

Aspects of the syntax of psychological verbs in Spanish

A lexical functional analysis

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In Spanish, people generally distinguish three kinds of psychological verbs, those that are syntactically realized like *temer*, like *preocupar* and like *gustar*. One of the peculiarities of these verbs is that, despite their semantic relatedness, each type of verbs shows up a different correspondence pattern between thematic roles and grammatical functions. In this paper I develop a unified account of these empirical data, based on Lexical Mapping Theory. As the difference between *preocupar* and the other kinds of verbs seems to be mainly semantic, and more specifically aspectual, I propose to reformulate the thematic theory of Dowty (1991), in order to accommodate aspectual differences; more specifically, the proto-role linking of arguments is made dependent in part on the aspectual decomposition of the event denoted by a verb. In order to explain the syntactic differences between *temer* and *gustar*, I propose to modify the mapping theory, by introducing an optional rule operating on the thematic structure of the *gustar* verbs. These modifications give as an additional result a more consistent analysis of Spanish (and generally Romance) indirect objects and a preliminary analysis of the Spanish *léismo* (through which an object, traditionally analyzed as a direct object, can be marked with dative morphology) as it operates in the case of the psychological verbs.

1 Three classes of psychological verbs¹

In Spanish, as in other Romance languages, it is possible to distinguish three kinds of psychological verbs, those that are syntactically realized like the verb *temer* in (1), like *asustar* or *preocupar* in (2), and like *gustar* in (3):

- (1) Juan teme el fuego.
John fears the fire
'John fears the fire.'
- (2) El fuego asusta a Juan.
The fire frightens ACC John
'The fire frightens John.'
- (3) El teatro le gusta a Juan.
The theater 3SG/DAT pleases DAT John
'John likes the theater.'

¹I wish to thank the organizing committee, for making it possible to present the research developed in my doctoral thesis at the 2002 International LFG conference. I would also like to thank all those who provided me during the conference with stimulating questions, comments and advices: this experience allowed me to further refine certain ideas elaborated in my dissertation.

Despite the syntactic differences exemplified by these sentences, the three verbs seem to show up a thematic equivalence: in all three examples, there is an “experiencer” reacting emotionally to a “theme”. The theme is realized as the subject in (2) and in (3), and as the direct object in (1), while the experiencer is realized as the subject in (1) and as the direct and the indirect object in (2) and (3) respectively. Thus, one of the puzzles concerning the analysis of these verbs goes as follows: how can it be explained that apparently equivalent thematic relations can be realized as three syntactically different constructions?

One of the oldest and most popular solutions to this puzzle was formulated within the transformational framework, and takes this unifying thematic factor as its starting point: the thematic equivalence between these three kinds of psychological verbs can be explained if we postulate an equivalent or at least a similar deep structure for all of them (Belletti and Rizzi 1988).² But a closer look at the semantic content of these verbs shows that there is a systematic difference between the verbs of the *temer* and *gustar* classes on the one hand and the class of *preocupar* on the other hand. Indeed, careful analysis of Spanish data shows that if the verbs of the *temer* and the *gustar* classes can best be characterized aspectually as states, the verbs of the class of *preocupar* are aspectually closer to “achievements”. On the other hand, from an aspectual and generally semantic point of view the verbs of the *temer* and the *gustar* classes seem to be essentially equivalent. However, these two kinds of verbs present a *syntactically* differentiated behavior: the *temer* verbs behave like regular transitive verbs, while the *gustar* verbs have unaccusative characteristics.

This analysis of the empirical data suggests that the original puzzle should be decomposed into two new questions:

1. how can we explain the different syntactic configurations of the semantically equivalent verbs of the *temer* and *gustar* classes?
2. if we consider the verbs of the *temer* class to follow the thematically unmarked linking pattern Experiencer/SUBJ—Theme/DO (as is suggested for

²One of the first versions of the transformational proposal can be found in Postal (1971)’s Psych-Movement rule. Pesetsky (1995) further develops and refines the transformational approach.

instance by Grimshaw 1994), how can we derive the inverted syntactic configuration of the *preocupar* verbs from their semantic characteristics?

2 A reformulation of Dowty's proto-role theory

2.1 A new pair of proto-role properties

The answers to these two questions have to be of a very different nature. The explanation of the difference between the *temer* and the *gustar* verbs is essentially non-semantic. On the other hand, the difference between the *preocupar* and *temer* classes of verbs seems to be triggered by a semantic distinction. The correspondence between semantic roles and grammatical functions is the object of study of different kinds of “mapping theories”, both inside and outside the framework of LFG. As is explained in Butt and Holloway King (2000), different approaches were developed within LFG, Lexical Mapping Theory being one of the most popular (Bresnan and Kanerva 1989, Bresnan 2001). Other theories were developed outside LFG (Joppen and Wunderlich 1995, Wechsler 1995) or from a perspective which is relatively neutral as to the syntactic theory one adopts (Ackerman and Moore 2001). In this paper, I will primarily follow Lexical Mapping Theory. The first step in my analysis is to integrate the aspectual difference between these two types of verbs into the mapping theory. Therefore, I take as a starting-point the thematic theory of Dowty (1991).³ Dowty distinguishes two lists of properties, which can be used to characterize the two thematic roles (“proto-roles”) he distinguishes:

- (4) Contributing properties for the Agent Proto-Role:
 - a. volitional involvement in the event or state
 - b. sentence [sic] (and/or perception)
 - c. causing an event or change of state in another participant
 - d. movement (relative to the position of another participant)

³Several other authors working within an LFG framework also use Dowty's theory as the basis for their mapping theories: Ackerman and Moore (1999), Alsina (1996), Kelling (2002), Zaenen (1993). However, the proposal presented here is different in several respects from the approaches developed by these authors.

- e. (exists independently of the event named by the verb)
- (5) Contributing properties for the Patient Proto-Role:
- a. undergoes change of state
 - b. incremental theme
 - c. causally affected by another participant
 - d. stationary relative to movement of another participant
 - e. (does not exist independently of the event, or not at all)

The linking of these proto-roles with the grammatical functions follows the Argument Selection Principle (Dowty 1991: 576):

In predicates with grammatical subject and object, the argument for which the predicate entails the greatest number of Proto-Agent properties will be lexicalized as the subject of the predicate; the argument having the greatest number of Proto-Patient entailments will be lexicalized as the direct object.

Independently of my approach and of the data I want to account for, Dowty's lists of proto-role properties seem to be insufficient to account for all types of verbs. Indeed, Dowty himself presents these lists as only provisional. On the one hand the two lists of properties are rather heterogeneous, and on the other hand, they don't seem to cover all thematically relevant semantic distinctions. Other authors also have tried to extend Dowty's lists with new properties. Ackerman and Moore (1999, 2001), for instance, add the property of being a telic entity to the list of proto-patient properties; as a matter of fact, my modification of Dowty's theory will resemble to a certain extent that of Ackerman and Moore.

However, it is difficult to exactly classify the different kinds of psychological verbs from an aspectual point of view, or from the point of view of their "Aktionsart": at least the *frighten*-type verbs don't seem to fit exactly in none of the aspectual classes distinguished for instance by Vendler (1967). Although many authors classify these verbs either as achievements or as accomplishments, sometimes implicitly, by characterizing them as causative or as telic verbs, they don't

behave like typical examples of these categories.⁴ For instance, with respect to the standard telicity-test (the standard test for determining achievement-hood or accomplishment-hood), compatibility with a delimiting complement, these verbs show very heterogeneous results:

- (6) ?* En cinco minutos, el problema de cambiar de casa me preocupó.
'In five minutes, the problem of moving preoccupied me.'
- (7) ? Que pensaras así me enfadó en cinco minutos.
'That you thought so angered me in five minutes.'
- (8) En cinco minutos, fascinó a todo el mundo con su labia.
'In five minutes, he fascinated everybody with his volubility.'

This problem of classification is also reflected in the bibliography, where one can find all kinds of aspectual classifications for these verbs (cf. full references in Vanhoe 2002: 135–139).

However, most analyses seem to agree to consider the *frighten* verbs as telic verbs, while the other two types of verbs are generally analyzed as atelic verbs: although they don't have a consistent behavior with respect to their compatibility with a delimiting complement, they are telic with respect to other telicity-tests. Most importantly, they are compatible with complements indicating a gradual change over time:⁵

- (9) Poco a poco, el problema de cambiar de casa me preocupó.
'Little by little, the problem of moving preoccupied me.'

⁴Kelling (2002) also notices this fact in French, but reaches different conclusions with it. More particularly she distinguishes two aspectual classes within the class of *frighten* verbs, a class of telic verbs and a class of atelic verbs, by using the two tests of compatibility with a durative complement (*for X time*) and with a delimiting complement (*in X time*). However, at least in Spanish, it seems that all *frighten* verbs are relatively acceptable with a durative complement, while, as we will show presently, compatibility with a delimiting complement varies from very bad to acceptable; thus, with respect to this test, it is not really possible to distinguish two discrete subclasses within the *frighten* class.

⁵Tenny (1994: 66) applies the same argument to English data. The other test introduced by Tenny, reference to an "endstate entailment", doesn't seem readily applicable to Spanish data, as the kind of resultative construction she uses doesn't exist in Spanish.

- (10) Poco a poco, me enfadó que pensaras así.
 ‘Little by little, it angered me that you thought so.’
- (11) Gradualmente, fascinó a todo el mundo con su labia.
 ‘Gradually, he fascinated everyone with his volubility.’

Therefore I propose to add the pair of properties listed in (12) and (13) to the lists provided by Dowty in order to account for the telic/atelic distinction:

- (12) the participant has the most prominent thematic role in a first subevent (=proto-Agent property)
- (13) the participant has the most prominent thematic role in a second subevent (=proto-Patient property)

These two properties are based on the idea that a telic event is composed of at least two subevents, one that precedes the final state or event, and the final state or event itself. In this way, it is possible to already establish a distinction between the *preocupar* verbs and the *temer* verbs in their thematic structures, as the theme of a verb like *preocupar* plays the prominent role in the “triggering” event, and the experiencer in the resulting state.

Thus, if we add these two properties to Dowty’s lists, we can rewrite them as in (14) and (15):

- (14) Proto-agent properties:
- a. the participant is involved volitionally in the event
 - b. the participant has the most prominent thematic role in a first subevent
 - c. the participant feels or perceives something
 - d. the participant contains or possesses something
- (15) Proto-patient properties:
- a. the participant undergoes a change of state
 - b. the participant has the most prominent thematic role in a second subevent
 - c. the participant is the object of a feeling or a perception
 - d. the participant is contained in or enters something else, or is or comes into the possession of another participant

The comparison of this list of properties with Dowty's shows that for the most part they cover the same data. I retained the two first agentive properties (volitional involvement and sentience) and the first patient property ("undergoes change of state"). The two properties concerning the causative character of the sentence and the property of being an "incremental theme" are collapsed into the aspectual distinction.⁶ I added the second patient property to ensure symmetry between the two lists. But there are also several important differences between both lists of properties. More particularly, I did not retain the two last properties of Dowty's lists. However, most of the examples proposed by Dowty (1991: 573) to exemplify these properties can be subsumed in the part-whole and possessor-possessioned distinction (property d) and in the aspectual distinction (property b), as I demonstrate in Vanhoe (2002).

2.2 A hierarchy of properties

At the same time, and for reasons that soon will become clear, it is necessary to establish a hierarchy between the properties in these two lists: following a suggestion of Alsina (1996: 41), I consider the first two properties of each list to be "primary" properties, the last two properties are "secondary" properties.⁷ This hierarchy of properties captures the intuition which also is at the basis of the standard hierarchy of thematic roles, in which agents (property a) or causers (property b) are ranked higher than experiencers (property c). The parallelism between properties (c) and (d) is motivated by the observation that in Spanish, sentences denoting a part-whole relationship often display the same characteristics as experiencer verbs of the *gustar*-class (Vanhoe 2002: 236). Thus, if we analyze the three examples listed in (1)

⁶According to Ackerman and Moore (1999), an incremental theme does not necessarily imply telicity, which is in contradiction with my proposal to collapse both characteristics into one property. According to these authors, in an example like "Kim drank water", although this sentence does not refer to a telic event, the object denotes an incremental theme. I don't have a definitive answer to this problem. However, Ackerman and Moore (1999) characterize an incremental theme as a participant of a predicate which preserves the part-of relation. As *water* in "Kim drank water" does not denote a precise amount of water, it seems difficult to distinguish a part-of relationship in this kind of sentences.

⁷I suspect the effect of this hierarchy could also be reached with an optimality theoretic account, but I haven't fully explored this possibility.

to (3), we can thematically characterize their participants as follows:

- in (1), the subject (“Juan”) is a secondary agent (14c) and the object (“el fuego”) is a secondary patient (15c)
- in (2), the subject (“el fuego”) is simultaneously a primary agent (14b) and a secondary patient (15c), while the object is simultaneously a primary patient (15b) and a secondary agent (14c)
- in (3), the subject (“el teatro”) is a secondary patient (15c) and the indirect object a secondary agent (14c)

With the *temer*-verbs, there is no conflict between primary and secondary properties and these verbs will be realized as regular transitive verbs. As primary properties take precedence over secondary properties, the *preocupar*-verbs also will be realized as normal transitive verbs. Although in other contexts the secondary properties of the *preocupar*-verbs seem to play a syntactic role (for instance, in the formation of the middle construction, as shown in Vanhoe 2002), they do not in the mapping of the participants to the different grammatical relations. If we consider agents to map to [-o] arguments, and patients to [-r] arguments, standard mapping theory will do the rest of the job. The idea that the *preocupar*-verbs are normal transitive verbs is in contradiction with most other analyses of these verbs (and not only the transformational ones), as they generally consider them as displaying special properties in their mapping of thematic roles to grammatical functions. However, in my thesis I show that the analysis presented here is also empirically justified, at least in Spanish, while other authors, like Bouchard (1995) and Ruwet (1972) suggest the same for French and English.⁸

3 The *gustar* verbs

3.1 Romance indirect objects are OBJ

The analysis of the verbs of the class of *gustar* is, at least formally, more complex, as the correct grammatical characterization of Romance indirect objects is not immediately evident. In principle, it seems most natural to consider them as obliques.

⁸Zaenen (1993: 145) also considers these verbs as “simple transitive verbs”.

However, Alsina (1996: 150ss) gives several arguments against this analysis. His arguments are based on Catalan data, but can be applied directly to Spanish data (as both are closely related Romance languages). They could also be analyzed as thematic or secondary objects (OBJ_{θ}) but they don't seem to behave like typical thematic or secondary objects in other languages either; contrary to secondary objects, they don't have to be *secondary* (they don't have to be used together with another object) and they are *always* realized with a preposition (*a*):

- (16) Juan le dio el libro a María.
John 3SG/DAT gave the book to Mary.
 'John gave the book to Mary.'
- (3) El teatro le gusta a Juan.
The theater 3SG/DAT pleases DAT John
 'John likes the theater.'
- (17) Juan le ha mentido a su jefe.
John 3SG/DAT has lied to his director.
 'John lied to his director.'

Thus it seems worthwhile to follow a suggestion made by Alsina (1996) and to consider both direct and indirect objects as morphologically distinct instances of the same grammatical function "object". Indeed, many grammatical phenomena in Spanish suggest the similarity of both types of objects. It is true that this analysis implies some important modifications of standard rules, but Alsina (1996) shows that they can be accounted for satisfactorily. Under this hypothesis, we can easily analyse the *gustar* verbs, if we add the typically Spanish, maybe even typically Romance, rules, listed in (18) and (19), to the mapping theory:

- (18) **θ -structure to a-structure mapping**
 Secondary agents correspond to [+o] arguments in the marked option.
- (19) **a-structure to f-structure mapping**
 A [+o] argument corresponds to $\left(\begin{array}{c} \text{OBJ} \\ (\uparrow \text{DAT}) = + \end{array} \right)$

These rules fulfill a function similar to the one introduced for instance in Bresnan (2001: 309), in order to analyze "secondary patientlike roles". With these rules,

we can derive the grammatical functions of a verb like *gustar* as in (20):⁹

(20) <i>gustar</i> :		
θ -structure	< P-A ^② ,	P-P >
a-structure	[+o]	[-r]
f-structure	OBJ	SUBJ
	(↑ DAT) = +	

We already know that the experiencer of *gustar* is a secondary agent. Thus, this argument can be mapped to a [+o] argument, and consequently, through (19), to an object marked with dative case. However, the fact that a verb follows rule (18) has to be specified lexically: other verbs, such as *temer*, don't follow this option. This analysis of the verbs of the *gustar* class has several advantages. Most noticeably, it very naturally accounts for the unaccusative characteristics of the *gustar*-like verbs. Just as with normal, intransitive unaccusative verbs, the subject of *gustar* is characterized, in its a-structure, as a [-r] argument.

In addition, this analysis allows us to introduce some regularity in the apparently idiosyncratic behavior of the verbs of the *gustar* class. The mapping exemplified by these verbs can only be obtained with predicates that contain a secondary agent; for that reason it is only possible with verbs that have an experiencer or a “container” or possessor as one of their participants. This is in accordance with what one can find in Spanish. Not only this type of indirect constructions can be found with experiencer verbs but also with verbs expressing a part-whole relation, or a relation of possession (or their negation):

(21) A Juan le falta confianza.
 DAT John(10) 3SG/DAT lacks confidence(SUBJ)
 ‘John lacks confidence.’

(22) A Juan le basta tu palabra.
 DAT John(10) 3SG/DAT suffices your word(SUB)
 ‘Your word is enough for John.’

⁹P-A stands for “proto-agent”, P-P for “proto-patient” and P-A^② for “secondary agent”.

The approach presented here has several advantages over other mapping theories, such as Lexical Decomposition Grammar (Joppen and Wunderlich 1995, Stiebels 2000), which consider this kind of verbs as examples of a purely lexical idiosyncrasy. As such, these approaches can't explain why this idiosyncrasy is limited to particular semantic types of verbs.

3.2 *Leísmo*

This analysis also makes it possible to explain some typically Spanish data in a principled way. As is well known in the Spanish grammatical tradition, Spanish is characterized by what has come to be known as the phenomenon of “leísmo”, by which an object, traditionally analyzed as a DO, can be marked, under certain circumstances, with dative morphology (that is, the morphology characteristic of an IO). Thus, in (23), the DO is marked with “normal” accusative case, while in (24), it is marked with dative case:

(23) Juan lo ha visto.
 John 3SG/ACC has seen
 ‘John has seen him’

(24) Juan le ha visto.
 John 3SG/DAT has seen
 ‘John has seen him’

In most cases *leísmo* is optional, and seems to be triggered by contextual and/or pragmatic factors that are more or less difficult to circumscribe. In addition, *leísmo* seems to be most frequent in European Spanish, more particularly in Northern and Central dialects of Spain. However, with certain verbs, a DO is obligatorily marked with dative morphology, not only in European Spanish, but also in Latin American Spanish. The prototypical example of this is the verb *interesar*, as shown in (25) and (26):

(25) Este libro le interesa (a Juan).
 This book 3SG/DAT interests (ACC? John)
 ‘This book interests him (John).’

(26) * Este libro lo interesa (a Juan).
 This book 3SG/ACC interests (ACC John)

‘This book interests him (John).’

However, in its “causative” variant, *leísmo* is again optional, as can be seen in (27):

- (27) María lo / le ha interesado (a Juan) en el negocio.
María 3SG/ACC 3SG/DAT has interested (ACC John) in the business.
‘Mary has interested John in the business.’

One possible analysis is to say that the object of *interesar* (in its non-causative version) is not a direct but an indirect object: *le* is the normal dative pronoun, and both DO and IO can be marked with the preposition *a*. However, from various points of view, this element behaves more like a direct than an indirect object:

- *interesar* is perfectly possible in an adjectival passive construction, just like the other verbs of the *preocupar*-class, as can be seen in examples (28) to (30)

(28) Juan está preocupado por el discurso.
‘John is worried about the speech.’

(29) Juan está interesado por el discurso.
‘John is interested in the speech.’

(30) * Juan está gustado por el discurso.
‘John is pleased with the speech.’

- this verb is possible in an “absolute construction”, just like the *preocupar*-verbs, and contrary to the *gustar*-verbs, as shown in (31) to (33)

(31) Preocupado Juan por el incidente, ...
Worried John by the incident
‘As John got worried about the incident, ...’

(32) Interesado Gustavo repentinamente por los
Interested Gustavo suddenly by the
ordenadores, ... (Miguel 1992: 244-245)
computers
‘As Gustavo was suddenly interested in computers, ...’

- (33) *Gustado Juan con el café,...
Pleased John with the coffee
 ‘As John was pleased with the coffee,
 ... se fue sin explicaciones.
 ... he went away without explanation.’

- generally, an indirect object, contrary to a direct object, is “announced” by a so-called expletive pronoun, as in example (3).¹⁰ With *interesar*, both versions, with and without an expletive pronoun, are possible:

(34) El teatro *(le) gusta a Juan.

(35) El teatro (le) interesa a Juan.
 ‘The theater interests John.’

In the present analysis, nothing prevents a DO from being marked with dative morphology as on a “deeper” level, DO and IO are instances of the same grammatical function OBJ. This can be expressed very easily in the lexical entry of the verb *interesar*, as represented in (36):

(36) *interesar* V (↑ PRED) = ‘interesar⟨(↑ [-o])(↑ [-r])⟩’
 (↑ OBJ DAT) = +

Although *interesar* selects a regular direct object (a [-r]-argument), its DAT attribute receives obligatorily (and idiosyncratically) a positive value. In its causative version, this restriction disappears and the object can be a normal direct object, not marked with dative case (27). As a hypothesis, we can state that the presence or absence of *leísmo* is triggered by the value of the DAT attribute, not by the grammatical function itself. It is important to observe that although both with *gustar* and with *interesar* the object is necessarily marked with dative case, on a more abstract level, these verbs have radically different structures: their objects are assigned dative morphology through very different processes; more specifically, *gustar* is an

¹⁰However, as is observed by Roegeist (1999: 71), this “rule” can be overridden easily in certain contexts (whose exact nature still has to be determined).

unaccusative verb, while *interesarse* is, at least at the level of its a-structure, a regular transitive verb.¹¹

4 Conclusion

In conclusion, in this paper I tried to show that it is possible to account for data that are traditionally considered to be problematic in the Spanish grammatical tradition, with the formal methods of Lexical Functional Grammar and more particularly of Lexical Mapping Theory. In order to achieve this goal, only some relatively minor modifications of the standard theories were needed. With the hypotheses presented here, it is possible to account for the different kinds of mapping exemplified by three classes of Spanish psychological verbs. In addition we can account very naturally for the unaccusative characteristics of the verbs of the *gustar* class, and explain the presence of dative morphology with certain transitive verbs like *interesarse*. In Vanhoe (2002), I show that these hypotheses also make it possible to shed a new light on several other constructions involving psychological verbs, such as their presence in middle constructions, as well as their behavior in constructions involving a binding relation.

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¹¹The indirect objects of verbs like *mentir* or *hablar*, which are not unaccusative either, are also distinct from the object of *interesarse*, as they are [+o]-arguments, not [-r]-arguments.

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