Universals and Grammatical Categories: A Distributed Morphology Analysis of Spanish Colour Terms*

Antonio Fábregas
Instituto Universitario Ortega y Gasset / Universidad Autónoma de Madrid
webfabregas@hotmail.com

1. Two Ways to Define Grammatical Categories

A universal property of natural languages that has become well-established as a result of the typological studies of the last century is that every language has grammatical categories. This explains that every grammatical theory has been concerned with the existence of different word classes – each one with distinguishing properties – that establish among them formal and conceptual relations. Therefore, one of their aims is to provide an adequate description of grammatical categories that gives an account of what the possible relationships are. In addition to this, some theories also try to propose an explanation of how a word is assigned to a particular grammatical category.

There are two approaches to explain categorisation. One answer to this question, which is rooted in philosophical tradition and can be traced back to as far as Aristotle's *Poetics*, argues that the grammatical category of a word is dependent on the meaning expressed by it. The basic tenet of this semantic approach is that there is a restricted universal set of non-definable concepts that are stored and combined in the human conceptual apparatus; from this level they are somehow projected as grammatical objects and they take a morpho-syntactic disguise. Consequently, syntax / morphology is a level that interprets semantic information, which has neither generative nor explanatory power. Word classes are the result of the grammaticalisation of notional or cognitive constructs. Semantics – and, perhaps, pragmatics – is the only autonomous level, and morpho-syntax is just a formal device to embody meaning.

This idea has been recently renewed in the morphological and syntactic literature (cf. Dixon 1982, Wierzbicka 1980, 1987, 1996, Langacker 1999, Anderson 1997 and references therein). To have one explicit statement of the contemporary tenets of this view, let us consider the following quotes:

(1) a. I reject, however, the assumption that semantic representations, to be plausible, must be postulated jointly with rules for translating those representations into surface syntax. Recent modes favouring "autonomous syntax" notwithstanding, I would suggest that **it is semantics, not syntax, which has the right to autonomy**. The task of uncovering semantic structures is **locally prior to the task of postulating syntactic rules**.

[Apud Wierzbicka 1980: 31; emphasis mine]

* I would like to thank Soledad Varela, Violeta Demonte, Carlos Piera and Luis Eguren for judgements and usefull discussion; I am indebted to Leanna Smith for linguistic advice in the English translation of the paper. The research reported here is partially supported by a grant FPU AP2001-0299 of the Spanish MECD and the project BFF 2000 – 1307 – C03 – 02, *La variación gramatical. Variación micro y macro paramétrica en morfología y en sintaxis. Teoría, descripción, aplicaciones*. This paper would have never been made were it not for Carlota.

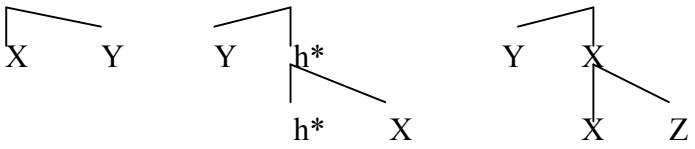
G. Booij, E. Guevara, A. Ralli, S. Sgroi & S. Scalise (eds.), *Morphology and Linguistic Typology, On-line Proceedings of the Fourth Mediterranean Morphology Meeting (MMM4) Catania 21-23 September 2003*, University of Bologna, 2005. URL http://morbo.lingue.unibo.it/mmm/

> b. We work from the assumption that **the syntactic properties of a lexical item can largely be predicted from its semantic description**. Semantics is thus held to be prior to syntax. The ways in which syntactic properties can be predicted on the basis of semantic representations are complex, and are not yet fully understood.
>
> [Apud Dixon 1982: 8; emphasis mine]

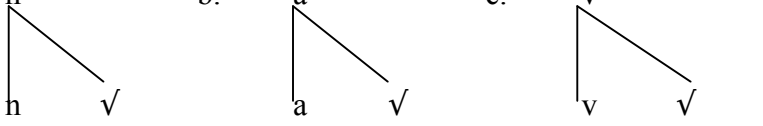
The other view held in contemporary linguistics roots in the development of formal syntax. The syntactic approach tries to get a definition of grammatical categories without reference to their conceptual import. In this view, grammatical categories are defined through formal means. Syntax and morphology have only very restrained access to semantic information, if they have some access at all. Due to the modularity hypothesis, grammar is blind to concepts; therefore, they cannot be invoked to explain formal properties of grammar. Consequently, the only level able to explain why a word is included in a particular grammatical category is the morpho-syntactic level. Moreover, as one of its strongest statements, this theory predicts that the independently motivated morpho-syntactic operations must be able to explain the categorisation of a word.

In the last ten years, two independently developed theories, both of them rooted in the generative framework, have argued for a formal distinction of grammatical categories. These are the Distributed Morphology framework (Halle & Marantz 1993, Marantz 1997) and the works on argument structure by Hale & Keyser (1993, 1998). The two theories agree in the following fact: syntax alone determines the category of an element, so no element belongs to a grammatical category prior to its syntactic projection. H&K admit the existence of a lexical-syntactic level where argumental structure is defined; DM argues that there is only one syntax, which is able to generate both sentences and words. H&K propose that the argumental structure of a head determines its grammatical category: there are only four lexical categories, which correspond to the four logically possible combinations of heads with a specifier and a complement (2). As for the categorisation in DM, it is claimed that category-less roots acquire their category through merge with a functional head (3).

(2) a. X b. X c. h* d. X



(3) a. n b. a c. v



(a) mosk- -os(o) mosk- -e(ar) mosk-

(2a) corresponds to a non relational category, a noun; (2b) defines a head with complement and without specifier, a verb; (2c) defines a head in need of a specifier that has to merge with a head able to provide it with that specifier, an adjective; finally, (2d)

defines a relational category with both specifier and complement, a preposition[1]. As for (3), there is a root without category that is defined as a noun in (3a), through merging with the lexical head *n*, as an adjective by *a* in (3b) and as a verb by *v* in (3c). Note that lexical heads materialise as affixes.

What the semantic view and the syntactic view have in common is that they are attempts to avoid the stipulation of category labels for every single morpheme of a language. In contrast, Lexicalist Morphology approaches need to state the category of every individual element in the lexicon (cf. Chomsky 1970, Siegel 1976, Lieber 1980, Selkirk 1982; note that Jackendoff 1990 also has to employ stipulative category labels).

Trying to choose between these two views on conceptual grounds may be a scholastic exercise. However, they make different predictions concerning the data. The syntactic view predicts that an element that expresses a certain concept may project in different categories, without change of conceptual meaning, depending on the formal requirements of the syntactic configuration. In other words: as what counts is syntax, it predicts that we will find the very same concept projected in different morpho-syntactic categories provided that the syntactic configurations are different. This type of mismatch will be problematic for the semantic view, for it predicts that syntax is not independent of concepts and, unless implemented with additional machinery, it will be expected that a concept will determine the syntactic configuration. Therefore, every change in syntax must be rooted on a change in conceptualisation (cf. Langacker 1999).

In this paper we will argue that there are empirical cases that confirm the predictions of the syntactic view and cast doubt on the accuracy of the semantic view. The relevant data are taken from Fábregas (2002) and regard the formal behaviour of Spanish Colour Terms (SCT).

2. The Puzzling Behaviour of Spanish Colour Nouns

Morphological properties of Spanish adjectives are quite clear. In the first place, adjectives show agreement in gender and number with a noun that must be interpreted as its semantic subject. In (4a), where the A shows feminine singular agreement, the only available reading of the sentence is that the event of outrunning the boys took place when Juana was exhausted: in (4b), where A shows masculine plural agreement, the event takes place when the boys are exhausted.

(4) a. Juan-a adelant-ó a l-os muchach-os agotad-a
Juan-f.sg out.run-PT.3SG (ac) the.M.PL boy-M.PL exhausted-F.SG

b. Juan-a adelant-ó a l-os muchach-os agotad-os
Juan-f.sg out.run-PT.3SG (ac) the.M.PL boy-M.PL exhausted-M.PL

Adjectives may combine with syntactic and morphological devices to express grade. Therefore, they may bemodified by *muy, bastante* and *demasiado* as well as by the comparative adverbs *más* and *menos*, which license a comparative phrase (5). Adjectives in Spanish may also exhibit grade morphology, as the suffix *-isim-* (6).

[1] In H&K framework, it is possible for the two languages to parameterise the argument structure configurations in different categories. It is plausible, though, that English and Spanish have selected the same equivalences (cf. Mateu 2002), which we will assume.

(5) a. Pedro es {muy / bastante / demasiado} alto
Pedro is {very / quite / enough} tall
'Pedro is very tall, quite tall, tall enough'

b. Pedro es { mas / menos} alto (que Teresa)
Pedro is {more / less} tall (than Teresa)
'Pedro is taller / less tall than Teresa'

On the other hand, nouns do not show either of these properties. Noun inflection in gender and number implies a semantic difference, and therefore N's do not agree (6).

(6) un gato ≠ una gata, un gato ≠ unos gatos

As for grade syntax and morphology, ungrammaticality usually arises when an N is combined with adverbs such as *muy* and *más* (7a)[2], and with *menos, bastante* and *suficiente* when they do not stand for noun-modifying quantifiers (7b). Grammaticality judgements are even clearer with the morphological superlative *-isim-* (7c).

(7) a. *muy mesa, *más choza[3]

b. #bastante despertador, #suficiente arroz, #menos lobo

c. *reloj-isim-o, *carter-isim-a...

With these facts in mind, let us consider the following set of Spanish Colour Terms (SCT) data:

(8) a. un-as cas-as roj-as
some-f.pl house-f.pl red-f.pl
'Some red houses'

b. un-as cas-as roj-isim-as
some-f.pl house-f.pl red-SPL-f.pl
'Some very red houses'

c. un-as cas-as más roj-as que la sangre
some-f.pl house-f.pl more red-f.pl than the blood
'Some houses redder than blood'

(9) a. un-as cas-as {roj-o / *roj-as} sangre
some-f.pl house-f.pl {red-m.sg / red-f.pl} blood
'Some blood-red houses'

[2] A very reduced group of these combinations is possible, but note that in those cases the N has to be interpreted as a property, like in muy hombre, which *grosso modo* corresponds to *muy masculino*, very masculine.
[3] Unless reinterpreted as properties, which is semantically implausible.

b. *un-as cas-as roj-sim-o sangre
some-f.pl house-f.pl red-SPL-m.pl blood
'*Some very blood red houses'

c. *un-as cas-as más rojo sangre
some-f.pl house-f.pl more red blood
'*Some more blood red houses'

In (8) the colour term behaves as expected from an A: (8a) shows that it agrees in gender and number with the N whose property it denotes. It can also combine with the superlative morpheme, as (8b) witnesses, as well as with a grade adverb that licenses a comparative clause, as (8c) shows. However, the very same element, in (9) does not have adjectival qualities. (9a) shows that agreement with the head noun is prohibited and causes ungrammaticality; note that the indefinite determiner still has to show agreement with the same head noun. As can be seen in (9b), the colour term is no more combinable with a superlative morpheme and in (9c) it can be seen that the comparative adverb is no longer available.

Actually, the (negative) properties that the colour term displays in (9) are those that one would expect from an N. In (10) it is demonstrated that Spanish CoTs also have the positive properties of N's. Namely, the colour term is combinable with determiners and quantifiers (10a, 10b), and can be the complement of a P^0 (10c).

(10) a. Este rojo oscuro no me gusta nada
'I don't like this (tone of) dark red'

b. Hay dos azules distintos en este cuadro
'In this painting, there are two different blues'

c. Lo pintó de verde
'She painted it [P, of] green'

As Ns, SCTs show the regular behaviour of Mass Nouns, denoting a shapeless non-delimited substance. When inflected in plural, they express taxonomic differences between tones of that particular colour: *varios azules* may mean various types of blue.

We find the same pattern in other languages. For an illustration, consider the following data from Italian (11) and English (12).

(11) a. una giacca grigia

b. una giacca {grigio / *grigia}scuro

c. una giacca {grigio / *grigia} perla

(12) a. a red(der) carpet

b. a dark red(*der) carpet

c. a yellow(er) carpet

d. a sulphury yellow(*er) carpet

The traditional analysis of sentences such as (10a) and (10b) was given by Bello (1847). This grammarian argued that in the constructions of (9) and (10) the colour term is actually an A that agrees with an elided N, *colour*. This analysis cannot be maintained for a number of reasons. First of all, note that this situation wouldn't preclude the colour term to take a superlative morpheme or to be combined with a comparative adverb, for it would still be an A. Secondly, if this analysis is correct, we would expect the colour term to surface in feminine in those languages – such as French – where the N *colour* is feminine. This prediction is not confirmed, though (13).

(13) un jaune clair / * une jaune claire

Finally, it is a fact of the structure of Spanish NP's that the indefinite determiner *un* must surface as *uno* when followed by an empty noun (14a) (Bernstein 1993). If we had an elided noun we wouldn't expect sentences such as (14b) to be grammatical, but they are.

(14) a. Un libro de matemáticas y un-*(o) de literatura
'One book of maths and another one of literature'

b. Un rojo brillante
'A bright red'

Sentences where the indefinite must appear as *uno* in front of the N do exist, but, crucially, they have a different meaning. In (15a) the speaker refers to a certain tone of blue; in (15b), he or she refers to a certain individual, whose type must be inferred, with the distinguishing property that it is blue.

(15) a. un azul 'lit. a blue'

b. uno azul 'one blue'

Therefore, we must admit that SCTs surface as Ns and As.

The context where the CT will appear as an N can be determined on syntactic grounds. Colour terms manifest themselves as Ns if they are modified by adjectives that denote the hue or the intensity of the colour (16).

(16) a. unas alfombras {rojo brillante / *rojas brillantes}
[lit. *some carpets {red.MASC.SG bright.MASC.SG / *red.FEM.PL bright.FEM.PL }*]

b. unas alfombras azul verdoso oscuro
'dark greenish blue'

c. unas alfombras amarillo grisáceo pálido
'pale greyish yellow'

d. unas alfombras verde amarillento brillante
'bright yellowish green'

e. unas alfombras azul eléctrico
'electric blue'

Among the adjectives that can modify CT we find two groups. In the first group we find non-basic colour terms, usually morphologically derived from basic colour terms, such as *amarillento*, *verdoso*, *rojizo*, *blanquecino*, *negruzco* and *grisáceo*. These precise the hue of the colour expressed by the colour. In the second group there are those adjectives that denote the intensity or the brightness of the hue expressed by the colour noun and the optional hue adjective, such as *brillante*, *pálido*, *oscuro*, *claro*, *apagado*, *eléctrico* and *intenso*. The unmarked order between these two types of adjectives is that in which the hue adjective precedes the intensity adjective.

The second syntactic context where they show as N's is when accompanied by another noun specifying the hue of the colour (17).

(17) a. unas paredes {blanco hueso / *blancas hueso}
[lit. *some walls {white.M.SG bone / *white.FEM.SG bone}*]

b. unas paredes azul cielo
'sky blue'

c. unas paredes verde manzana
'apple green'

d. unas paredes rojo fuego
'fire red'

e. unas paredes gris perla
'pearl grey'

Only nouns that express substances or entities which are straightforwardly and recognisably characterised by a particular colour can participate in this construction (Fernández Ramírez 1951).

Finally, this same situation takes place when colour terms are selected by a preposition (18).

(18) a. teñir el jersey de {rojo / *rojísimo}
'lit. *to dye the jersey of {red / *red.SUPERLATIVE}*'

b. pintar la pared de negro
'to paint the wall [of] black'

c. hacer verde con azul y amarillo
'to make green with blue and yellow'

Colour Terms project as A elsewhere[4].

If we want to avoid the mere stipulation that there is a process of conversion here that applies to colour terms and transforms adjectives into nouns, we have to attempt another analysis. To our knowledge, just positing a rule that takes colour adjectives and turn them into nouns does not explain what is happening here, but only highlights the fact that in a given context adjectives cannot appear and, in their place, nouns are placed. Although this is a logically possible analysis, we think that it actually means to give up trying to find an explanation. In the next section I provide an attempt of finding an explanation within the Distributed Morphology framework.

3. Minimalist Colour Terms

In the Minimalist Framework (Chomsky 1995, 1999, 2000, 2001) syntactic operations are feature-driven. There are two different types of features: interpretable features and uninterpretable features. While the former are necessary in LF, the latter cannot be read in this level and therefore must be eliminated before the syntactic derivation is transferred. If an uninterpretable feature fails to be erased, the derivation crashes, which means ungrammaticality.

Feature erasure is accomplished through agreement. Agreement is, actually, a two-fold operation. In the first place, it requires identification of an element that contains interpretable features of the same kind than those in need to be erased, and accord of the uninterpretable feature, which is unvalued, with the interpretable one. Secondly, the uninterpretable feature is checked and erased (19).

(19) 1. [uR] ... [iR]

2. Accord ([uR], [iR])

3. Check [uR] with [iR] and Erase [uR].

Spanish As contain, at least, a set of uninterpretable features related to the nominal properties gender and number. We will represent this technically as an uninterpretable set of phi-features or [uϕ]. This forces the A to check those features with

[4] A possible analysis of these data that could explain this behaviour cannot be mantained. To our mind, these constructions are clearly not compounds. Their behaviour, at least in the dialect of Spanish that the people that I have tested – and my own dialect –, has nothing to do with what we expect from compounds. These structures can be coordinated (i), noun elipsis is possible with them (ii), alpha-movement is possible with a part of the construction (iii) and it is also possible to modify only part of the structure that is formed (iv). Given the Lexical Integrity Hypothesis, this proves that they are not compounds.

(i) a. un amarillo oscuro y verdoso.
'Lit. a yellow dark and greenish'

(ii) b. un amarillo oscuro y un-o claro.
'Lit. a yellow dark and another light'

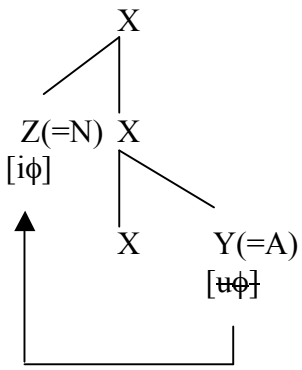
(iii) c. lo verdoso$_i$ que es este amarillo t_i
'Lit. how greenish is this yellow'

(iv) d. un amarillo [terriblemente [verdoso]]
'lit. a yellow [terribly [greenish]]'

a legitimate element, that is, an element which contains an interpretable set of phi-features, [iϕ]. In Spanish, only N's contain [iϕ]. This means that A agrees with N.

This structure is represented in (20). Note that the element to be interpreted as A needs a specifier to satisfy its semantic conditions; this is provided by X, a relational element, closely following H&K's proposal (cf. Mateu 2002). This spec position is occupied by N. A's [uϕ] enters, then, in an Accord relation with N's [iϕ], their value is assigned to A's features and they are checked. The derivation will converge in FL. Following the spirit of Chomsky´s (2001) proposal about the necessity of u-features, namely, that their checking gives rise to semantic relations, we propose that, as a result of this checking operation, the At(tributive) categorial role of A is saturated through theta identification with the R(eferential) categorial role of the N (Spencer 1999), which means that it will be interpreted as its subject.

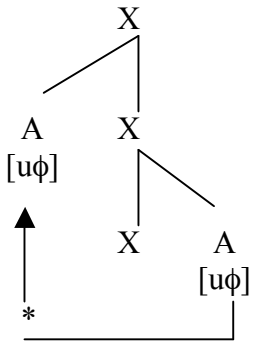
(20)



This structure explains the close connection between agreement and adjectival predication – remember the data in (4) –.

Now let us consider the first context where CT must obligatorily project as N. Remember that in those situations they are modified by an A expressing hue or intensity. Crucially, the logical subject of that property is the CT. The hue is a property of the colour denoted, (and so it is the intensity) not of the head noun to which the CT refers. The CT, then, must occupy [Spec X] position in the tree. However, if CT is an A, checking of the hue / intensity A's u-features won't be possible, for Accord must be established as a prerequisite to checking, and Accord takes place only between i-features and u-features belonging to the same class. Therefore, (21) will crash at the Interfaces, for there are u-features unvalued and unchecked.

(21)



The subject of the A must contain [iϕ] for the derivation to be convergent; therefore, the category of the subject must be N. Note that we will expect the CT to

surface as A if every other A in the NP referred to other elements in the construction. This prediction is confirmed. Consider the minimal pair in (22).

(22) a. unas alfombras rojas amarillentas.

b. unas alfombras rojo amarillento.

There is a slight difference between (22a) and (22b). In (22a) the hue A *amarillentas* takes the N alfombras as its subject, and so it does the CT. Therefore, the meaning of (22a) is a carpet that is both red and yellowish. In contrast, in (22b) the hue A is predicated of the CT, which must surface as N, and therefore the expression denotes a carpet which is red, and the hue of that red is yellowish.

As for the second context, that in which an N modified the CT, it can be explained provided that we take seriously the role of features in syntactic operations. Through languages, adjectives are modifiers of nouns, and not the opposite. We will show that merge operations correctly predict this. Consider (23).

(23) a. b.

Feature driven operations are automatic, compulsory and cannot be directed by semantic requisites. Then, as a result of its merge with N, A unavoidably checks each one of its phi u-features.

Following Chomsky (2000, 2001), when a head has erased every one of its uninterpretable features, it becomes inert for further operations, which means that it becomes inactive. What this means is that when A is merged with N, A becomes inactive because it has automatically checked all its unintepretable features.

The head of a construction is the element that projects its label in the construction. As the label is the only information available to merge, the label must be syntactically active. If it were inert, merge won´t be able to apply to it, because inert elements are inactive to syntactic operations.

This somehow oblique reasoning is actually deriving a very intuitive statement (24):

(24) Heads must be syntactically active in their own projections.

This is why A must be a modifier of N and not the opposite, which explains why the structures in (24) are ungrammatical.

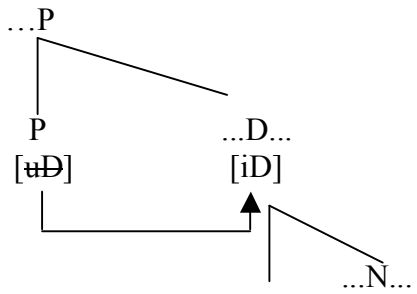
Crucially, (23) has to merge with some element. Why? Because it contains one constituent, N, that has not checked its u-feature Case, and A is not a legitimate probe for that operation. Therefore, what we have in (23) is a structure that will crash, and, consequently, is agrammatical.

Note that the structure in (20) actually predicts that N, and not A, will be the syntactically active constituent in further operations. N is active, so it can transmit its

features to the head X through standard spec-head agreement. Therefore, when merged with another element, N will be capable of entering in a checking relation with that head, and not A. It is predicted, then, that every extended projection of (20) will count as an extended projection of N.

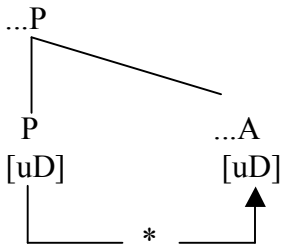
The third context can be explained in a similar vein if we assume that Spanish prepositions contain an uninterpretable D feature. This feature is motivated by the fact that P's can denote referential entities, but, as opposed to deictic adverbs, only when they take a nominal complement. What this means is that for the PP constituent to be convergent, P must combine with an element that contains among its i-features [iD]. Obvioulsy, D itself must contain such a feature. However, in Spanish, D can only merge with an NP, not with an AP. The only category that contains such a feature in Spanish is N. Therefore, a convergent derivation for a projection headed by P will be as in (26).

(26)



Let us consider now what would happen if the CT projected as A in this configuration. As APs do not contain [iD], for they are never referential nor combinable with D, [uD] would never get checked and, as in the other case, the derivation will crash when transferred to the interfaces (27).

(27)



We have intended to show that a syntactic explanation can give account of the puzzling behaviour of Spanish CT in a principled manner. Semantically driven theories of categorisation cannot explain these data in an accurate manner. Note that the conceptual meaning of the CT does not change when projected as an N and when projected as an A. Therefore, if conceptual semantics is prior to syntax, the different categorisation of CT is unpredicted and remains unexplained. As for structural differences in meaning, they are actually predicted by syntax, for each syntactic configuration has a specific semantic import when interpreted in LF (H&K 1993, 1997, Mateu 2002).

However, conceptual semantics does play a role in the construction, but its intervention takes place once the syntactic structure has been built and its constituents have been categorised. The relevant question at this point, obviously, is why colour terms can behave in such a way, while other elements – such as those denoting shapes

or psychological states – cannot. The answer to this is in the Encyclopaedia. In DM, vocabulary items are inserted post-syntactically and then the conceptual non-structurally predictable information associated to those items is accessed. This information is listed in the Encyclopaedia, where the entries would contain every kind of cultural information. The encyclopaedic entry of a CT would give information concerning the special conceptual status of colours in the human mind. As Quine (1970) pointed out, every substance is characterised by a certain colour. This invites us to regard colour not exactly as an accidental property of substances, but as a component of substances. Due to this ambiguous conceptual status, colour can be regarded as a potentially referential entity as well as a quality of referential entities. Almost every other nominal concept would be regarded as either a quality of entities, without independent existence out of those entities, or as an entity, and, if syntax categorised it in a different class, a pragmatically marked reading would arise.

These facts are related to other aspects of the behaviour of Spanish CT to which we will not have time to make justice here, such as the use of CT to define political, ethnic and professional groups of people, in a manner that reminds us of relational adjectives.

References

Anderson, J.M. (1997), *A Notional Theory of Syntactic Categories*, Cambridge, Cambridge University Press.

Bello, A. (1847 [1970]), *Gramática de la lengua castellana destinada al uso de los americanos*, Sopena, Buenos Aires.

Bernstein, J.B. (1993), *Topics in the Syntax of Nominal Structure across Romance*, Doctoral Dissertation, The City University of New York.

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

Chomsky, N. (1998), *Minimalist Inquiries: The Framework*, MIT Working Papers in Linguistics 15.

Chomsky, N. (2000), *Derivation by phase*, in M. Kenstowicz, (ed.), *Kenneth Hale: A Life in Language*, Cambridge (Mass.), MIT Press.

Chomsky, N. (2001), *Beyond Explanatory Adequacy*, MIT Working Papers in Linguistics.

Dixon, R.M.W. (1982), *Where have all the Adjectives Gone?*, The Hague, Mouton.

Fábregas, A. (2002), *Gramática de los Nombres de Color en Español Actual*, Trabajo de Investigación Avanzado, Instituto Universitario Ortega y Gasset / Universidad Complutense de Madrid / Universidad Autónoma de Madrid.

Fábregas, A. (2003), *Los verbos de realización gradual: estructura léxica*, "RSEL - Revista española de lingüística" 32/2, 475–506.

Fernández Ramírez, S. (1951), *Gramática española. El Nombre*, Madrid, Arco-Libros.

Hale, K. & S.J. Keyser (1993), *On argument structure and the lexical representation of syntactic relations*, in K. Hale & J. Keyser (ed.), *The View from Building 20*, Cambridge (Mass.), MIT Press, 53–110.

Hale, K. & S. J. Keyser (1998), *The Basic Elements of argument structure*, in H. Harley (ed.), *Papers from the Upenn/ MIT roundtable on argument structure and aspect*, Cambridge (Mass.), MIT Working Papers in Linguistics, 73–118.

Halle, M. & A. Marantz (1993), *Distributed Morphology and the Pieces of Inflection*", in K. Hale & S. J. Keyser (eds.), *The View from Building 20*, Cambridge (Mass.), MIT Press, 111–176.

Higginbotham, J. (1985), *On Semantics*, "Linguistic Inquiry" 16, 395–420.

Langacker, R.W. (1999), *Grammar and Conceptualization*, Berlin/New York, Walter de Gruyter.

Marantz, A. (1997), *No Escape from Syntax: Don`t Try Morphological Analysis in the Privacy of Your Own Lexicon*, "UPenn Working Papers in Linguistics" 4:2, 201–225.

Mateu, J. (2002), *Argument Structure: Relational Construal at the Syntax-Semantics Interface*, Doctoral dissertation, UAB.

Quine, W.O. (1970), *Las raíces de la referencia*, Madrid, Revista de Occidente.

Spencer, A. (1999), *Transposition and Argument Structure*, in G. Booij & J.van Marle (eds.) "Yearbook of Morphology" 1998, Dordrecht, Kluwer Academic Publishers.

Wierzbicka, A. (1980), *Lingua Mentalis. The Semantics of Natural Language*, Sydney / New York, Academic Press.