Lexicalization of light verb structures and the semantics of NPs *

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The study of two distinct lexicalization patterns in Romance will prove that idioms, in addition to having distinct basic argument structure representations, are formed in sentential syntax by various instantiations of Merge and Move. In particular, it will be shown that a lexicalization pattern exists in Romance languages which reflects a semantic conflation pattern (Talmy 1985, 2000) between cause and degree, and which in syntactic terms is the output of a Merge operation (Chomsky 1995), under agreement conditions, between an unergative argument structure and an independently generated quantified NP. The study of this lexicalization pattern is of interest with regard to the semantics of bare nouns, specifically of bare count / discrete singular nouns in object position in Romance, since it is proved that they are interpreted as properties, rather than as kinds, and because of this they permit quantification of degrees.

1. Introduction

In the late sixties generative grammar started arguing against transformational analyses within the lexicon, introducing a strict separation between syntax and semantics, and arguing for a view according to which syntax was considered the core of grammar and semantics an interpretative component. This view leads to think that lexicalization patterns, if interesting at all, they are so only out of the grammar, maybe at the grammar-cognition interface, in the conceptual structure module (Jackendoff 1997), or in the cognitive system (Talmy 1985, 2000), where figurative interpretations associated with lexicalized expressions would be accounted for.

The study of idiomatic constructions suggests that there are a number of questions concerning their syntax that should be adequately explained; amongst others: (1) how different idioms should be generated, (2) how they should be syntactically analysed, (3) how the absence or presence of a D should be dealt with, and (4) what sort of theoretical implications, if any, can be drawn -from the syntax and the semantics of verbal and prepositional idioms- with regard to the analysis of bare nouns (Everaert et al. 1995, Mendívil 1999, Nunberg et al. 1994, O'Grady 1998). With regard to questions (1) and (2) it should be pointed out that one topic is to find out how and where various idioms

become lexicalized. A different question is that of coming to grips with the argument structure which corresponds to a given lexicalized expression, and whether functional projections are, or are not, represented at the same level of representation as predicate-argument relations. Question (3) poses the problem of the independence between functional projections and lexical projections, a question which is crucial when aiming to account crosslinguistically for the syntax and semantics of idioms. The last question poses the problem of the complement NP interpretation in VP and PP idiomatic expressions.

In addition, several questions concerning the semantics of idiomatic constructions should also be posed; amongst others: (1) what is the difference between idiomatic constructions and light verb constructions with regard to complex predicate formation?, (2) should a distinction be made between argument structure and thematic structure?, (3) how is the property vs. kind denoting interpretation of the object predicted?, and (4) which part of the semantics of an idiom is predicted from lexical specifications? which part is predicted from syntactic, or interface operations? and which part is attributed to cognitive procedures? (Everaert et al. 1995, Jackendoff 1997, Mendívil 1999, Talmy 2000). The first question stems from the assumption that at lexical or l-syntax (Hale - Keyser 1993) idiomatic structures are identified by both an argument structure and a continuity constraint (O'Grady 1998), whereas light verb structures are only associated with an argument structure. The second question poses the problem of the sometimes postulated identification between classical thematic structure and argument structure.[1] The third question focuses on the NP object interpretation which corresponds to idiomatic constructions. In this paper I shall argue that the semantics of Nouns correlates with the argument structure representations with which different light verb structures are associated. Finally, the last question poses the problem of the amount of

meaning which is to be codified at l-syntax and the amount which is to be codified at sentential or s-syntax, or at some specific interface module. In this paper I shall argue that different argument structures at the l-syntax subcomponent of the computational system license different Noun interpretations at the syntax-semantics interface. Nevertheless, the figurative interpretations conceptually associated with idiomatic expressions still require an explanation in cognitive semantic terms.

Descriptively, in this paper I shall analyse the syntactic and semantic differences between two distinct lexicalized light verb constructions.[2] From a theoretical point of view, I shall address the question of what a lexicalization pattern of light verb structures consists of, what exactly the grammatical nature of a syntactic fusion process (mediating between an unergative verbal projection and a quantified NP projection) exactly is, and what sort of model arises for the lexicon as a result of such an analysis.[3]

It is also the case that the ideas here presented are theoretically interesting in at least three respects: (1) they challenge the traditional view that lexicalized expressions are of no interest with regard to the principles of the core grammar, since they are considered to be peripheral grammatical phenomena; (2) they focus on the issue of theoretical reductionism and its relevance with regard to the learnability problem, i.e. to the traditional view that lexicalized expressions should be conceived as irregularities listed in the lexicon; and (3), by understanding the syntactic construal underlying lexicalized light verb structures, they contribute to a theory of bare nouns interpretation.

The structure of the paper is as follows. In Section 2 two different paradigms of lexicalized light verb structures are introduced and described; the contrast between object nominal expressions denoting degree and other lexicalized degree phrases will be pointed out. In Section 3 it is argued that the two paradigms of idioms under analysis have different argument structures: one being basically unergative, and the other

transitive. In section 4 I shall mainly focus on the semantics of unergative argument structures, together with the most relevant aspects regarding the semantics of bare count nouns in object position. Section 4 is also devoted to accounting for the syntactic and semantic behavior of D(eterminer) *un* in both paradigms: one being an existential quantifier of degrees, and the other being an existential quantifier of entities. Finally, Section 5 focuses on the syntax of the lexicalization patterns under study. It is claimed that one pattern is the output of an s-syntactic fusion process induced by the defective semantic features of the nominal object head of an unergative argument structure, when these features coincide with the semantic features of the nucleus of a quantified NP; the second pattern is characterized by a transitive argument structure which combines an unergative argument structure with a spatial relational head.

The main purpose of this paper is to compare two distinct lexicalization patterns that exist in Romance languages, in order to understand the correlation between different syntactic argument structures and the semantics of NPs. Syntactically, it will be argued that one of these patterns is the output of a syntactic fusion, semantically-driven conflation operation, between an unergative argument light verb structure and an NP structure containing a Spec(ifier) quantifying over degrees, a head Noun which denotes some property that permits grading, and a non-predicative relative-like complement. The second pattern will be assigned a composite transitive argument structure, which involves an object NP followed by a predicative adjective-like complement.

Semantically, it will be shown that the study of a subset of lexicalized light verb expressions provides additional arguments to support the hypothesis that object count nouns of VP idioms, under certain syntactic conditions, must be interpreted as property denoting expressions at the syntax-semantics interface (Espinal 2001, McNally 1995)). Thus, determinerless NPs occurring in object position of unergative structures do not

require the projection of a category D(eterminer) or Q(uantifier) that would determine a type-shifting operation from properties to either referential entities or generalized quantifiers (Carlson 1999, Chierchia 1998, Longobardi 2001, Partee 1987). On the other hand, the study of a transitive subset of lexicalized light verb structures licenses an interpretation of the object DP as a kind denoting expression. Accordingly, the main claim put forward in this paper is that lexicalized light verb structures, with different argument structures at the computational system license different noun interpretations at the syntax-semantics interface.

2. Describing the data

Let us first consider the characteristics of two patterns of lexicalization, exemplified by means of the two paradigms of data in 1 and 2 (which from now on will be referred to as class 1 and class 2 idioms, respectively). The examples given, followed by the literal translation and the English gloss, are taken from Catalan, although the phenomenon here approached may be found across Romance languages.[4]

(1) a. *fer un aire que talla*
make an air that cuts 'It's a cutting wind'

b. *fer un fred de mil dimonis*
make a cold of one-thousand devils 'It's freezing cold'

c. *fer un sol de justícia*
make a sun of justice 'It's scorching hot'

d. *tenir una son que no s'hi veu*
have a sleep that not CL sees 'To feel drowsy'

e. *tenir una gana que l'aixeca*
have a hunger that CL raises 'To have a voracious appetite'

f. *tenir un morro que se'l trepitja*

have a snout that CL walks-on 'To have a brass neck'

(2) a. *fer la vida impossible (a algú)*

make the life impossible (to somebody) 'To make life impossible (for someone)'

b. *fer el cor fort*

make the heart strong 'To summon up courage'

c. *fer els ulls grossos*

make the eyes big 'To turn a blind eye'

d. *tenir la consciència bruta*

have the consciousness dirty 'To have a guilty conscience'

e. *tenir el cap a la boja*

have the head at the madness 'To be round the bend'

f. *tenir el / un geni fort*

have the / a genious tough 'To have a strong character'

g. *posar el / un cap com un tabal*

put the / a head as a drum 'To drive someone mad'

Apparently, what is common among the data in (1) and (2) is a V + object structure with a light verb as verbal head (either *fer* 'make', or a heavier light predicate such as *posar* 'put' –see Bosque 2001-, which can be said to denote a dynamic cause, or *tenir* 'have', which can be said to denote a static cause –Mateu 2000, Mateu – Amadas 2001-) followed by a NP and a second complement.[5] However, from a purely descriptive view point the two complements are of a different sort in (1) and (2), as shown by the fact that these two classes of idiomatic structures are associated with different pronominalization and determiner strategies, and with different semantic instructions.

This claim is based on the following arguments:

(i) In (2) both the NP and the second complement, say YP, can be pronominalized independently, which is not intended to mean that either the NP or the YP have any particular reference (Simatos 1997, Espinal 2001). This pronominalization strategy is impossible with regard to any of the apparent complement constituents of class 1 idioms.

(3) a. *fer la vida impossible (a algú)* Class 2

make the life impossible (to somebody) 'To make life impossible (for someone)'

b. La hi fan tant com poden, la vida impossible a en Joan

CL CL make as much as can, the life impossible to D Joan

'As much as they can, they make life impossible for Joan'

(4) a. *fer un aire que talla* Class 1

make an air that cuts 'It's a cutting wind'

b. *En fa (un) que talla, d'aire, des que ha començat la tardor

CL makes (a / one) that cuts, of air, since that has begun the autumn

By contrast, what is illustrated in (5) is the fact that the object complement of an unergative light verb structure, associated with class 1 idioms, can be pronominalized.

(5) a. fer aire

make air 'It's windy'

b. *En* fa, d'aire, des que ha començat la tardor

CL makes, of air, since that has begun the autumn

'It has been windy since autumn began'

In purely syntactic terms the pronominalization strategies of class 2 idioms could be associated to its having a minor clause with an AP or a PP predicating of a nominal

subject (Stowel 1981), whereas in class 1 idioms there is no predication, but rather a specification, from the YP to the NP. In Section 3 I shall relate these facts to their having different argument structures, and in Section 4 to the status of *un* 'a'.[6]

(ii) In (2) the D(eterminer) which precedes the object N(oun) is not completely fixed, as shown by the sometimes possible *el* 'the' / *un* 'a' alternation. This syntactic variation determines the fact that the object noun of class 2 idioms admits a kind denoting interpretation, as paraphrased in (6b).

(6) a. *tenir el / un cervell de gat* Class 2
have the / a brain of cat 'To be pea-brained'

b. tenir el cervell propi d'un gat
have the brain characteristic of a cat

This alternation vanishes when we consider class 1 idioms. But, in addition, the unergative V + N structures that class 1 idioms are associated with allow prenominal degree quantifiers and modifiers, thus suggesting that these object nouns only admit a property denoting interpretation.

(7) a. fer sol
make sun 'It's sunny'

b. fer *més / un bon* sol
make more / a good sun 'It's sunnier / It's brilliant sunshine'

c. *fer un sol de justícia* Class 1
make a sun of justice 'It's scorching hot'

(8) a. tenir llengua
have tongue 'To have a sharp tongue'

b. tenir *molta / bona* llengua

have much / good tongue ‘To make a sharp reply / To have an eloquent tongue’

c. *avere una lingua que taglia e cuce* Class1

have a tongue that cuts and sews ‘To have a foul mouth’

(iii) From a cognitive perspective, in class 2 idioms the YP constituent is to be interpreted as a conceptual predicate which stands on an abstract Ground relationship with regard to an object Figure NP. These terms, although taken from Gestalt psychology, are interpreted by Talmy (1985, 2000) as follows: “the Figure is a moving or conceptually movable object whose path or site is at issue; the Ground is a reference-frame, or a reference-point stationary within a reference-frame, with respect to which the Figure’s path or site is characterized” (1975:61). Accordingly, example (9a) must be interpreted as in (9b).

(9) a. *fer el cor fort* Class 2

make the heart strong ‘To summon up courage’

b. make the heart at a strong state

By contrast, in class 1 idioms the YP constituent can never be interpreted as an abstract Ground, but only as an adjunct phrase, always denoting a property modifying a high degree. The object NP cannot be interpreted as a concrete Figure because it denotes a property, and the Spec *un* denotes existential quantification over degrees. In fact, it denotes a high degree within a comparative scale, but not the highest possible degree. Accordingly, the examples in (10) are not acceptable.

(10) a. *fer el sol de justícia

make the sun of justice

b. *tenir el morro que se'l trepitja

make the snout that CL walks-on

To conclude, I take these syntactic and semantic properties to provide relevant arguments in support of the claim that class 1 and class 2 idiomatic constructions are distinct, in spite of their light verb + NP + YP superficial similarities.[7]

Notice furthermore that, besides the two patterns of lexicalized light verb expressions I have considered so far, a specific pattern of (both lexicalized and nonlexicalized) degree expressions is also productive in Catalan, and other Romance languages. Relevant examples are given in (11).[8]

(11) a. *més dolent que la tinya*

more bad than the ringworm 'You rascal'

b. *tan cert com ara és de dia*

as true as now is of day 'As clear as daylight'

c. *(tan) alt com un sant Pau*

as high as a saint Paul 'As tall as a tree'

d. *(tan gran) com una casa*

as big as a house 'A great big N'

Notice that what these examples have in common is the expression, explicitly or implicitly, of degree. Degree words, such as *més* 'more', *tan* 'as' in (11a,b) seem to head a maximal projection DegP, which usually takes an AP as its complement, and a AdvP (*than / as* phrase) as an adjunct within the DegP (Corver 1991). These examples also show the possibility that both the head of DegP and the head of AP be empty (see (11c,d)).

Interestingly enough, the nominal expressions we find in class 1 idioms (with the schema *un* 'a' + N + YP) also occur in isolation, without the light verb, but –in spite of

denoting high degree- an explicit degree marker (*més* 'more', *tan* 'as', or even *tal* 'such') can never appear in this paradigm. This is illustrated in the Spanish examples given in (12), which have been taken from the Spanish Corpus of the Real Academia Española. All these nominal expressions occur without a selecting verb and denote a property to a high degree.

(12) a. …, *un frío que pelaba*, …
a cold that cut 'Freezing cold'

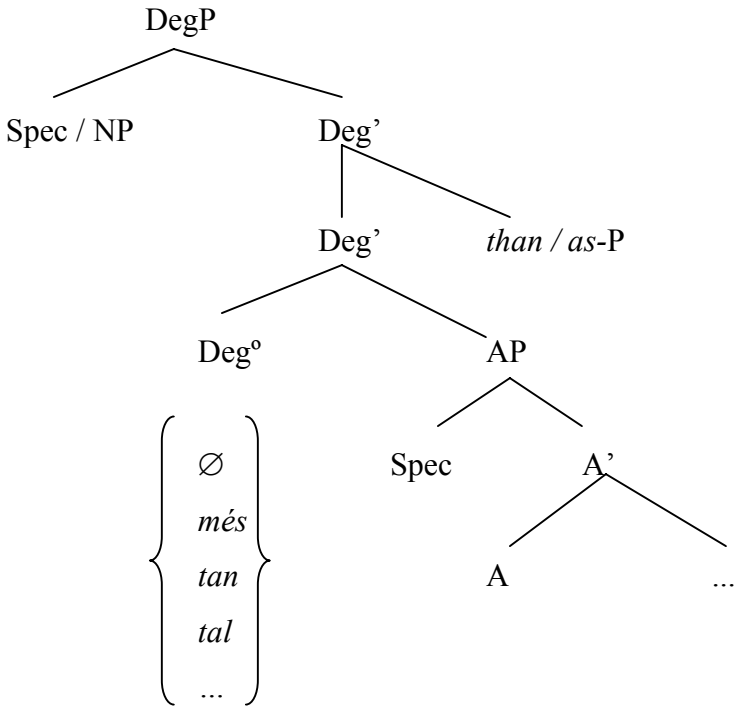
b. … {bajo, con, y} *un sol de justicia* …
under, with, and a sun of justice 'In the blazing sunshine'

c. … y *un morro que se lo pisa* …
and a snout that CL walk-on 'And a brass neck'

Following Talmy (1985, 2000), it might be claimed that a meaning of high degree can be associated with various surface forms by one of the following three processes: lexicalization (i.e. a fixed meaning-form relationship, as in (1) and (12)), deletion (or zero presence) of a constituent which is sometimes fully explicit (compare the presence of degree in (11a,b) vs. (11c,d)), and interpretation of a specific meaning component (i.e. the concept of degree) based on present context and general knowledge.

Syntactically, following Corver (1991), I shall assume that any of the expressions in (11) fits the syntactic structure in (13), which is also the basic structure of non-lexicalized degree expressions. It happens that, by lexicalization, a specific meaning component, in particular degree, can also be associated with a substructure of DegP.

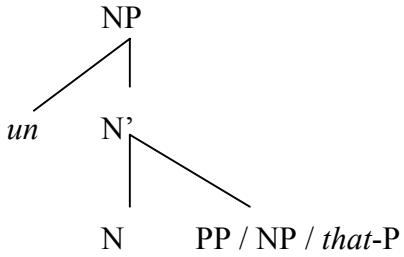
(13)



A degree word, even an empty degree word, always heads the maximal projection, whose specifier position can be filled by a nominal projection. The *than / as*-P (e.g. Catalan *que la tinya*, *com ara és de dia, com un sant Pau, com una casa*) is base-generated as a right branch constituent within the DegP projection and is conceived as a sort of adjunt constituent with regard to Deg°.

Now, contrasting (11) and (12), and on the basis of the fact that an explicit degree head can never be made explicit in neither class 1 idioms, nor in (12), I will assume the simplest hypothesis that the syntactic structure underlying (12) is a NP, not a DegP. The PP / *that*-P complement (e.g. Spanish *que pelaba, de justicia, que se lo pisa, de mil demonios*), even a NP complement (e.g. Italian *fare un freddo cane* 'lit. make a cold dog'*, fare un freddo boia* 'lit. make a cold hangman'), is base-generated as an adjunct to N'.[9] And from this, it follows that if (14) is the syntactic structure corresponding to (12), then the concept of degree associated with these data must be related to the semantic properties of the Noun itself.

(14)



This will be dealt with in Section 4. The aim of the following section is, however, to show that an appropriate account of the lexicalized patterns in class 1 and class 2 idioms is provided if, and only if, it is argued that light verb expressions are associated with different syntactic argument structures. The analysis of these argument structures is the clue to understanding the syntactic and semantic properties of the two idiomatic patterns under consideration. The main claim I shall put forward is that only unergative structures with a bare noun object are lexicalized following the paradigm in (1).

3. Argument structures

Let us first consider the basic light verb structures underlying the paradigm in (1):

(15) a. Fer aire

make air ‘It’s windy’

b. Fer fred

make cold ‘It’s cold’

c. Fer sol

make sun ‘It’s sunny’

d. Tenir son

have sleep ‘To be sleepy’

e. Tenir gana

have hunger ‘To be hungry’

f. Tenir morro

have snout ‘To be cheeky’

Notice that the syntactic schema corresponding to the data in (15) is a light verb followed by a bare noun (either a mass -e.g. *aire, fred, son, gana-,* or a count noun –e.g. *sol, morro-*). Notice, furthermore, that the head N is always interpreted similar to a mass / continuous noun. It corresponds to an unbounded and a potentially gradable property, and therefore it can be modified by a YP that denotes high degree; even nouns which from a morphosyntactic perspective are singular count nouns can occur in the syntactic structure schematized in (16).[10]

(16) a. 

It has been assumed in the linguistic literature that light verbs lack a thematic argument structure. Therefore, in light verb constructions θ-marking is a process of complex predicate formation, which Grimshaw and Mester (1988) conceive as argument transfer. As pointed out recently by Bosque (2001:23), light verbs "exhibit tense and agreement features and assign case to their DP complement, but they have a very abstract meaning (close, in fact, to that of the verb *do*). Their DP complement is headed by a nominal (an event noun in most cases) which displays its own argument structure". Accordingly, it has been assumed (Higginbotham 1985:559-568) that object Nouns display a specific thematic grid that must be saturated by θ-binding. An additional assumption has been that, in the absence of a definite determiner, a light verb allows that the argument structure of the noun be projected upwards by means of a syntactic process of reanalysis (Mendívil 1999:80).

The problem is that different nouns might be said to have different thematic grids as part of their lexical entries and, therefore, seem to require different licensing tools. Following a thematic approach, the answer to the question of what licenses determinerless common nouns in complement object position is highly dependent on the

type of noun in question. When the object noun has an argument structure with an eventive argument (in davidsonian terms), this property is to be saturated by syntactic reanalysis which projects the <e> requirement to the V projection containing a light verb with specific aspectual features (see *fer aire* 'it's windy'*, fer fred* 'it's cold'*, tenir son* 'to be sleepy'*, tenir gana* 'to be hungry'). However, when the object noun is a bare count noun, as illustrated in various types of idiomatic constructions: from pure light verbs (*fer sol* 'it's sunny'*, tenir morro* 'to be cheeky'), heavier light verbs (*posar botiga* 'to set up shop'*, passar llista* 'to call (the) roll'), to non-light verbs (*plantar cara (a algú)* 'to stand up (to someone)'*, buscar pis* 'to look for a flat'*, guardar lloc* 'to keep a seat'), then the object noun, which (following Higginbotham 1985:560) might be said to have the thematic grid <1> but with no determiner responsible for its θ-binding, should be licensed by a process of thematic reduction of <1> into <0>, followed by lexical merge or incorporation.[11]

In other words, the main objection to a classical thematic analysis of the paradigms in (15), is that this analysis can only provide an adequate account of the data by postulating different tools for the various subsets of light verb expressions identified. Depending on the thematic grid of the noun, the relevant operations required for its interpretation seem to differ: θ-binding, syntactic reanalysis, thematic reduction, and incorporation. Besides, it should be pointed out that none of these operations can account for the lexicalization pattern illustrated in (1), and for the fact that this lexicalization pattern is only superimposed on an unergative argument structure, never on a transitive argument structure.

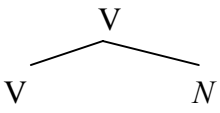
Let us now consider the basic elements of the argument structures underlying class 1 and class 2 idioms. I repeat (1c) and (2e) for convenience:

(17) a. *fer un sol de justícia* 'It's scorching hot' Class 1

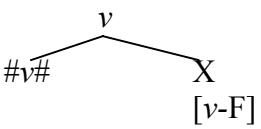
b. *tenir el cap a la boja* 'To be round the bend' Class 2

My hypothesis is that (17a) starts from a basic monadic argument structure, which is the basic argument structure corresponding to (15), whereas (17b) has a composite dyadic argument configuration. Taking into consideration a lexicalist approach (Hale - Keyser 1997), a minimalist syntactic approach (Uriagereka 1999), and a semantically based lexical-syntactic account (Mateu 2000, 2001), the representations postulated for an unergative structure might be represented as in (18), and those postulated for a transitive structure as in (19).

(18) a. Hale - Keyser (1997:204)



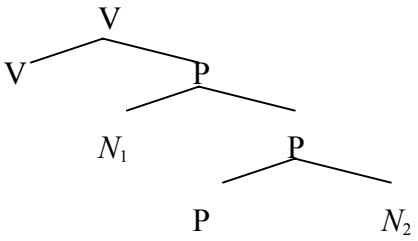
b. Uriagereka (1999:438)



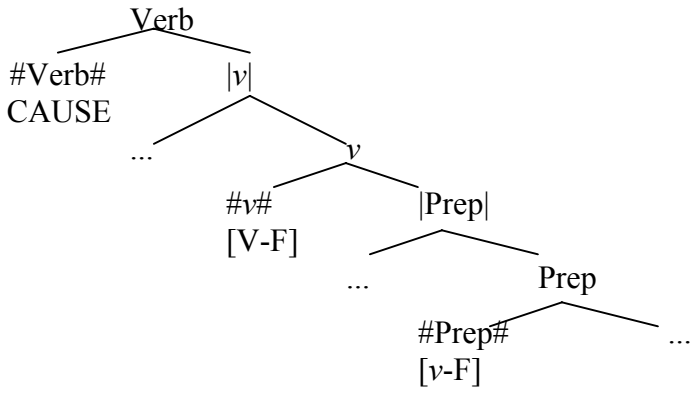
c. Mateu (2000:286)

$_{R''}$ [X $_{R'}$ [R X]]

(19) a. Hale - Keyser (1997:206)



b. Uriagereka (1999:440)



c. Mateu (2000:286)

$_{R"}$ [X $_{R'}$ [R $_{T'}$ [T $_{r"}$ [X $_{r'}$ [r X]]]]]

Assuming a semantic construal for lexical syntactic relations, Mateu (2001:89) claims that "the structural difference between transitive structures and unergative structures is based on the type of complement selected by the causal / source relation: While a spatial relation is selected in [19] as complement, it is a non-relational element that is selected in [18]". Under a relational semantics conception of the argument structure, R, T and r are relational functions with the following conceptual values: R denotes a causative relation (either dynamic +R: *fer* 'make', or static –R: *tenir* 'have'); T denotes a transitional relation (either a change of state +T, or a state –T); and, finally, r denotes a direction +r, or a location –r) (Mateu 2000, Mateu – Amadas 2001).[12]

Accordingly, (17a) –together with the rest of class 1 idioms- has the basic argument structure in (20):

(20) $_{R"}$ [X $_{R'}$ [R X]]

fer *sol* [13]

fer *fred*

tenir *son*

whereas (17b) –and the rest of class 2 idioms- has the basic argument structure in (21):[14]

(21) $_{R''}$ [X $_{R'}$ [R $_{T'}$ [T $_{r''}$ [X $_{r'}$ [r X]]]]]

tenir el cap a la boja

fer el cor fort

Furthermore, it should be noticed that postulating different basic argument structures for class 1 and class 2 idioms it is possible to predict the different syntactic behavior described in Section 2 with regard to pronominalization**.**

The YP complement of class 1 idioms cannot be pronominalized because it is not part of its argument structure; in fact, it is a right branch constituent of an independently motivated quantified NP. By contrast, the YP complement of class 2 idioms can be pronominalized, although with some lexical restrictions, because the NP forms part of the transitive argument structure.

Let me now consider further arguments for distinguishing between two different lexicalization patterns, namely class 1 and class 2 idioms at the syntax-semantics interface.

4. On noun interpretation and the status of *un*

Assuming transparent syntax-semantic mapping as a guideline for research, and that this is a direct function of the syntactic structure and the lexical meanings of the words it contains (see Chierchia 1998, Herburger 2000, among many others), the empirical domain on which I shall focus in this section concerns the syntax and semantics of nominal expressions in class 1 and class 2 idioms. I will show that phrasal expressions with roughly the same surface structure map to clearly distinct logical representations. More specifically, I aim to provide an account of noun interpretation in (1) and (15), and to describe the linguistic status of the Determiner *un* in this Romance pattern.[15]

It is generally assumed that bare arguments unambiguously refer to kinds, thus aligning the interpretation of bare plurals with that of proper names and definites (Carlson 1977a, 1977b, 1999; Chierchia 1998). Besides, Romance argument bare plurals have been claimed to be a type of indefinites (quantificational variables, existentially or generically bound; Longobardi 2001), although some arguments have also been put forward towards the hypothesis that bare plurals denote properties (McNally 1995).[16] However, not much attention has been paid to the interpretation of bare singular count nouns in argument position, in spite of the fact that they are not rare in Romance languages.[17] As a consequence of this theoretical reduction, only the status of bare plurals and mass / continuous nouns is assessed in English (and, more generally, Germanic) vs. Italian (and, more generally, Romance).

We are, therefore, still in need of a semantic theory which accounts for the meaning of bare singulars. My claim is that bare count / discrete singulars in object position denote properties, and that this interpretation is determined by the argument structure configuration in which they occur.

I nevertleless assume that the canonical mapping of nominal categories into their denotations holds (see Vergnaud – Zubizarrreta's 1992 Correspondance Law), i.e. DPs are arguments ("DPs, qua arguments of verbs, must be of the canonical argumental types, namely *e* (for referential nominals) or G(eneralized) Q(uantifiers) (for quantificational nominals)" Chierchia 1998: 343), while NPs (common nouns) are predicates ("bare nouns, qua restrictions of quantifiers, must be predicates" Chierchia 1998:343).

Accordingly, within strict argument structural terms, when the V + N unergative structure represented in (18), which is assumed to underlie (1) and (15), is projected into s-syntax, the bare N (either a bare mass / continuous noun, or a singular count / discrete

noun, but not a bare plural) does not require the projection of a D.[18] Thus, in order to preserve the above-mentioned canonical universal mapping, what is required is a complex verb formation operation according to which the bare N is syntactically incorporated into the head V, forming a complex predicate at syntax, the latest at LF (see Guasti 1993, Safir 1995, Espinal 2001).[19] Semantically, this analysis leads to the conclusion that bare arguments of unergative structures refer to properties, these being a sort of semantic entity distinct from kinds.

Notice that if Romance bare count / discrete singulars were said to be interpreted unambiguously as kinds, or as indefinites, then we would expect the object noun of the unergative *fer sol* ('It's sunny') to be equivalent, semantically speaking, to the object noun of the transitive *fer un sol* ('to design a sun') or *fer sols* ('to design (some) suns'); but, in fact, it is not.

Several arguments can be provided to support the hypothesis that bare count / discrete singulars of unergative argument structures are property denoting objects.

First, when an argument structure of the sort represented in (18) and (20) cooccurs with a real indefinite expression, no scope ambiguities arise, since the existential quantifier is always interpreted as having wide scope. Notice that if the object noun of the unergative *fer sol* ('It's sunny') were a type of indefinite, then bare count singulars could be expected to have either wide or narrow scope with regard to a second quantifier. Only a hypothesis according to which bare count singulars denote properties is compatible with an appropriate interpretation of the data. Consider (22):

(22) a. *Feia sol* en unes aules, però no en unes altres
made sun in some rooms, but not in some others
'It was sunny in some rooms, but not in others'

b. *Feia un sol de justícia* en unes aules, però no en unes altres
made a sun of justice in some rooms, but not in some others
'It was scorching hot in some rooms, but not in others'

What (22) exemplifies is that both the light verb expression *fer sol* 'It's sunny' and the class 1 idiom *fer un sol de justícia* 'It's scorching hot' must be interpreted as being affected by the existential quantifier which syntactically occurs outside the V + N argument structure: there are some x, x being classrooms where it was sunny, or where it was scorching hot. A reading according to which a particular sun is under consideration is unacceptable.

A second argument supporting the claim that the object noun in (20) denotes a property is provided by the fact that both count and mass nouns in (15) allow either a degree quantifier or a degree modifier in prenominal position (i.e. they express the concept of inner mass predicates, following Bosque – Masullo's 1998 terms). Consider the paradigm in (23), especially the contrast between (23b) and the well-formed (23c,d). I take the well-formed combination of a quantifier / modifier expressing degree followed by a common Noun in (23c,d) as a basic test of abstract feature agreement between the modifier and the modifee, and as an argument for the property interpretation of the object complement. The object Nouns in (1) allow an interpretation according to which only a property, conceived in a high degree, can be inferred.[20]

(23) a. A l'aula feia sol
at the classroom made sun 'It was sunny in the lecture theatre'

b. *A l'aula feia *un* sol
at the classroom was a sun

c. A l'aula feia *força* sol

at the classroom made quite sun 'It was really hot in the lecture theatre'

d. A l'aula feia *un bon* sol

at the classroom made a good sun 'It was bright and sunny in the lecture theatre'

Third, the object Nouns in (1) and (15), even in the case of singular count nouns, do not allow a plural form, thus suggesting that there is no sense in postulating a D position responsible for a hypothetical indefinite reading. Therefore, the plural test can be used as an additional argument for the claim that these nouns are not types.[21] See the contrast in (24).

(24) a. *no tenir prou boca* SG PROPERTY DENOTING EXPRESSION

not have enough mouth 'To be unable to express oneself'

b. *haver d'omplir moltes boques* PL TYPE DENOTING EXPRESSION

have to feed many mouths 'To feed them all'

Fourth, the object Nouns in (1) and (15) cannot be affected by a numeral quantifier:

(25) a. *Avui ha fet dos sols

today has made two suns

b. *Avui ha fet dos sols de justícia

today has made two suns of justice

Therefore, I conclude that in unergative structures the complement denotes a property (i.e., an intensional entity, Chierchia 1998), not a nominal argument (i.e., a kind denoting expression, Carlson 1977a, 1977b), and because of this it only allows quantification and modification of properties, and therefore of degrees.

By contrast, it should be noted that in transitive structures the complement noun, unless it is incorporated into a light verb (as in synthetic verbs of the sort exemplified by *tombar* 'To turn'*, abraçar* 'To embrace'*, voretar* 'To hem'), must be licensed as a kind denoting object (either type or token) and, therefore, it only allows quantification of individual entities. This is illustrated in (26b,d), which contrast with the ill-formed (26a,c).

(26) a. *La Maria té geni fort

D Maria has character strong

b. La Maria *té un geni fort*

D Maria has a character strong 'Maria has a strong character'

c. *La Maria té força geni fort

D Maria has quite character strong

d. La Maria *té el geni fort*

D Maria has the character strong 'Maria has a strong character'

As far as I understand the fact that some object nouns in class 2 idioms are in the plural form (see (2c)) and some allow a Determiner *el* 'the' / *a* 'un' alternation corroborates the kind denoting interpretation attributed to object nouns in transitive argument structures.[22]

By contrast, it must be noted that the D(eterminer) *un* 'a' in class 1 idioms cannot alternate with any other D, even a zero D, and this is because -in spite of being the specifier of an NP- it denotes existential quantification of degrees, and as such *un* is external to the V + N argument structure (its status will be discussed immediately).

Since the expectation regarding Romance (NP [-arg, +pred] languages) is that an NP cannot be made into an argument without projecting D (Chierchia 1998:343,355), my conclusion is that a precision should be added to this generalization, for it is relevant

only with regard to transitive argument structures. In unergative structures an empty D is not required, because in this type of argument structure a Nº complement is licensed as a property of the lexical head Vº by complex predicate formation.

My next point will help identify the linguistic status of *un* in class 1 idioms. Notice that there is an interesting asymmetry, which is exemplified in the following paradigms.

(27) a. *fer un sol [23]

make a sun

b. Fer sol (=15c)

make sun ‘It’s sunny’

(28) a. *un sol de justícia* (=12b)

a sun of justice ‘Scorching hot’

b. **sol de justícia*

sun of justice

(29) a. *fer un sol de justícia*

make a sun of justice ‘It’s scorching hot’

b. **fer sol de justícia*

make sun of justice

We have already seen that in object position a bare Nº is licensed directly by the Vº only within an unergative argument structure, as in (27b). But, when a modifier is added to the structure, as in (28a) and (29a), then the nominal needs a proper licenser, and the Determiner *un* in all the data illustrating this lexicalization pattern is the unique licenser allowed in this structure.[24]

The contrast in (29) is here interpreted as providing crucial evidence for the unergative argument structure subjacent to class 1 idioms, and for the application of a syntactic

operation which merges an independently generated quantified NP into an unergative argument structure.

In class 1 idioms the D *un* is syntactically obligatory. Its distribution is interesting because it does not alternate with a zero form, which is what usually applies to object nominals in argument structures distinct from unergatives. Consider the contrast between (27) and (30).

(30) a. Fer *un* tomb
make a walk 'To go for a walk'

b. *Fer tomb
make walk

c. Fer tombs
make walks 'To go for walks'

Notice, moreover, that the functional head of a Focus Phrase can license the bare object noun of a left dislocated light verb structure, but not the object noun of a lexicalized class 1 idiom.

(31) a. SOL feia, i no fred
sun made, and not cold 'It was sunny, but not cold'

b. **SOL DE JUSTÍCIA feia*, i no fred
sun of justice made, and not cold

c. *UN SOL DE JUSTÍCIA feia,* i no fred
a sun of justice made, and not cold 'It was scorching hot, but not cold'

Again I take this as evidence that, syntactically, *un* is not an expletive item, but rather a D(eterminer) which supports the complement YP.[25] From a semantic point of view, I have already suggested that *un* introduces some sort of quantification. More precisely,

my claim is that, in the lexicalization pattern under study, *un* does not introduce a cardinal quantification, but rather an existential quantification of degrees.[26]

Let us consider some arguments in support of this hypothesis, i.e. that *un* is a D which quantifies a high degree.

First, it is usually the case that in transitive argument structures, no matter whether they are lexicalized or not, *un* introduces either a cardinal or an existential quantification of entities. The examples in (32) correspond to transitive argument structures, and they license a quantificational reading for *un*, either cardinal or existential.

(32) a. fer *un* tomb
make a walk 'To go for a walk'

b. *posar el / un cap com un tabal*
put the / a head as a drum 'To drive someone mad'

Comparing these data with (27), it is obvious that the illformedness of (27a) must be related to its being associated with a different lexical argument structure. This approach provides an understanding of the fact that, in correlation with the unergative argument structure that *fer sol* 'It's sunny' is associated with, at the level of logical structure it is neither the case that *sol* 'sun' denotes an individual entity, nor that *un sol* 'a sun' denotes a generalized quantifier.

That is, from a semantic perspective, *un* licenses, as expected, an existential quantification, but this is not an existential quantification of individual entities, because if it was, (27a) would be acceptable. If, instead, it is claimed that *un* introduces existential quantification of degrees, then this hypothesis clearly supports the property denoting interpretation associated with object bare nouns, and the denotation of high degree entailed from class 1 idioms.

Second, against both a quantification of referential entities of the determiner *un* and a variable status of the bare noun in class 1 idioms, it should be noticed that the NP cannot be the anaphoric antecedent of a pronoun, unless it has already lexicalized (the first underlined pronoun in (33b)).

(33) a. *Si *fa un sol de justícia* per Sant Joan, el farà tot el juliol
if makes a sun of justice at Saint Joan, CL make+FUT whole the July

b. **Té un morro que se'l trepitja* i el tindrà mentre faci aquesta feina[27]
has a snout that CL walks-on and CL have+FUT while make this work

Another relevant example is provided in (34), which is an attempt to coordinate two class 1 idioms forcing the existential quantification over entities. The sequence is fully ungrammatical.

(34) *Ahir *feia un fred que pelava* i avui en *fa un que glaça el pensament*
yesterday made a cold that cut and today CL makes a / one that freezes the thought

It should, however, be pointed out that an anaphoric relationship is possible between a third person pronoun and the D *un* under the interpretation that it introduces an existential quantification over degrees. Thus, (35) means that a high degree of coldness exists, relevant to a given context, which is claimed to hold at this moment in time and this specific degree will continue to hold until late spring.

(35) *Hace un frío de mil demonios* y lo seguirá haciendo hasta bien entrada la primavera
makes a cold of one-thousand devils and CL continue making until well entered the spring
'It's freezing cold and it will continue to be that cold until late the spring'

Third, it is also interesing to see what happens when a class 1 idiom interacts with a universal quantifier within a sentence.

(36) *Un frío de mil demonios* asoló todas las ciudades
a cold of one-thousand devils destroyed all the cities
'Freezing cold wheather brought each of the cities to stand still'

As expected, there are two possible readings for this sentence. One, according to which a particularly high degree of coldness exists, relevant to the context, and it is the case that this degree of coldness brought each of these cities to a stand-still. A second reading is such that, for each city being considered, there is a particularly high degree of coldness, not necessarily the same for each, which has has brought each of the cities to a stand-still. What (36) does not mean is that there is a particular cold, to which such and such applies.

Fourth, a distinction must be made between, on the one hand, degree modifiers which are often postnominal, and on the other hand, degree quantifiers which always occur in prenominal position. The data in (37) show that *un* merely supports the postnominal degree modification, and in this sense *un*…YP is in complementary distribution with other degree markers occurring in nonlexicalized patterns.

(37) a. Fa {massa, força, molt de, bastant de, més} fred
makes too much, quite, much of, lot of, more cold
'It's {too, really, very, more} cold'

b. *Fa {un massa, massa un} fred
makes a too much, too much a cold

c. *Fa força fred que talla
makes quite cold that cuts

d. *fa un fred que talla*

makes a cold cuts ‘It’s freezing cold’

Notice that omission of the YP is accepted if, and only if, specific instructions remain at the phonetic-articulatory interface which specify that *un* is not a pure support of the N, but rather an existential quantifier over degrees. Thus, (38) can only be accepted if *un* is interpreted as an intensifier.

(37) Fa un fred!

makes a cold ‘It’s so cold!’

To conclude, the sequence *un* + N + YP in class 1 idioms correspond structurally to the specifier, the head and the complement YP (PP, Relative Clause, AdvP) of an existentially quantified NP. The Determiner is neither optional, nor expletive; it is syntactically obligatory, and denotes existential quantification. In fact, it introduces existential quantification of degrees.[28] Therefore, if one were to assign the determiner *un* a meaning, this surely would not be a function from predicate meanings to generalized quantifier expressions.

This conclusion correlates with the interpretation of Nouns in class 1 idioms: the head Noun denotes a semantic entity which can be quantified of degrees, that is, a property. Therefore, it always has narrow scope with regard to any other quantifier that might occur within the clause. Under specific syntactic circumstances which have been described, not only mass / continuous nouns, but bare count / discrete singulars also, are logically interpreted as property denoting objects. The importance of this conclusion is that it leads us to expand the semantic classes attributed to NPs in Romance languages. Even though it is standardly assumed in the linguistic literature that bare nouns denote

kinds, bare count singulars in argument position of unergative argument structures denote properties, and therefore they can be subject to quantification over degrees.

5. The syntax of lexicalized light-verb structures

So far I have dealt with three different topics:

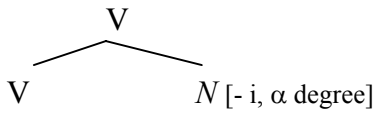
- The basic elements of the argument structures underlying (1) and (2).
- The basic characteristics of object noun interpretation in both unergative and in transitive argument structures.
- The basic properties of the D(eterminer) in both paradigms.

An appropriate structural account of the relevant lexicalization patterns involved in (1) and (2) is now required. From a conceptual view point, pattern 1 expresses a semantic conflation with degree, a cause plus degree synthesis, whereas pattern 2 expresses an abstract spatial relation.[29] [30] In this section I would like to show that at s-syntax (Hale – Keyser 1993) the representation corresponding to class 1 idiomatic expressions is the output of syntactic Merge between syntactic objects, followed by Head movement, whereas the representation corresponding to class 2 is a composite transitive argument structure.[31]

Let us first consider the syntax of lexicalized light verb expressions conflated with degree. I have already argued that at l-syntax the basic argument structure is an unergative configuration, as represented in (39). Notice that this structure corresponds to a monadic argument structure type, because it contains just one complement (see Hale –Keyser 1998: type (11a)). Furthermore, the complement N has two formal features: [- i], which stands for negative *internal structure*, and which characterizes both individuals and substances (Jackendoff 1991); and [α degree], which stands for the

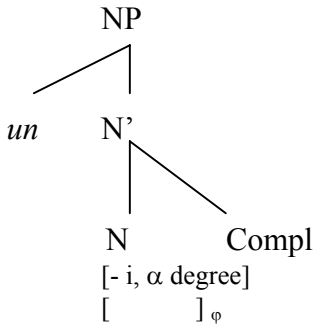
semantic value of this complement bare N (i.e. it can only denote properties and, therefore, it can be quantified over degrees).

(39)

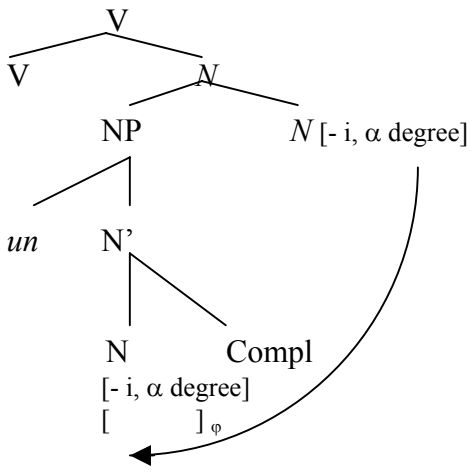


At s-syntax this syntactic object is Merged with the syntactic object represented in (40) to yield a combined output structure. What motivates Merge is the feature set on the object noun and, because it is not a movement rule but a fusion or substitution process, it leaves no trace. Notice that (40) is a quantified NP, to be interpreted as denoting existential quantification over degrees.[32] The output configuration looks like (41) with the NP adjoined to the head N. In a sense, Merge is the substantiation of a defective Noun, since -as mentioned at the beginning of Section 4- bare singular count nouns in object position are not expected in Romance.

(40)



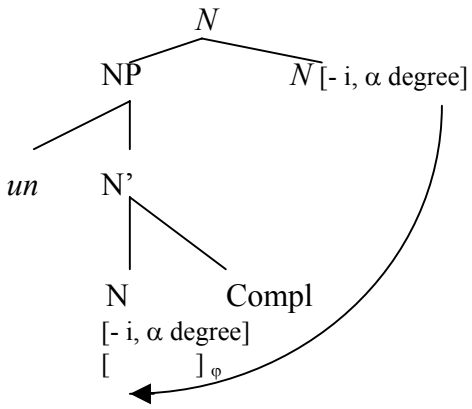
(41)



Once the syntactic fusion between the two independent syntactic objects (39) and (40) has occurred, an operation of Head movement is compulsory (see the arrow).[33] This is a process according to which the phonological matrix of the head of the complement N is introduced into the empty phonological matrix of the head of the adjoined constituent, if and only if the two heads share the same formal features.[34]

The output structure in (41) is to be interpreted at the syntax-semantics interface as expressing a high degree of a particular property which is the denotation of the head noun object complement of the analytic unergative structure in (39). If, instead of (39), the basic lexical argument structure contains just the head N, then the output of the Merge process would look like (42).

(42)

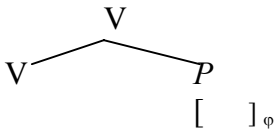


The idea is that an N can also Merge with a quantified NP under agreement conditions. This is how I would derive the lexicalized expressions listed in (12) which do not contain any light verb.

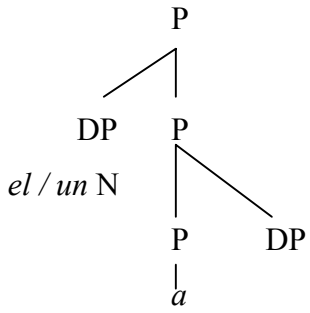
I now turn to the syntax of lexicalized light verb expressions in pattern 2. Assuming the structural types of lexical argument structure postulated by Hale – Keyser (1998), the structural configuration underlying class (2) idioms is a composite transitive argument structure which combines a unergative monadic head-complement structure with a dyadic prepositional structure.

The complement of the V in (43) is a P(reposition) with a null phonological matrix, which is the clue to motivate the generalized transformation which substitutes (44) for the phonologically empty P in (43), giving (45) as an output structure. In (44) P is to be associated to a spatial relation (notice that the prepositon *a* appears as a terminal node), with both specifier DP and complement DP arguments. In (43) and (45) V stands for a light verb expressing cause, either dynamic cause (e.g. *fer* 'make'*, posar* 'put') or static cause (e.g. *tenir* 'have') (Mateu – Amadas 2001).

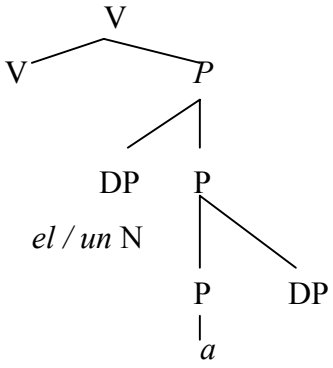
(43)



(44)



(45)



Insertion of a dyadic argument structure into a monadic argument structure gives an acceptable transitive structure as an output.

6. Conclusions

One of the predictions inferred from this discussion is that a complete analysis of the Romance lexicalization patterns illustrated in class 1 and class 2 idioms requires the following distinction to be made:

- a syntactic argument structure representation, responsible for the different pronominalization possibilities, for the determiner distribution, and for the contribution to the semantics of NPs,
- a logical form representation, where common nouns are properly interpreted as either kind denoting expressions or as property denoting objects), and
- a conceptual level, where metaphorical and metonymic interpretations of idioms are adequately accounted for by means of specific association rules mediating between syntactic structures and conceptual structures.

If predicate – argument structure is itself syntax, then idioms have syntax. On the one hand, the basic elements of the argument structure of class 1 idioms correspond to an unergative structure, which represents the analytic type of the simple head-complement configuration postulated by Hale – Keyser (1998). On the other hand, the basic elements of the argument structure of class 2 idioms correspond to a composite representation, combining a monadic head-complement configuration with a dyadic specifier-head-complement structure. In addition to their having different basic argument types, it must be concluded that these lexicalization patterns are formed in sentential or s-syntax (see Hale – Keyser 1993) by various means: (1) quantified structures can be adjoined to basic argument structures giving rise to combined syntactic objects, and (2) two basic argument structures can be combined into composite transitive structures.

This means that an appropriate mapping between syntax and semantics in the domain of the lexicalization patterns under study requires postulating various instantiations of Merge and Move. The fusion process postulated for the Romance pattern of class 1 idioms consists in adjoining an XP to a bare X, followed by Head movement. These operations must be distinguishable form both *incorporation* (in Baker's terms) and from *conflation* (in Hale-Keyser's terms). It can, however, be attributed to *conflation* in Talmy's cognitive sense. The fusion process postulated for the Romance pattern of class 2 idioms consists in inserting a dyadic argument structure into the complement position of a causative matrix verb, thus transitivizing a basic dyadic P projection.

The analysis put forward in this paper is also relevant for a complete semantic theory of bare nouns in Romance, and it accounts for the interpretation of bare count singulars as properties when they are in object position of an unergative argument structure. This conclusion complements Longobardi's (2001) hypothesis on the semantics of bare nouns in object position, according to which Romance bare nouns are only quantificational expressions (i.e. variables, indefinites, like overt indefinites and unlike proper names) which are either existentially or generically bound.

A further conclusion must be drawn with regard to the semantic status of *un* 'a'. As an existential quantifier, in addition to the possibility of quantifying over individual entities, predicates, and events, can also quantify over properties, thus entailing existential quantification over degrees.

Finally, I would like to suggest that the view of the lexicon which emerges from this study is that lexicalized light verb expressions (in particular, class 1 and class 2 idioms) are generated much in line with predictions in the theory of grammar known as Distributed Morphology (see Halle – Marantz 1993, 1994; Harley – Noyer 1999, 2000). Lexicalized or idiomatized expressions encode information which is distributed through

various components. First, within the computational component their general architecture is specified in terms of head-based licensing relations (see O'Grady 1998). The syntactic component also specifies their association with distinct basic argument structures and their submission to various types of Merge and Move operations (merger under adjunction, head-to-head movement, and fusion). Second, in the syntax-semantics interface component the logical properties of various nominal expressions and determiner expressions are adequately accounted for. And, third, in the encyclopaedia (or conceptual component) all unpredictable form and meaning relationships, i.e. all non-compositional (or figurative) associations between particular morphosyntactic structural descriptions and specific conceptual structures are properly accounted for.

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Notes

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[1] Although I shall not develop these ideas in this paper, I feel inclined to claim that, if the semantics of idiomatic structures is to be properly accounted for, argument structure is not to be identified with thematic structure: it is a purely syntactic representation of predicate-argument relations (in Hale and Keyser's terms), whereas thematic structure is a structural representation of conceptual relations (in Jackendoff's terms).

[2] See Espinal (2001) for an analysis of some structural and semantic aspects of nominal expressions within VP/PP idioms. In that paper the reading corresponding to object Nouns in VP/PP idioms is accounted for by arguing that they are property denoting expressions, and that they are subject to a process of complex predicate formation by N/Cl to V/P abstract incorporations. In Espinal (in press) the limit between V+NP/DP idiomatic constructions and light verb constructions focuses on the difference between property denoting objects (determined by L(exical)-selection within a predicate-argument structure) and regular objects (determined by θ-assignment within a thematic structure).

[3] See Sportiche (1999) for a proposal concerning a structural splitting between quantificational properties of XPs and thematic properties of predicates. My claim, with regard to one of the lexicalized patterns under study is that, in spite of their being generated independently, an existentially quantified NP can Merge with an unergative lexical structure if specific conditions apply.

[4] Of special interest to the topic presented here is the fact that similar examples to those given in class 1 are found in other Romance languages; for example, *avoir une faim de loup* in French; *hacer un frío de padre y muy señor mío, tener un sueño de miedo, tener un morro que se lo pisa* in Spanish; *ter uma fome de cão, estar um calor de assar passarinhos* in Portuguese; and *avere una lingua que taglia e cuce, avere un cervello da gallina, fare un fredo cane, fare un freddo boia, avere/essere una giornata da cani* in Italian; among others. The topic, related to the lexicalization pattern of light verb structures, is therefore of general relevance to this group of languages.

[5] Notice that some relevant data even show the possibility that an unaccusative verb (such as Romance verbs for 'be', which denotes a negative transition) may be the verbal head of class 1 idioms. See the data given in note 4.

[6] It is interesting to contrast (4b) with (i), which illustrates is the posibility of pronominalizing the bare N in a nonlexicalized sequence of the sort: light verb + *un* + N + relative clause.

(i) En Joan ha fet una pel·lícula que dura molt i la seva dona *n'*ha fet una que només dura tres quarts
D Joan has made a movie that lasts lot and the wife CL has made a / one that only lasts three quarters
'Joan made a movie that lasts a lot and his wife made one that only lasts three quarters of an hour'

[7] For the purposes of this paper, which intends to describe the correlation between argument structures and object noun interpretations, syntactic differences attributed to the fact that some idioms have expletive subjects, others have null objects within the relative clause, and still others have an object pronoun which must corefer with the subject of the light verb are not relevant.

[8] These examples have been obtained from a large corpus of over 15.000 Catalan idioms. Espinal (forthcoming).

[9] Notice that some lexicalized PP (e.g. Spanish *de miedo, de muerte* 'terribly'*, de la hostia* 'incredible'), when combined with nouns in the syntactic schema *un* + N + YP, no matter whether the head Noun is a mass noun (e.g. *hambre* 'hunger') or a count noun (e.g. *coche* 'car'), are associated with an interpretation of degree which is context (encyclopaedically) dependent -the third process postulated by Talmy (1985, 2000).

(i) a. Tengo un hambre *de miedo / de muerte*
have a hunger of fear / of death 'I'm terribly hungry'

b. Se ha comprado un coche *de la hostia*
CL has bought a car of the bash 'She has bought an incredible car'

[10] Other Catalan expressions following this schema, which works fairly well with nouns which are conceived as quasi-inalienable objects, are the following: *fer país* 'to praise your country'*, tener coche* 'to have a car'*, comprar casa* to buy a house'*, buscar piso* to look for a flat',

[11] See Reinhart (2000) for the postulation of a reduction lexical operation on θ roles which applies to a two place relation, such as *wash*, and reduces the relation to a property. According to Reinhart, reduction creates an intransitive entry by means of an operation (such as reflexivization) which preserves the external role.
An operation of merge or incorporation of properties has been postulated either at the lexicon for synthetic unergatives (Hale – Keyser 1997), at the syntax for noun interpretation in Indian languages (Baker 1988), at the syntax-semantics interface for noun incorporation in West Greenlandic (Van Geenhoven 1998) and for idiomatic constructions (Espinal 2001).

[12] An additional claim made by Mateu (2000) in this relational semantic analysis of argument structure is that X is always referential by definition.
It should pointed out, however, that this particular claim, which is consistent within a lexicalist approach, is not incompatible with a different claim made below in this paper, according to which, at a different level of representation -one which has nothing to do with argument structure, but with semantic interpretation- the complement of the causal relation present in an unergative structure denotes a property, not a referential argument.

[13] Strong evidence for this unergative status attributed to a sequence such as *fer sol* (lit. make sun) 'It's sunny' comes from lexicalized Catalan expressions such as *Plou i fa sol* (lit. rain and make sun) 'Sunny showers'*,* since true constituent conjunction requires identical types (see Partee 1987:119, among many others).

[14] Notice that the transitive structure in (21) is a composite structure which combines an unergative and an unaccusative structure. It has both a causative relational head R and a locational relational head r (which is abstract in the case of adjectival YP complements).

[15] From the vast amount of literature on the semantics of nouns, and in particular on the semantics of bare nouns, see Carlson (1977a, 1977b, 1999), Chierchia (1998), Longobardi (2001), McNally (1995), and Partee (1987).

[16] A general assumption of Longobardi's recent work (Longobardi 1996, 2001), is that Romance argument bare nouns are nothing but a type of indefinites (Heim 1982), like overt indefinites and unlike proper names. By contrast, English bare nouns are ambiguous between this quantificational interpretation of indefinites and a referential reading (i.e., directly kind denoting, in Carlson's 1977b terms), unlike overt indefinites and like proper names.

[17] Chierchia (1999:341) seems to omit the existence of singular count common nouns in argument position, other that P + N, when he claims that "In both Germanic and Romance, bare singular arguments are totally impossible (if the noun is not a mass)". Certainly, it is not the case that a V followed by a bare singular count N is a productive construction, but neither is it a rare configuration. Some relevant examples with bare nouns in object complement position of non-light verbs are the following: *guardar llit* 'to stay in bed'*, guardar lloc* 'to keep a seat'*, córrer / conèixer món* 'to globe-trot'*, passar llista* 'to call roll'*,* and many others. See also note 10, above.

[18] Chierchia (1998:343) concludes that: "If such [canonical] mapping is universal, then bare NP arguments cannot exist, as their type is not an argumental one. Each time one sees a bare NP argument, the category D must have been projected".
My point is that this conclusion must be restated in relation to unergative lexical argument structures.

[19] On the notion of incorporation, see also the initial work by Baker (1988), Van Geenhoven 's (1998) analysis of incorporation in semantic terms, and Van Valin's (1999) criticism on adding this process to the theory of grammar.

[20] This interpretation evokes various scalarity-based analyses which have been postulated in linguistic theory. See Rooth (1992) for an analysis of focused constituents, Portner – Zanuttini (2001) for *wh*-exclamatives, and Matuchansky (2001, 2002) for the complement of perception *seem*.
The semantics of class 1 idioms can be said to denote a specific high degree within a scalarity of grades of a particular property .

[21] Notice that the property denoting reading associated with object nominals in (1) and (15) has no connection with the type / token distinction, the mass / count distinction and the abstract / concrete distinction.
Jackendoff (1990:23) has already pointed out that, in spite of the fact that many of the categories support a type / token distinction, "Properties and amounts, however, do not so clearly differentiate tokens and types").

[22] Besides, each one of the denoted entities can also be shifted into a property (Partee 1987, Chierchia 1998). For example, a class 2 idiom such as *tenir el / un cap com un bombo* 'To be in a muddle' means that there is an entity, namely a head, which is mapped into a complex property, that of having a splitting headache (i.e., that of being all muddled).

(i) $\exists x$ [head (x)], such that Idx $\rightarrow \lambda x$ [X(x) (X = to have a splitting headache)] $\wedge \lambda P \exists y$ [X(y) $\wedge$ P(y)] (x)

[23] *Fer un sol* is only grammatical in the transitive sense of making, designing a sun.

[24] Somehow this reminds of the canonical subject-object asymmetry found among Romance languages: **Bambini sono venuti da noi* vs. *Ho preso biscutti con il mio latte* (Chierchia 1998:356, ex. (23a-b)). It is standardly assumed that we have to project D to turn NPs into arguments: in object position the null Dº will be licensed by the verbal head, but in subject position there is no suitable head that can act as a licenser and the sentence is ungrammatical. However, there is a significant difference between this asymmetry and the one observed in (29), since the ungrammaticality of (29b) shows that a null D is not licensed at all by the verbal head.

[25] In accordance with this observation Gross-Valli (1991:48) claim that: "on peut alors considérer la présence de l'article *un* comme un pivot de soutien du modifieur".

[26] I amb grateful to A. Ojeda for discussion on this issue.

[27] C. Picallo has pointed to the grammaticality of the sequences in (i):

(i) a. Si *fa un <u>sol</u> de justícia* per Sant Joan, <u>en</u> farà tot el juliol
if makes a sun of justice at saint Joan, CL make all the July
'If it's scorching hot in June, it will continue be hot in July'

b. *Té un <u>morro</u> que se'l trepitja* i <u>en</u> tindrà mentre visqui
has a snout that CL walks-on and CL have while lives
'(S)he has a brass neck and will have it the wholoe live'

However, it should be pointed out that in these examples the antecedent of the underlined pronoun is neither the whole NP, nor the N + YP complement, but the single underlined bare noun.

[28] Notice that in the paradigm under study *un* 'a' is not a cardinal quantifier, as tested by the fact that the noun can never combine with numerals.

[29] Notice that the conflated meaning exists only phrasally, but not lexically; that is, there is not a synthetic verb whose meaning expresses high degree as in class 1 idioms. In other words, the lexicalization pattern

in (1) is a combination of light verb constructions with overtly phrasal lexical entries, and the system where these lexicalized relationships are merged appropriately is syntax, more exactly s-syntax.

[30] It should be noted that the notion of Conflation was originally postulated as a semantic term within the cognitive semantics tradition. Thus, Talmy's (1972, 1985, 2000) conflation has been used to refer to a way of representing meanings in surface forms; more specifically, to the fact that a V may express at once both motion and manner or its cause, or motion and path, or motion and figure, etc.
This notion, however, has been reinterpreted in syntactic terms. According to Hale – Keyser (1993, 1997, 1998, 1999) and Mateu – Rigau (in press) the term conflation is used as a concomitant of Merge, to refer to a subtype of incorporation involved in the derivation of denominal and deadjectival verbs, "restricted to the process according to which the phonological matrix of the head of a complement C is introduced into the empty phonological matrix of the head which selects (and is accordingly ister to) C" (H-K 1998:81). In later work Hale-Keyser (2000:10) reinterpret conflation as an operation on labels which consists in the process of copying phonetic features.

[31] I have benefited at this point from discussion with C. Picallo.

[32] According to Chomsky (1995:226) the Merge operation "takes a pair of syntactic objects (SO_i, SO_j) and replaces them by a new combined syntactic object $SO_{i,j}$".

[33] It should also be pointed out that this syntactic fusion between two syntactic objects differs from incorporation in two respects: firstly, it leaves no trace and, secondly, it involves syntactic merge between two projections (which can be a lexical and a functional one) rather than syntactic merge within a single projection.
As Jackendoff (1990:290) notes fusion is a variety of a unification operation, as developed in lexical-functional grammar and unification-based approaches to grammar (Kaplan – Bresnan 1982, Shieber 1986).

[34] It is assumed that it is a property of phonologically empty heads that they attract the phonological matrix of the complement N only when they share the formal features of the complement N.