Obviation in Argument Structure: Spanish Prepositional Arguments and Expanded Unergatives in Italian and English

Eva Juarros-Daussà
SUNY Buffalo

Obviation characterizes the requirement of some anaphoric elements to avoid being coindexed with an element included within some syntactically defined domain, while proximation is the opposite requirement, that of being coindexed within such domain. Studies on obviation have focused on the distribution of syntactic elements, mainly pronouns and reflexives, as well as semantic phenomena like logophoric and other reference-tracking elements, and degree clauses (e.g., Hale 1992, Reinhart and Reuland 1993, Aissen 1997, Speas, to appear, Fox and Hackl 2007, respectively). Within Romance, much attention has been given to the obviative properties of null subjects of embedded clauses in subjunctive (see Constantini 2005 for a recent review), a phenomenon also found in Slavic languages (Progovac 1993, Avrutin and Babyonyshev 1997). In the GB tradition and in early Minimalism, a prominent line of explanation for these phenomena was framed within Binding theory, including its recent formulations in terms of feature sharing (Chomsky 2000, 2001; Pesetsky and Torrego 2007; Uriagereka and Gallego 2006). Hale and Keyser (2003) explore the role that a system of obviation plays in explaining certain argument alternations, that is, the varying ability verbs show in expressing their lexical arguments with alternate syntactic frames. Their work thus shows that obviation also plays a role at the level of argument structure. This paper presents further evidence in this direction. After a quick revision of Hale and Keyser’s (2002) proposal, their system is expanded to explain additional phenomena: the possible syntactic expressions of Spanish verbs that contain at least one argument introduced by a preposition, and the typological distinction English and Italian present when encoding the arguments of the so-called expanded unergatives (Levin and Rappaport 1998). The goal is to conclude that the system of obviation plays a role at the level of argument structure, in addition to the proven effects that have been observed at other grammatical levels.


In Hale and Keyser 2002 (henceforth H&K), these authors propose a theory in which structural factors restrict both the number of arguments that are possibly associated to a head, and the syntactic expression of such arguments. They claim that the constrained nature of argument structure follows from the structural nature of the lexical categories. Two structural relations are taken as basic: whether the head category has a specifier (spc) or not, and whether it has a complement (cmp) or not. Based on these parameters, H&K distinguish the following four types:

<table>
<thead>
<tr>
<th>Monadic</th>
<th>Basic Dyadic</th>
<th>Composite Dyadic</th>
<th>Atomic</th>
</tr>
</thead>
<tbody>
<tr>
<td>[+ cmp]</td>
<td>[+ cmp]</td>
<td>[- cmp]</td>
<td>[- cmp]</td>
</tr>
<tr>
<td>[- spc]</td>
<td>[+ spc]</td>
<td>[+ spc]</td>
<td>[- spc]</td>
</tr>
</tbody>
</table>

![Argument Structure Diagram]

Argument structures are obtained by combination of the basic structural categories above. Under this view, all words are morphologically derived from one lexical type or other: there are no verbal, nominal or otherwise, basic stems, but the category of the word depends on the structure the stems appear in (much in the spirit of Distributed Morphology). Since all possible argument structures are formed by combinatorial merging of these primitive structural categories, the goal of the theory is to determine the zero-relatedness of all predicates, i.e., to identify their argument structures in terms of the types allowed by the (combination of the) basic lexical categories above (Juarros-Daussà 2009).

For example, a transitive verb like *shelve* in *Ayse shelved the books*, has the following lexical projection structure:

```
(1)  m
    
the books          z
    bd
    
    bd
    a

(ON)  shelve
```

In this structure, a head bd (roughly glossed as the homonymous preposition *on*) projects a basic dyadic structure, with the morphological constant (the root), itself an atomic structure, as its complement. Because of bd being phonologically empty, a (*shelve*) is automatically incorporated (conflated) onto bd. The specifier is occupied by a lexical variable, here represented by z, acting as a placeholder for the object to be syntactically inserted. The whole basic dyadic structure is the complement of a monadic element m, which is responsible for the introduction of the external argument in syntax. Again, the emptiness of m requires the incorporation of the complex [shelve + bd].

In this fashion, H&K offer an analysis of a known contrast regarding transitivity alternations within an apparently homogeneous class. The class is that of verbs that uniformly present the syntactic frame [V DP PP]. In this class there is a split between verbs of getting (including *get*, *splash*, *drip*, *spill*, *dent*, *anger*, *frighten*, *cut*, *split*, etc) and verbs of putting (including *put*, *smear*, *daub*, *stamp*, *kick*, *love*, *respect*, *estimate*, etc.); as seen in the examples below, *get* or *splash* appear in both transitive (2a) and inchoative (2b) syntactic configurations, while *put* or *smear* can only give rise to a transitive sentence (3a), a hypothetical inchoative being impossible (3b):

```
(2)  a. The pigs got/splashed mud on the wall
    b. Mud got/splashed on the wall

(3)  a. We put/smeared saddlesoap on Leecil
    b. * Saddlesoap put/smeared on Leecil
```

Recall from *shelve* in (1) that verbs with a prepositional complement are zero-related to a basic dyadic element, merged with a monadic element. In (1), z becomes the syntactic object, and the upper monadic element is what H&K call a ‘transitivizer’, which introduces a syntactic subject.1 This element is optional in unaccusative verbs alternating between a transitive and an intransitive frame, such as *clear*:

1 A reviewer correctly notes that it is not clear what becomes of the transitivizing role of the monadic structure when it appears as the complement of the dyadic structure, a problem that also arises in relation with (6) and (35) below. In numerous occasions, when H&K encounter a similar problem, they seem to rely in some kind of inherittance or transmission of properties and requirements facilitated by the nature of the operation merge, and thus the transitivizing properties of m would simply be transmitted to the head of the structure m merges with. In my reinterpretation of H&K I prefer to dissociate the structural properties of m (that of being a head with a complement) from its possible functions, among which being a transitivizer would be just one example. In my analysis, therefore, m stands just as a monadic head, a structural piece in the argument structure of these verbs, and its function is not specified. I just mentioned the term transitivizer in order to be faithful to the original H&K proposal.
(4) a. The wind cleared the sky  
b. The sky suddenly cleared

However, in the case of locatio/locatum verbs such as *shelve*, it is obligatory. This fact accounts for the impossibility of an intransitive variant of a verb like *shelve*:

(5) * The books shelved

If so, we would expect all verbs taking prepositional complements not to allow intransitive alternants. This is certainly consistent with the contrast in (3a-b), where the verbs *put* and *smear* do not allow an intransitive structure. Based on these and other examples, H&K conclude that verbs of this group indeed have the structure depicted in (1), with the only difference that in them, the head of the basic dyadic structure is not empty, and hence it does not require the conflation of its complement, and the head of the monadic head is also not empty, but actually contains the p(honetic)-signature of the verb:

(6)

```
m  bd
smear/put
```

```
mud   bd
z
```

```
the wall
```

The problem arises with verbs that have a prepositional complement, but however appear as intransitives, as well as in the predicted transitive structure. These are verbs such as *get* and *splash*, as exemplified by 2a,b). H&K’s explanation for these verbs is that even though they are also based on the combination of a monadic and a basic dyadic structures, their timing of merging is different from the cases above.² In Juarros-Daussà 2003 I argued for an alternative analysis in which, while prepositional verbs still contained two lexical segments (a monadic structure and a basic dyadic one), the differences between the two subgroups were due not to the timing, but simply to the way these structural segments were merged together. If so, the two logical possibilities are: a) merging the basic dyadic structure as the complement of the monadic one, as in (6) for verbs of putting; and b) merging the monadic structure as the complement of the basic dyadic one, as in the structure below, which I argue corresponds to verbs of getting:

(7)

```
m  bd
get/splash
```

```
mud   bd
```

```
m  bd
z
```

```
the wall
```

According to this analysis, which I adopt here, there are two lexical structures corresponding to the two kinds of verbs with prepositional complements, defining those that alternate and those that don’t. The problem however remains of how to ensure that a given verb falls into the right group. In other words, we have to prevent verbs like *smear* from being associated with the structure in (7), while making sure that verbs like *splash* have it. In order to achieve this, H&K propose a solution that somewhat diverts from their program of explaining lexical argument structure solely in terms of the

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² According to H&K, in verbs of getting the basic dyadic head is first merged with its complement, at this point a placeholder. Instead of projecting the specifier required by the nature of the basic dyadic element, such projection is delayed, and the head of a monadic verbal element is merged instead.
structural properties of the basic lexical categories. A new element is introduced, which H&K call ‘manner index’ (cf. Juarros-Daussà 2006).

The basic idea relies on the observation that verbs of getting include as an integral part of the meaning of the verbs themselves an adverbial semantic feature that carries information concerning the argument occupying the specifier position in the basic dyadic category, which will become the syntactic object (mud in the examples above, and hot chocolate in (8)-(9) below). Since this element bears the ‘patient’ theta role, this class of verbs is termed the ‘patient-manner’ verb class, be it the syntactic object of the verb (8) or the syntactic subject (9):

(8) The children got/splashed/dripped/spilled hot chocolate on the carpet
(9) Hot chocolate got/splashed/dripped/spilled on the carpet

In both sets of examples above, there is not only the information of hot chocolate ending up on the carpet, but also information about the specific way in which it got there. Nothing is however said about the external argument. This contrasts with the second type of examples, corresponding to verbs of putting, which are ‘agent-manner’ verbs:

(10) The children put/smeared/daubed/stamped paint on their clothes
(11) * Paint put/smeared/daubed/stamped on their clothes

The semantic feature carrying adverbial information is represented by a curly bracketed index, {i}, and it is treated as subject to syntactic binding by the element it is associated with. Binding is roughly understood as happening between an element and its c-commanding antecedent, where no other potential antecedent intervenes. In this sense, the adverbial feature in agent-manner verbs like put is obviative, necessarily bound by an external (presumably, to the argument structure projected by the verb) element. Object-manner verbs like get, on the other hand, have a proximate adverbial feature, necessarily bound locally, by an element present in the lexical projection of the verb. If so, the alternating verbs will have to allow binding of the manner component feature by the internal argument in both the transitive and the intransitive syntactic structures, while the non-alternating verbs will have to block such binding from their internal argument and allow it from the external argument; as a consequence, the intransitive structure in the non-alternating verbs will be impossible (11), for there is no external argument in it (but only an internal argument that becomes the syntactic subject). 3

Now, looking again at the structures associated with both kinds of verbs, it should be clear that they make the right predictions. Recall that non-alternating verbs such as smear or put have an agent-manner component, which should be externally bound. Recall also the structure associated with these verbs, repeated below with the addition of the external manner component index {i} associated with the verbal root:

(12) put/smear{[i]} mud bd on y the wall
m

In (12), the obviative index notated by {i} can be c-commanded by the sentential subject, even when the sentential object mud is introduced in place of the variable z. However, if we were to assign the wrong structure to smear –mainly, the one corresponding to splash in (7)–, such binding would be prevented by the object intervening between the manner component and a potential external binder;

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3 A reviewer correctly notes that a more precise formulation of how the binding of these indices takes place is desirable in order to support the different claims with respect to argument structure alternations made throughout this paper. Unfortunately, H&K do not offer such explanation, and I don’t take on the enterprise in this paper, but leave it for future development.
since the object is itself a potential binder, the manner component would not be bound externally, and
the structure would be ill-formed:

(13)    *bd
        z     bd
múd\(_{i}\)  bd  m
put/smear\(_{i}\)  m  y
on  y

Clearly, the opposite is the case for the alternating verbs, in which the proximate adverbial
component will always be successfully bound by the internal argument of the verb, independently of it
ending up as the sentential object (as a structure parallel to (13) will produce) or as the syntactic
subject (if mud becomes a derived subject.)

In sum, verbs of syntactic frame V DP PP are composed of two segments, a monadic structure and
a basic dyadic one, and the differences between the two groups are due simply to the way these
structural segments are merged together. The assignment of one structure or the other to particular
roots is determined by the existence of obviative versus proximate adverbial features associated with
the particular roots, together with general principles of binding theory (part of a yet to be elucidated
syntax of obviation, examples of which abound in other linguistic domains.) While the introduction of
adverbial components somehow diverts from the original focus of H&K’s enterprise, it is a fine
example of the interaction between structural and semantic elements of lexical entries.

Next I show that the structures proposed in my interpretation of H&K can be used to explain the
patterns of behavior that we observe in Spanish prepositional verbs with respect to the locative
alternation. I then expand the analysis to account for the existence of two classes of prepositional verbs
in Spanish first discovered by Demonte (1991). I show that the existing patterns are the ones predicted
by the theory in a surprisingly exact way. The reasoning goes as follows: if there are two factors that
determine the syntactic behavior of the verbs considered above (i.e., the structural properties of the
lexical elements they are related to, on the one hand, and the presence of an index that is part of the
obviation system of the language, on the other hand), the question arises of whether these two
components are dependent of each other (and, say, always appear associated in a fixed manner) or can
be shown to maintain a certain degree of independence from each other (and, say, show different
patterns of combination). I here explore the hypothesis that the second is the case. I show the
productivity of such hypothesis by identifying the four lexical argument structures that the free
combination of these two elements predicts.

2. Prepositional Verbs in Spanish

The locative alternation has been identified since early work in languages as diverse as English,
Berber, Igbo, Japanese, and Russian. Spanish examples are presented below:

(14) José cargó arena en el camión
José loaded sand on the truck
(15) José cargó el camión con arena
José loaded the truck with sand

In Spanish, as in English, not all locatio/locatum verbs participate from the locative alternation. In
fact, all possible patterns are attested: alternation (16), locatum as direct object only (17) and locatum
as object of preposition only (18):

(16) a. Juan roció lejía en la camisa
Juan sprayed bleach on the shirt

4 See references in Levin 1993 and Levin and Rappaport Hovav 2005, as well as at the end of this paper.
Here I propose an explanation of these facts within the framework of the revised theory of H&K that was presented above. Crucial to my analysis is the obviative/proximate index. In H&K, the nature of the index determined the two different merging patterns of the two lexical categories involved in the building of the argument structures in question (hence obtaining the structure of verbs of getting and that of verbs of putting). Inspired by a remark about the middle construction in English in which H&K claim that on occasion the manner index can appear in a structure independently of the semantics that motivated it, I expand their idea by completely isolating the structural requirements of the obviative/proximate index (i.e., that of being bound or free in a certain domain) from the structures they supposedly conditioned in the first place. I show that doing so predicts the existence of four argument structures, by mere combination of the two kinds of indexes and the two kinds of merging patterns of the lexical categories. These predictions are then verified in the syntactic behavior of Spanish prepositional verbs, which include verbs with a syntactic frame V DP PP, and a specific kind of verbs with a syntactic frame V PP. I therefore argue for the existence of the obviative/proximate index in argument structure as a productive tool to explain the syntactic behavior of a wider typology of verbs than the one presented in H&K.

Recall that in our modification of H&K’s analysis of V DP PP verbs, the two different structures (that of verbs of getting and that of verbs of putting) were obtained by merging the two lexical segments that the verb was made of (one monadic and one basic dyadic), in consonance with the binding requirements of the manner component index that was part of the independently motivated linguistic system of obviation. I here propose that the resulting structures correspond to the first two groups of prepositional verbs in Spanish, exemplified by *rociar*, ‘spray’ (also *cargar*, ‘load’), which presents the locative alternation, and *llenar*, ‘fill’, which does not. Let’s examine each case in detail.

Consider first verbs that allow the locative alternation, examples of which also include *grabar*, ‘record’, *imprimir*, ‘print’, *untar*, ‘spread’, *salpicar*, ‘splash’, etc. I propose that these verbs have the structure of verbs of putting, and hence are composed of a monadic category with a basic dyadic category as its complement, and an obviative index that requires an agent to bind it:

The alternation is based on the choice of prepositional type that will be the root of the basic dyadic structure. Following H&K, I acknowledge two types of lexical prepositions: the preposition of terminal coincidence that appears in verbs like *put*, *splash*, and locatio verbs like *shelf*, and which is paraphrasable as ON; and the preposition of central coincidence, appearing in verbs like *get*, *smear*, and locatum verbs like *saddle* or *box*, which can be paraphrased as WITH. Both prepositions have the same structure (a basic dyadic one), but determine mirror distribution of the arguments. The preposition of terminal coincidence (ON) converges only in the case that the locatum argument (*bleach*, in (19)) is in the specifier position, and the locatio argument (*shirt* in (19)) is in complement
position. The reverse is true for the preposition of central coincidence. Therefore, the basic claim is that verbs accepting the locative alternation present an optional selection of the type of preposition heading their complement, and hence can act as either locatio or locatum verbs. The reason for this optionality might well be related to verbs of this group being ‘agent oriented’, and hence somehow more “committed” to the predication of the agent than to the predication of the internal arguments.

Moreover, the presence of the obviative index makes the prediction that the external argument be obligatory, and hence that an inchoative alternant in which (either) object raises to subject position be impossible. Such prediction is met, as shown below, using the clitic se and ignoring the irrelevant impersonal reading:

(20) a. *La lejía se roció en la camisa (sola)
    the bleach se sprayed on the shirt (on.its.own)

b. *La camisa se roció con lejía (sola)
    the shirt se sprayed with bleach (on.its.own)

Consider next those verbs that present only the alternant in which the locatio argument appears as the direct object of the verb. Such verbs are exemplified by llenar, ‘fill’, rellenar, ‘refill’, disolver, ‘dissolve’, adornar, ‘adorn’, etc. I propose that these verbs have the structure of verbs of getting, i.e., a basic dyadic category with a monadic one as complement, and a proximate index requiring the internal object to bind it:

(21)   bd
      \_________\     m
     \       \   y
    \     \  con   \_______
   vaso  bd         agua
     glass llenar
       fill

These verbs are ‘patient oriented’, and therefore the verbal root appears as the head of the basic dyadic structure and is predicated of the locatio object. Such verbs seem to select a preposition of central coincidence WITH (con in Spanish, although the default preposition de, ‘of’, is also possible, see Hirschbüler 2006) as the head of its complement, the monadic structure, which in turn forces the interpretation of its complement as the locatum argument. By hypothesis, it is some component in the meaning of the verbal root what determines this distribution of internal arguments and the impossibility of a preposition of terminal coincidence that would reverse such distribution (and hence produce the ungrammatical alternant in which the locatio argument appears as the object of the preposition). Following the reasoning used for the alternating verbs above, it might well be that it is precisely the object-oriented nature of the verb what allows it to play a role on the distribution of the internal arguments.

Furthermore, the familiar prediction regarding verbs with this structure to be able to appear as inchoatives, by raising of the argument in the specifier position of basic dyadic structure to sentential subject position, is met:

(22) El vaso se llenó con/ de agua (solo)\(^5\)
    The glass se filled with/of water (on.its.own)

Notice that a hypothetical inchoative created with the wrong distribution of arguments, with the locatum as specifier of the basic dyadic structure raised to subject position, results in ungrammaticality, offering further support to the structure in (21):

\(^5\) One reviewer finds the alternant with con (with) unacceptable. Expanding the sentence to El vaso se llenó con el agua de la lluvia seems to satisfy more speakers.
(23) * El agua se llenó en el vaso  
the water se filled in the glass

Now, what about verbs that present only the alternant in which the locatum argument is the object of the verb, exemplified by echar, ‘pour/throw’, but including others like espacir, ‘scatter’, derramar, ‘spill’, verter, ‘pour’, inscribir, ‘inscribe’ etc.? It seems like the possible structures provided by H&K’s theory are all used up, and still here is a pattern that we have yet to account for. I propose that in order to account for this further group of verbs we have to separate the two main components that determine the structures under consideration, that is, the combination of lexical categories and the obviative/proximate index, and allow for some degree of autonomy from each other. So far, we have only seen the obviative index associated with the verbs of putting, and the proximate index associated with verbs of getting. The implication has been that these associations were dependent on each other, that is, that only the obviative index would make the derivation corresponding to verbs of putting converge, and so on. However, I here propose that such inference is not true, and that we indeed find all the logical combinations of structures and indexes considered as independent of each other.

I propose that verbs in which the locatum argument is always the direct object of the verb have the lexical structure of verbs of getting, but unlike these, they have an obviative index and a preposition of terminal coincidence, like the verbs of putting (represented here by the different indexing on the object and the verbal root):

(24)   bd
      z(i)  bd
agua  echa
water  pour
       m
en     jarra
in      jar

This structure is, so to speak, a hybrid. As such, it presents hybrid properties. On the one hand, the structure of verbs of getting blocks the possibility of alternating between a preposition of terminal coincidence and one of central coincidence, in this case restricting it to the opposite preposition that we found in verbs like llenar, ‘fill’. The important point is not which preposition appears in the structure, but the fact that it is fixed in the lexical entry, selected by the verbal root, and cannot be interchangeable, as it could with verbs that present the alternation, such as rociar, ‘spray’.

On the other hand, the structure of verbs of getting would predict the alternation between a transitive and an inchoative construction. In fact, an inchoative is however not possible:

(25) * El agua se echó en la jarra (sola)  
the water se pour in(to) the jar (on.its.own)

An explanation for this fact is that the inchoative is blocked by virtue of the structure having an obviative index. Such index should be bound by an argument distinct from the internal argument. If the internal argument were to rise to sentential subject position, there would be no possible argument to bind the obviative index different from the internal argument, and the requirements of the index wouldn’t be met. The only possibility for such requirements to be met is if an external argument is introduced. Hence the forced transitivity of the construction.

In sum, by separating the two components of the structures at hand, and allowing for their free combination, we obtain the structure corresponding to the third group. The question now arises of whether a fourth logical possibility, the one corresponding to an argument structure like that of verbs of putting but without an obviative index (or with a proximate one) exists. Next I argue that such possibility is also attested in Spanish.

Demonte (1991) shows that in Spanish there are two classes of verbs with the syntactic framework V PP. They are exemplified by the following:
La tesis consta de cinco partes
The dissertation includes of five parts

Esteban abusa de la bebida
Esteban abuses of the alcohol

These two kinds of verbs present mirror patterns of grammaticality with respect to a number of linguistic parameters. Among these: possibility of null PP, island effects in extraction contexts, null preposition in coordination, transitive variant without preposition, and a cluster of properties associated with unaccusative verbs for one of the groups.

Based on these properties, Demonte proposes that verbs like consistir ‘to include’ in (26) are unaccusatives subcategorizing for a small clause, the subject of which is the sentential subject. The thematic role of the DP is assigned by the whole PP, but the PP cannot assign accusative case to the DP, because PP is not a lexical head, and hence the raising of the DP to subject position:

(28) \[ IP \ [ VP \ V_{unacc} \ [ SC \ DP \ PP ] ] \]

Verbs like (27), however, have a regular accusative (transitive) structure, the preposition not being a real preposition, but just an explicit mark of “agreement case” linked to the aspectual properties of the verb:

(29) \[ IP \ DP \ [ VP \ V_{tr} \ DP ] \]

I propose that the verbs of the first type (in (26)) correspond to the last of the possibilities of combining the structures and the manner indexes that we were considering in the previous section. Recall that the missing combination was one with the structure of verbs of putting and a proximate index requiring the internal object to bind it:

(30) m

m_{[i]} consists

bd

la tesis consists the dissertation

bd de

dei cinco partes of five parts

This structure forces the internal object to rise to subject position in order for it to be able to bind the proximate index of the verbal root. Hence, a transitive counterpart of this structure should be impossible. The data confirms this prediction:

(31) * Lidia consta la tesis de cinco partes
Lidia consists the dissertation of five parts

The rest of properties in this group of verbs are also explained assigning them the structure in (30). Since these verbs have derived subjects (their argument structure can be depicted as a “double object unaccusative”), the cluster of properties identified for unaccusatives follow: for instance, the impossibility of omitting the PP presumably follows from recoverability issues, since it contains the trace of the subject; the impossibility of a transitive counterpart also follows, since the P element is the

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head of one of the segments of the lexical projection of the verb, and it is required as complement of the monadic head. The impossibility of a nominalization is shared by verbs with the structure of verbs of putting, and seems to be a feature of this kind of structure.

3. Summary

By allowing independence to the different components of the lexical structures that H&K assign to prepositional verbs, and observing the interaction between them, the following predicted typology arises, represented here by Spanish data:

<table>
<thead>
<tr>
<th>Verbs of Putting</th>
<th>Obviative Index</th>
<th>Proximate Index</th>
</tr>
</thead>
<tbody>
<tr>
<td>rociar, ‘spray’</td>
<td>constar, ‘consist on’</td>
<td></td>
</tr>
<tr>
<td>echar, ‘pour’</td>
<td>llenar, ‘fill’</td>
<td></td>
</tr>
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4. Beyond Spanish: Expanded Unergatives and the Crosslinguistic parameterization of {i}

The obviative/proximate index also proves to be useful to derive another typology, this time a crosslinguistic one between English and Italian. The addition of a goal phrase to an arguably unergative predicate like *run* results in the predicate showing unaccusative characteristics in Italian (32 a, b from Borer 1994), but transitive in English (33 a, b, from Levin and Rappaport Hovav 1995):

(32) a. Gianni ha corso
    Gianni has run
    b. Gianni e corso a casa
    Gianni is run to home
    c. * Gianni e corso Alex a casa
    Gianni is run Alex to home

(33) a. Fred ran
    b. Fred ran Alex to the emergency room

It has been noted that these data pose a serious challenge for theories with hierarchically organized argument structures, and have been used (separately) to argue for theories in which the nature of arguments is instead syntactically determined (Borer 1994, 2005). However, I claim that the two possibilities are two variants of the same process, parameterized in a way predicted by H&K’s theory, when the obviative/proximate index is incorporated into the theory. In this section I outline the solution to this problem.

The root corresponding to the activity verb *run* is associated with the projection structure of a monadic lexical category, in much the way of other unergatives like *laugh*:

(34) m
    m  x
    run

Nothing in the theory prevents this structure from being expanded by adding a basic dyadic category to it, a kind of result phrase which satisfies the complement requirement of the monadic root:

(35) m
    m  bd
    run
    DP  bd
    bd result  DP
In their account of this construction within the lexical semantics framework, Rappaport Hovav and Levin (1998) show that alternations of this type are only possible in verbs with a \(<\textit{MANNER}>\) feature. The question arises whether we could make the parallelism between this semantic feature and the syntactic proximate/obviative index \{i\} of H&K. Recall that such an index can be of one of two types: object-oriented or agent-oriented. Object-oriented \{i\} is proximate, in that it should be bound by the internal argument, while subject-oriented \{i\}, being obviative, should be bound by an argument other than the internal argument. I will here pursue an analysis in which Italian and English unergative verbs have the same lexical structure, but different indices associated with it. It is the difference in indices (obviative vs. proximate) that accounts for the syntactic differences in (32)-(33).

In English, the verbal root is associated with a subject oriented manner component. This is a truly obviative index, whose defining characteristic is that it must be different from the index on the internal argument. The two logical possibilities for English are then the following. If there is no internal argument, an external argument should be introduced which is co-indexed with the manner component of the verbal root, and the requirement of the index is satisfied: the resulting predicate is unergative. If however a result phrase introduces an internal argument, a possible raising of such an argument is blocked, since it would result in binding the index, hence violating its obviative nature. Since the object must then remain in place, an external argument is introduced: the predicate is transitive (36).

\[
\begin{array}{c}
\text{run} \\
\text{Alex} \\
\text{to the emergency room}
\end{array}
\]

The predicted alternation is thus between that of an unergative and that of a transitive version of the verb \textit{run}, exactly what we find in the data (recall (32) above). Now, what about Italian, where we find an alternation between an unergative and an unaccusative version of the same verb?

In Italian, the verbal root is associated with a proximate index. The nature of such index forces it to be bound by the internal argument (in other words, \{i\} is forced not to be different from the index of the internal argument.) Now, this leaves us with two logical possibilities. If there is no internal argument, the requirement of the index is satisfied vacuously and an external argument is added to the predicate: the verb behaves as an unergative. If however there is an internal argument, which can only be introduced by the addition of a result phrase, this argument will have to raise from its base-generated position in order to be able to bind the index on the verbal constant: the subject will be derived, and the verb will behave as unaccusative (37):

\[
\begin{array}{c}
\text{correr} \\
\text{Gianni} \\
\text{to home}
\end{array}
\]

In this fashion, the crosslinguistic difference between English and Italian can be reduced to a difference in the structural requirements of the indexes associated with the respective roots. Moreover, one of the most puzzling alternation for any theory assuming the projection of lexical structures (that of the Italian alternation between unergative and unaccusative versions of the same verb) is explained in a relatively simple fashion.
References


