constructions like *John showed the dog to Mary, John gave the book to Mary* (Hale and Keyser 1991, 1992; Romero 1997). This proposal will allow us to explain some common properties of these constructions on configurational grounds.

We will also claim, on the light of some facts concerning quantification, that the process that forms those predicates can be considered as a syntactic process. We follow the proposal made by Hartley (1995) and by Chomsky (1993: footnote 18), who suggest that it does not seem necessary to establish any differences between operations of the Lexical Relational Structure, in a model like Hale and Keyser's, and syntactic operations of predicate formation.

The paper is structured as follows: in section 2, Hale and Keyser's proposal for denominal and de-adjectival verbs is presented. In section 3 we will show that the structure proposed by Hale and Keyser for denominal verbs can be also proposed for de-adjectival verbs and Resultative Secondary Predicates. Section 4 provides a syntactic account of some properties of these constructions that have been accounted for by proposing lexical or semantic constraints, namely: *(i)* their identical basic meaning; *(ii)* the fact that both de-adjectival verbs and Resultative Secondary Predicates are formed from stage level predicates; *(iii)* the Direct Object Restriction; *(iv)* the fact that Goal arguments cannot occur in these constructions; and *(v)* some scope facts with adverbials like *almost* or <*during* + temporal expression>. We will show that these properties can be derived from the structures we suggest and can be explained on configurational grounds. In section 6, we explore some predictions that arise from our proposal. Finally, in section 7 we sum up some conclusions and present prospects for further investigations.

2. Hale and Keyser's Proposal for Denominal and De-adjectival Verbs

In several papers, Hale and Keyser have argued that lexical items project particular syntactic configurations, called Lexical Relational Structures, that define their basic meaning and their argument structure. These configurations are those permitted by basic syntactic relations, namely head-complement and head-specifier. The configurations so established determine the syntactic projection of the arguments of the head.

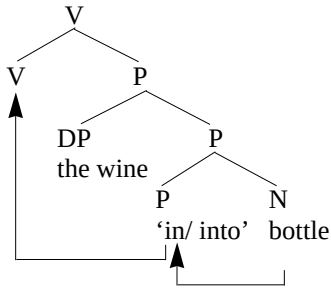
In this model, predicates are derived from Lexical Relational Structures by means of a process similar to Incorporation (in the sense of Baker 1988, 1995), called Conflation. This process of sub-lexical head incorporation obeys the same syntactic constraints which regulate the application of head movement in syntax.

1. Vid. Moreno and Romero (forthcoming) for a revision of Hale and Keyser's structures for *locatio* and *locatum* verbs.

Conflated predicates project as atomic elements in syntax so that the derived positions of conflated sub-lexical heads are invisible at the syntactic component. On the contrary, argument positions in the Lexical Relational Structure have to be saturated in syntax.

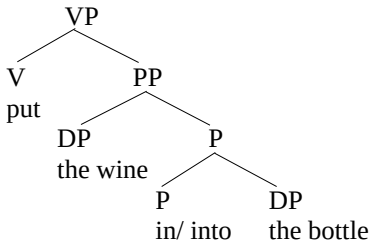
Hale and Keyser propose the structure depicted in (3a) for denominal location verbs like *shelve* or *bottle*, and the one in (4a) for de-adjectival verbs like *fatten* or *clear*. In (3b) and (4b) the structures of corresponding analytic constructions are shown.

(3) a. Denominal location verbs: *shelve, bottle, jail, encircle, entrain.*
John bottled the wine.

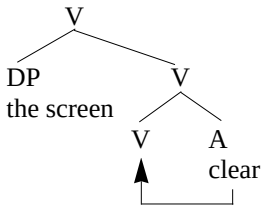


Preposition: [+ Complement, + Subject]

b. Analytic construction: John put the wine {in/ into} the bottle.

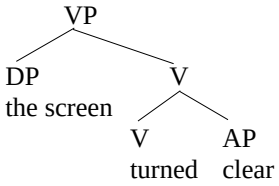


(4) a. De-adjectival verbs: *fatten, clear, narrow, thicken, shorten, enlarge.*
The screen cleared.



Adjective: [- Complement, + Subject]

b. Analytic construction: The screen turned clear.



As shown in (3), the configuration projected by a denominal verb like *bottle*, (3a), is similar to the structure of the analytic construction under (3b) *put the wine in the bottle*. The noun *bottle* generates in the complement position of the preposition. This noun conflates/incorporates into the empty prepositional head, and the complex <P+N> conflates into the empty verb position. The result of this cyclic incorporation process is the denominal location verb *bottle*. The empty prepositional head, an intrinsically relational element, is the preposition of *terminal coincidence*, similar to the English locative preposition *in* (or *into*, Hale and Keyser 1991). The specifier of the preposition surfaces in syntax as the internal argument of the verb *(John bottled the wine).*

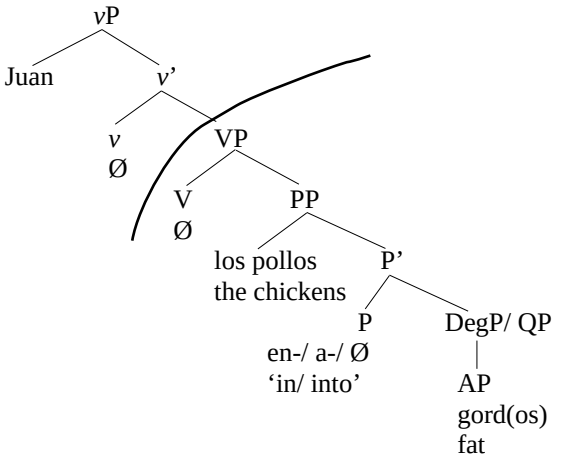
As shown in (4), the configuration projected by a de-adjectival verb like *clear*, (4a), is similar to the structure of the analytic construction shown in (4b) *The screen turned clear*. The verbal head selects for an adjectival head as its complement. In Hale and Keyser's theory, adjectives are defined by their selectional properties: [- complement, + subject]. Since the adjective does not select for a complement, it merges directly with the verb. The specifier of the adjective must then be projected in a parasitic way as a specifier of the verb. The adjective conflates/incorporates into the verb, and the result of this conflation process is the formation of the de-adjectival verb *clear*, as in the sentence *The screen cleared* (further embedding of this structure to a light causative verb results in the causative variant of the verb: *John cleared the screen).*

3. The Proposal: Syntactic Structure for Resultative Secondary Predicates and De-adjectival Verbs

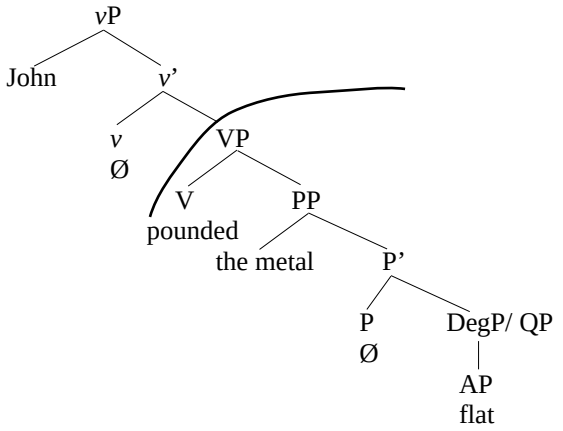
In this section we claim that the structure proposed by Hale and Keyser for denominal location verbs, depicted in (3a), can also account for the formation of de-adjectival verbs like *engordar* ('fatten'), *aflojar* ('loosen'), and *espesar* ('thicken') and also for the formation of constructions with resultative secondary predicates like *John pounded the metal flat*. Some common properties of these constructions will be accounted for on the basis of their identical structure.

The structures that we propose for de-adjectival verbs and constructions with resultative secondary predicates are those depicted in (5) and (6):

(5) De-adjectival Verbs
Engordar ('fatten'): Juan engordó los pollos ('Juan fattened the chickens.')



(6) Resultative Secondary Predicates: John pounded the metal flat.



The relevant properties of these structures are the following: *(i)* the verb selects for a prepositional phrase with locative meaning as its complement, and the DP internal argument generates in the specifier of the prepositional phrase; *(ii)* the adjective generates as complement of the preposition, in the position where Goal and Location arguments are generated. This claim entails that the adjective, as it is the case with Goal arguments, is the element that delimits the event denoted by the verb in de-adjectival verbs and constructions with resultatives, as Tenny (1992) points out.[2]

2. As we have said, Hale and Keyser define adjectives by their selectional properties: [-complement, + subject]. From this point of view, forms like *proud* in *proud of his son* are not adjectives, since they select for a complement (Hale and Keyser, 1998). In the syntactic approach we are adopting

The preposition can be thought of as the preposition of terminal coincidence, similar to English *in, into* or Spanish *en.* Following Hackbeil (1986), we will assume that in the case of de-adjectival verbs, the prefix *en-/ a-* can be conceived as an allomorph of its prepositional counterpart. It is a prepositional head that must be phonetically linked to another element. This preposition selects for a location as its complement. Adjectives are then considered as abstract locations, following Jackendoff (1972, 1990).

The process of formation of de-adjectival verbs is also shown in the structure in (5). The adjective incorporates into the preposition, and the complex <adjective+preposition> raises to the verb.[3] This movement is triggered by the need of the empty verb to be supplied with a phonological matrix in order to receive an interpretation at PF and satisfy Full Interpretation at this level (Hale and Keyser, 1998). This phonological requirement for visible movement is absent in the case of constructions with secondary predicates in English, since the verb has its own phonological matrix.

4. Similarities Between De-adjectival Verbs and Constructions with Resultatives Based on Their Identical Structure

In this section, we provide a syntactic account for some properties of de-adjectival verbs and constructions with resultatives that have been explained by proposing lexical or semantic constraints. We will show that the following properties can be derived from the structures we have suggested in (5) and (6): *(i)* de-adjectival verbs and constructions with resultative secondary predicates share an identical basic meaning, *(ii)* only stage level predicates are involved in these constructions, *(iii)* the Direct Object Restriction formulated by Simpson (1993) for resultative secondary predicates is also operative in the case of de-adjectival verbs, *(iv)* the impossibility of co-occurrence with Goal arguments and *(v)* some scope facts concerning adverbs like *almost* or <*during* + temporal expression>.[4]

---

in this paper, we have to explain cases like: *ahondar en* ('deepen in'), *igualar a* ('to make equal to') in which the adjective seems to have incorporated into the verb leaving its complement stranded. For other cases in which a head incorporates to another head leaving its complement behind see Weir (1986) and Bosque (1999).

3. There might be cases of *visible* incorporation of the type studied by Baker (1988) in which the noun incorporates into a preposition, the combination then moving on to adjoin to the verb, so that each of the heads is *visible* in the morphological make-up of the verb word. This seems to be the case in Navajo, and also in the Spanish <preposition+noun> compounds (vid. Moreno and Romero, forthcoming).

4. In section 5 we will consider the observation that de-adjectival verbs and constructions with resultative secondary predicates behave differently with respect to the licensing of degree verbal adjuncts. We will show that this different behavior follows from facts that are independent from the structures proposed.

4.1. Identical Basic Meaning

Following Hale and Keyser we accept that the basic meaning of elements and constructions is basically configurational. If this is the case, the proposal of an identical structure with a locative prepositional phrase for denominal verbs, de-adjectival verbs and constructions with resultatives explains why all of them share a basic meaning: change of location/state. Following Jackendoff (1972, 1990) we assume that in the case of de-adjectival verbs and resultative predicates, the locative interpretation of the adjective is basic. If this is the case, an unified account of denominal and de-adjectival verbs may be sustained in terms of a location relationship.

4.2. Only Stage Level Adjectives Can Occur in These Constructions

The fact that the prepositions involved in de-adjectival verbs and constructions with resultatives select a locative complement explains on syntactic grounds why the adjectives involved in these constructions can only be stage level adjectives. Resultative secondary predicates are always stage level predicates. Also de-adjectival verbs are built from stage level adjectives. These verbs are ungrammatical if formed from individual level adjectives like *modesto* ('modest'), *veloz* ('fast'), *honesto* ('honest'), as we can see in (7). When the de-adjectival verb is formed from an adjective that is ambiguous in the lexicon between a stage level and an individual level reading, the stage level reading is selected in the de-adjectival verb, as we see in (8). The adjective *flojo* ('loose') has two meanings. The individual level meaning is something like 'poor', 'not very well done'. The stage level meaning is 'loose'. The de-adjectival verb *aflojar* ('loosen') can only mean 'make loose', not 'make poor'. Therefore, a sentence like (8a) * *El trabajo es tan flojo que no es posible aflojarlo más* ('The paper is so poor that it is impossible to make it poorer') is ungrammatical.

(7) * enmodestar, * envelozar, * honestar
(make/become) modest, fast, honest

(8) flojo → aflojar: (loose → loosen)

a. individual level meaning: 'poor', 'not very well done'.
* El trabajo es tan flojo que no es posible aflojarlo más.
the paper is so poor that not is possible make poor it more
'The paper is so poor that it is impossible to make it poorer.'

b. stage level meaning: 'loose'.
El tornillo no está flojo, aflójalo.
the screw not is loose loosen it
'The screw is not loose, please loosen it.'

4.3. The Direct Object Restriction

The structures proposed in (5) and (6) can also explain some of the syntactic similarities between resultatives and de-adjectival verbs, besides explaining on confi-

gurational grounds their similar basic meaning, and the fact that only stage level adjectives are involved in these constructions, as we have seen.

Let us consider the examples in (9):

(9) a. Mary pounded the metal flat.

b. El granjero engordó los pollos.
the farmer fattened the chickens
'The farmer fattened the chickens.'

(9a) illustrates the so-called Direct Object Restriction. Simpson (1983) formulated this restriction as a lexical constraint, pointing out that the resultative secondary predicate *(flat)* can only be predicated of the internal argument with the Theme theta-role *(the metal)*. Thus, (9a) cannot be interpreted as «Mary pounded the metal and as a result Mary became flat». Also in the case of de-adjectival verbs of *change of state*, the internal argument is the argument involved in that change. Therefore, as illustrated in (9b), the property denoted by the adjective *within* the verb can only be predicated of the internal argument *(los pollos* 'the chickens') and never of the external argument *(el granjero* 'the farmer'). There seems to be, then, a predication relationship between the adjective and the DP internal argument in both constructions.

Following Williams (1980), we take predication relationships to be based in a mutual m-command configuration between the elements involved. The mutual m-command configuration necessary to establish the predication relationship between the adjective and the internal argument in the case of de-adjectival verbs and construction with resultatives, follows from the structures in (5) and (6). We can explain the Direct Object Restriction, operative in both cases, on configurational grounds.

4.4. Impossibility of Co-occurrence with Goal Arguments

Consider now the examples in (10):

(10) a. *The girl showed her dog to John $_{\text{GOAL}}$ crazy.

b. *John put the picture in this room $_{\text{GOAL}}$ ruined.

(11) *Juan engordó los pollos a María $_{\text{GOAL.}}$
Juan fattened the chickens to María
'Juan fattened the chickens to María $_{\text{GOAL.}}$'

Goldberg (1991) notes that there is a constraint against resultatives and Goal phrases occurring together. Example (10a), a basic ditransitive dative structure, shows this fact. Resultative predicates cannot occur in ditransitive structures (neither being predicated of the Goal, the subject, nor of the Theme internal argument). (10b) illustrates the same fact with a ditransitive locative structure. To account for

this co-occurrence restriction, Goldberg interprets resultatives as abstract locations (as we did more generally with stage level adjectives, following Jackendoff) and formulates the Unique Path Constraint. This semantic constraint essentially states that «an NP cannot be predicated to move to two distinct locations at any given time t.» (1991: 368) The ungrammaticality of (10a) and (10b) stems from the fact that two goals co-occur in these sentences.

The same generalization is also valid in the case of de-adjectival verbs, as we see in (11). The presence of a Goal argument makes the sentence ungrammatical[5].

Our proposal can explain this restriction on syntactic grounds, without postulating any lexical or semantic constraint. The structure that we propose for resultatives and de-adjectival verbs is the same that has been proposed for Basic Ditransitive Constructions by Hale and Keyser (1991, 1992) and Romero (1997), depicted in (12). Therefore, we predict that *(i)* Goals are incompatible with resultative predicates since both of them generate in the same position, and *(ii)* Goals are incompatible with de-adjectival verbs since the adjective from which the verb is built up generates in the same position as Goal arguments do.[6] This fact provides

5. Note, however, that dative clitics can occur with de-adjectival verbs, as shown in (i). In these cases clitics are interpreted as benefactives or as inherent possession datives, never as Goal arguments (Demonte, 1994: 557). For an analysis of the different properties of Goal arguments and benefactives, vid. Gruber (1971).

   (i) a. Juan le engordó los pollos a María.
   Juan her-dat-clitic fattened the chickens to María
   'Juan fattened the chickens to María.'

   b. Juan te alisó el pelo.
   Juan you-dat-clitic smoothed the hair
   'Juan smoothed your hair.'

6. Tenny (1987) accounted for this co-occurrence restriction by arguing that resultatives (and also Goals) act as event delimiters and that a clause can only be delimited once. This claim is used to account for the non occurrence of resultatives with verbs that are inherently delimited (accomplishments, achievements) like *arrive.* However, it must be noted that some verbs that are inherently delimited (as *freeze, break* and many other unaccusatives) are compatible with resultative predicates as in (i).

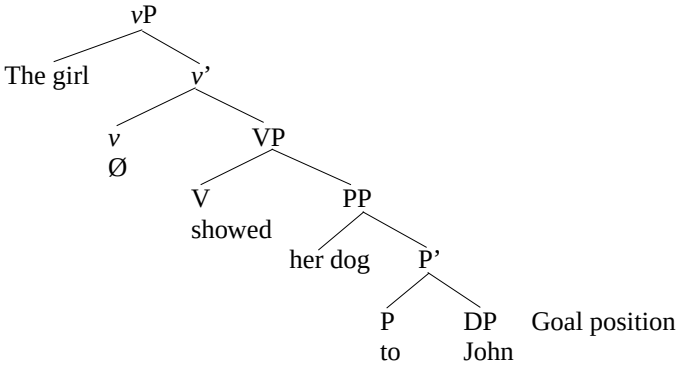
   (i) The river froze solid.
   The bottle broke open.
   The door closed shut.

   However, as Levin and Rappaport (1995) and Tortora (1998) among others, have pointed out, in these cases, the resultative acts as a further specification of the resulting state already specified in the meaning of the verb. These verbs are already delimited and the presence of true resultatives is forbidden because they are also delimiters. The secondary predicates that occur with these verbs are not delimiters (not true resultatives) but a further specification of the final state already codified in the verb. From the point of view we are defending in this paper, they are not resultatives generated in Goal position. Note, incidentally, that an example like *The lake froze solid* is well-formed; however, a sentence like **The lake froze dark* is not well-formed although there is nothing pragmatically incoherent with a lake becoming dark as a result of its freezing. Note also that sentences like those under (ii) are grammatical as long as one of the resultatives is understood as a further specification of the other:

   (ii) He nailed the door closed shut. (Goldberg, 1991: 371)
   The wizard made the water frozen solid.

a strong argument for the thesis that de-adjectival verbs and resultative secondary predicates are formed in syntax.

(12) The girl showed her dog to John.



4.5. Scope Facts

Adverbials such as *almost/casi* ('almost') or <*during* + temporal expression> give rise to similar scope ambiguities when construed with de-adjectival verbs or constructions with resultative secondary predicates. Pustejovsky (1991), among others, noted these similarities and argued that this fact stems from the fact that these constructions share a similar event structure.

According to the syntactic point of view that we are adopting in this paper, adverbial scope ambiguities are determined by the different c-command relationships that are established depending on the place where the adverbs merge in the structure. The scope facts we deal with in this section can then be derived from the structures proposed in (5) and (6).

Let us look at the examples in (13) and (14). These examples show the scope ambiguities that arise with the adverb *almost/casi* ('almost').

(13) Mary *almost* pounded the metal flat.
   a. *almost* modifies the beginning of the event: Mary almost caused the metal to become flat.
   b. *almost* modifies the final state: Mary caused the metal to become almost flat.

(14) {Juan / La humedad} casi alisó tu hermoso pelo rizado.
Juan the humidity almost smoothed your beautiful hair curly
'{Juan / Humidity} almost smoothed down your beautiful curly hair.'
   a. *casi* modifies the beginning of the event: The humidity almost caused your hair to become straight.
   b. *casi* modifies the final state: The humidity caused your hair to become almost straight.

(13) has two interpretations depending on the scope of the adverbial *almost*. In the first one, (13a), *almost* has scope over the beginning of the event. In the second one, (13b), the adverbial has scope over the resulting state. Both interpretations are also obtained with de-adjectival verbs, as it is shown in (14). In one of the interpretations, (14a), the adverb modifies the beginning of the event. In the other, (14b), the adverb has scope over the resulting state denoted by the de-adjectival verb.

Consider now examples (15) and (16). These examples show the scope ambiguities that arise with the adverbial construction <*during* + temporal expression> *(during the summer)*. This adverbial construction can refer to some temporal interval within which the event denoted by the verb takes place. It can also modify the final state denoted by the verb, indicating how long this resulting state lasts.

(15) John watered the tulips flat during the summer.

(16) La tormenta alisó tu hermoso pelo rizado durante la
the storm smoothened your beautiful hair curly during the
estancia en la isla.
stay in the island
'The storm smoothened down your beautiful curly hair during your stay on the island.'

In (15) the adverbial expression *during the summer* can be interpreted as modifying the event of watering or as modifying the final state, indicating how long the tulips were flat.[7] This difference in interpretation can be explained by proposing that the adverbial generates in different positions in the structure in each case. The same ambiguity is found with de-adjectival verbs. In (16) the adverbial can modify either the process of smoothening down, indicating the moment when it took place (the event took place when you were on the island), or the final state (being straight) indicating its length (your hair remained straight during the period of time you stayed there).

Scope ambiguities are then considered from a syntactic point of view as a consequence of the different c-command relationship established between some element and an adverb, depending on the place where the adverb merges in the structure. The facts shown in (15) and (16) can be explained on configurational grounds.[8] Since we have proposed the same structure for de-adjectival verbs and constructions with resultative secondary predicates, their similar behavior concerning scope facts

7. Some speakers seem to have trouble to get the second reading in some of the examples. We do not have any suggestion for this fact.
8. However, Chris Kennedy (p.c.) points out that some de-adjectival verbs like *shorten* do not exhibit scope ambiguities with adverbs like *almost*. A sentence like *John shortened the talk* can only mean «The talk is shorter now than before», but it cannot mean that «The talk is short». Vid. Tenny (1987) where it is suggested that the difference between this kind of de-adjectival verbs and those that permit ambiguities seems to lie on the kind of adjective from which the verb is built up.

shown in (13-14) and (15-16) can be accounted for by proposing that the adverbials are associated in the structure with the same nodes in both cases.

5. Differences Between De-adjectival Verbs and Constructions with Resultatives are not Configurational in Nature: The Inherent Quantification Phenomenon

So far we have explained on syntactic grounds some similarities between de-adjectival verbs and constructions with Resultative Secondary Predicates. In this section, we will deal with the observation that de-adjectival verbs and constructions with resultatives behave differently with respect to the licensing of degree verbal adjuncts.[9] We will propose that this different behavior does not rest on configurational grounds and can be accounted for independently.

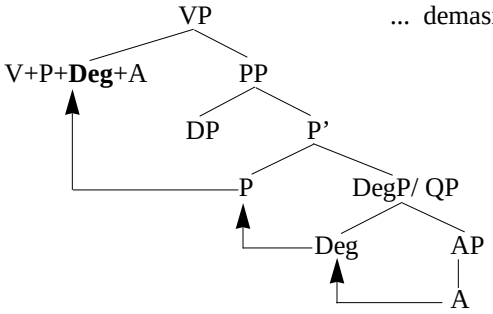
Consider the example depicted in (17):

(17) Juan endulzó demasiado el café.
Juan sweetened too much the coffee
'Juan sweetened the coffee too much.'

In the example under (17), the verbal adjunct —a degree quantifier— *demasiado* ('too much'), quantifies over the property conceived as the resulting state of the action, not over the action itself. So the sentence means something like 'John caused the coffee to be too sweet', but not 'John accomplished too much the action of causing the coffee to be sweet'.

Note, however, as Bosque and Masullo (1996:12) point out, that verbs are not gradable or non gradable *per se*. According to Bosque and Masullo, the verbal adjunct modifies a gradable element inside the predicate structure, namely the innermost embedded gradable predicate in the structure. According to the structure proposed in (5), in the case of de-adjectival verbs of the type we are dealing with, this predicate is the gradable stage level adjective. The proposal is that the verbal adjunct is licensed by a Degree head generated above the AP in the structure once it has incorporated into the verb, as we see in (18).

(18)



9. For an extensive study of this issue vid. Bosque and Masullo (1996).

As Bosque and Masullo (1996: 33) claim, the fact that an adjunct can syntactically *see* inside the predicate is incompatible with an orthodox version of Hale and Keyser's model or with other model that assumes the atomicity of the word, because syntactic processes are not allowed to have direct access to the sublexical structure of items. Therefore, the observation that some adjuncts can be licensed by a sublexical head could be indicating that predicates (in this case de-adjectival verbs) are formed in syntax.

We must explain now why we do not have inherent quantification with resultative predicates, as the ungrammaticality of (19) shows.

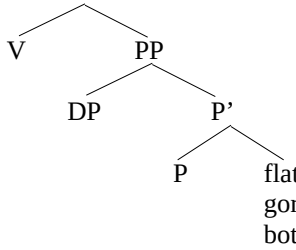
(19) * John pounded the metal flat too much.

Bosque and Masullo point out that in order to license a verbal degree adjunct, the verb must have the degree head incorporated. This seems to be the explanation of the ungrammaticality of (19), since the adjective *flat*, and therefore the degree head that accounts for its gradability, is not incorporated into the verb, and, therefore, the degree quantifier is not licensed. This explanation seems to be fully compatible with our proposal of an identical structure for de-adjectival verbs and constructions with resultative secondary predicates.

6. Predictions

In this paper we have claimed that resultative secondary predicates generate in the same position as nouns and adjectives that give rise to denominal and de-adjectival verbs in a structure like the one shown in (20):

(20) *v*.... VP



flat	John pounded the metal flat.
gord(os)	Juan engordó los pollos.
bottle	John bottled the wine.

Our hypothesis predicts the impossibility of having resultative secondary predicates with denominal verbs, since the noun from which the verb is formed and the secondary predicate are generated in the same position. As we see in (21) this prediction is borne out. (These examples are ungrammatical with resultative interpretation of the adjective.)

(21) a. *John bottled the wine sour.

b. *John jailed the prisoners dead.

c. *John canned the peas rotten.

Our proposal also predicts that resultative secondary predicates will not co-occur with de-adjectival verbs, since the adjective from which the verb is built up and the secondary predicate are generated in the same position. This is precisely what we find, as we can see in (22):

(22) a. *Mary fattened the chickens dead.

b. *I thickened the sauce solid.

It is also predicted that two distinct resultative phrases cannot co-occur, as we see in (23). However, the co-occurrence of two resultatives is possible, as we said before (see note 6), as long as the second one is interpreted as a further specification of the first one.[10]

(23) a. *She kicked him bloody dead.

b. *He wiped the table dry clean.

7. Conclusions and Further Investigations

To sum up, in this paper we have claimed that the structure proposed by Hale and Keyser for denominal location verbs and by Hale and Keyser (1991, 1992) and Romero (1997) for basic ditransitive constructions is also valid for de-adjectival verbs like *engordar, alargar, ampliar* and for constructions with resultative secondary predicates. This hypothesis has allowed us to explain:

— The fact that denominal verbs, de-adjectival verbs and constructions with resultatives share a basic meaning of «change».
— The impossibility of having Goal arguments in these structures.
— The fact that the Direct Object Restriction seems to be operative in these constructions.
— Some scope ambiguities with certain adverbs.

We have also proposed that the differences between de-adjectival verbs and constructions with resultatives —for example the fact that degree verbal adjuncts are licensed by de-adjectival verbs but not by verbs in constructions with resultatives— do not rest on configurational grounds.

However, we have left aside in this paper some facts that obviously need to be accounted for. In the first place, it must be explained why resultative secondary predicates are not possible in Spanish or in any Romance language whereas we

10. Note, as Rothstein (1983) pointed out, that resultative predicates can co-occur with depictive secondary predicates. This possibility is allowed by our proposal, since depictive secondary predicates are not generated in the same position as resultatives: [examples apud Goldberg 1991: 370]

(i) a. You can rub the clay smooth wet.
b. The clay won't set stiff cold.

find de-adjectival verbs both in Romance languages and in Germanic languages. One possible solution we want to suggest (within Chomsky's 1995, 1998 theory) is that this difference lies in the different feature composition of adjectives in Romance and Germanic languages.[11] We would like to suggest that Spanish adjectives have uninterpretable phi features, whereas adjectives in English lack these uninterpretable features. Uninterpretable phi features of adjectives must be deleted by establishing a local c-command relation with a DP with identical phi features. As it can be observed in the structure proposed for resultative secondary predicates, (6), the uninterpretable phi features of the adjective do not c-command the phi features of the DP and, therefore, the derivation crashes because the uninterpretable features of the adjective are not checked, so that resultative secondary predicates are impossible in Spanish. In English, since the adjective lacks uninterpretable phi features, the derivation converges at the interface levels. This solution is a reformulation of the proposal (Harris, 1991) that English nouns and adjectives are roots while Spanish (Romance languages in general) nouns and adjectives are formed by a root plus a «word-marker» (in Harris' 1991 terms, that is a suffix vowel that is suppressed in derivational processes like in *niñ-o - niñ-ear*). Bok Bennema (1996), in a similar way, states that word markers are strong in Romance languages and therefore they must be checked before Spell Out, while they are weak in Germanic languages like English and therefore they can be checked covertly. This difference has been connected with the productiveness of N-N compounding in English versus its non-productiveness in Romance languages.

Snyder (1995) relates the presence/absence of N-N compounds to the presence/absence of resultative secondary predicates in any given language. He accounts for this parallelism stating that Germanic languages «freely permits independent, word level (X^o), lexical items to be "optionally affixal"» (he conceives this property as a feature [+/-Affixal]), whereas in Romance languages «the distribution of the [+Affixal] feature is lexically conditioned, and occurs primarily with sublexical (X^{-1}) morphemes».

We believe that a solution on this line is on the right track; however, we leave this issue open in this paper.

Secondly, our proposal must account for the fact that de-adjectival verbs participate in the causative/inchoative alternation while denominal location verbs and constructions with resultatives do not. We suggest a solution along the following lines. Kratzer (1993) points out that the alternation between unaccusative/transitive pairs is the result of variation in selectional properties of a Voice Phrase (above the VP) which is the external-argument-projecting head. The Voice Phrase can be projected as two possible abstract heads, one that selects an external argument and one that does not. On the same track, Hartley (1995) proposes that any *verb* is made up of some Base Phrase in combination with an Event head. This Event head can

11. We follow Chomsky's (1998: 34) claim that the «external manifestation of inflectional features appears to be the locus of much of the variety of languages».

be external argument-selecting (CAUSE) or not-external-argument-selecting (BE). As for the Base Phrase, it contains the basic verb, either a bound stem that must have CAUSE attached to it (like *kill*) or a stem that allows either CAUSE or BE to attach to it (like *open*). We suggest, then, that the causative/inchoative alternation can be derived from the selectional properties of some functional node above the VP (we suggest light v in a model like Chomsky's), without proposing that it derives from configurational properties associated to different kind of constructions. This proposal would have to explain why there are some de-adjectival verbs which do not participate in the alternation in Spanish, such as *abrillantar* ('polish'), *internar* ('intern', 'commit'); and also why there are many English denominal verbs that do participate in the alternation, for example: *splash, drip, spill.* We will leave these issues open in this paper.

Basic References

Bok-Bennema, R.; Kampers-Manhe, B. (1996). «Romance Complex Words and the Theory of Morphology». University of Groningen: Unpublished manuscript.

Bosque, I. (1999). «El sintagma adjetival. Modificadores y complementos del adjetivo. Adjetivo y participio». In Bosque, I.; Demonte, V. (dirs.). *Gramática descriptiva de la lengua española.* Madrid: Espasa Calpe (RAE, Nebrija and Bello Series), chapter 4.

Bosque, I.; Masullo, P. (1996). «On Verbal Quantification in Spanish». In Fullana, O.; Roca, F. (eds.). *Studies on the Syntax of Central Romance Languages. Proceedings of the III Symposium on the Syntax of Central Romance Languages*. Girona: Universitat de Girona, p. 9-63.

Chomsky, N. (1995). *The Minimalist Program*. Cambridge, Mass.: The MIT Press.

— (1998). «Miminalist Inquiries: the Framework». *MIT Occasional Papers in Linguistics* 15.

Demonte, V. (1994). «La semántica de los verbos de cambio». In Alonso, A.; Gorza, B. and Pascual, J. A. (eds.). *II Encuentro de lingüistas y filólogos de España y México.* Salamanca: Junta de Castilla y León. U. de Salamanca, p. 535-563.

Díaz, L. *et al.* (1997). «L2 Aquisition and the "Morphological" Model of Parametric Knowledge: N-N Compounds and Resultatives in Non-Native Spanish». Paper presented at EUROSLA 1997.

Goldberg, A. (1991). «It can't go down the chimney up: Paths and the English resultative». *Proceedings of the 17th Annual Meeting of the Berkeley Linguistics Society.* Berkeley Linguistics Society. Berkeley: University of California, p. 368-378.

Gumiel, S. (1999). *La formación de predicados complejos: predicados secundarios resultativos*. Universidad de Alcalá: Master Thesis.

De Hackbeil, W. (1986). *The Roots of Phrase Structure: The syntactic Basis of English Morphology.* U. of Washington: Doctoral Dissertation.

Hale, K.; Keyser, J. (1993). «On Argument Structure and the Lexical Expression of Syntactic Relations». In Hale, K.; Keyser, S. (eds.). *The View from Building 20*. Cambridge, Mass.: The MIT Press, chapter 2.

— (1997). «Three basic elements of Argument Structure». MIT: Unpublished manuscript.

— (1998a). «The limits of Argument Structure». MIT: Unpublished manuscript.
— (1998b). «Bound features, Merge and Transitivity Alternations». MIT: Unpublished manuscript.
Hartley, H. (1995). *Subjects, Events and Licensing*. MIT: Doctoral Dissertation.
Jackendoff, R. (1972). *Semantic Interpretation in Generative Grammar*. Cambridge, Mass.: The MIT Press.
— (1990). *Semantic Structures*. Cambridge, Mass.: The MIT Press.
Moreno, N.; Romero, J. (1999). «On the Syntax of *Locatio* and *Locatum* Verbs». (Forthcoming in *Syntaxis).*
Pérez, I. (1998). «El paralelismo entre la formación de verbos deadjetivales y los predicados secundarios causativos y resultativos». I.U. Ortega y Gasset: Unpublished manuscript.
Pustejovsky, J. (1991). «The syntax of event structure». In Levin, B.; Pinker, S. (eds.). *Lexical and Conceptual Structure*. Oxford: Blackwell.
Rothstein, S. (1983). *The syntactic forms of predication.* MIT: Doctoral Dissertation.
Tenny, C. (1987). *Grammaticalizing Aspect and Affectedness.* MIT: Doctoral Dissertation.
— (1992). «The Aspectual Interface Hypothesis». In Sag, I. A.; Szabolcsi, A. (eds.). *Lexical Matters.* Stanford University, p.1-27.
Tortora, C. (1998). «Verbs of Inherently Directed Motion are Compatible with Resultative Phrases». *Linguistic Inquiry* 29: 338-345.
Romero, J. (1997). *Construcciones de Doble Objeto y Gramática Universal*. U. Autónoma de Madrid: Unpublished Doctoral Dissertation.
Simpson, J. (1983). «Resultatives». In Levin, B.; Rappaport, M. and Zaenen, A. (eds.). *Papers in Lexical-Functional Grammar*. Bloomington, Indiana: Indiana University Linguistics Club, p. 143-157.
Snyder, W. (1995). «A Neo-Davidsonian Approach to Resultatives, Particles, and Datives». In Beckman, J. N. (ed.). *Proceedings of the North East Linguistic Society 25*. Amherst, Mass.: GLSA, p. 457-471.
Weir, H. (1986). «Footprints of yesterday's syntax: diachronic development of certain verb prefixes in an OSV language». *Lingua* 68: 291-316.
Williams, E. (1980). «Predication». *Linguistic Inquiry* 11: 203-238.