

# Working hard on the concepts of *hardness* and *dureza*: A contrastive study of the words *hard* and *duro*.

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## 1 Introduction

It has already been suggested (Sweetser, 1990) that the same lexical principles, such as metaphoric transfers, may represent universals in the sense that they are available to speakers of different languages. Although languages may lexicalize concepts in different ways, certain cognitive processes are cross-linguistic and result in similar metaphoric transfers in different languages (Verdaguer & Poch 1997). Such metaphoric transfers allow sense changes from the physical to the abstract. In fact, most abstract terms originally were terms for physical objects. Thus, these metaphoric transfers may depict a continuum between linguo-cognitive abilities, such as logical thinking and conceptualization of the world (Lakoff & Johnson 1999).

For researchers in the field of cognitive linguistics, linguistic structure stands for cognition in that a particular linguistic expression is associated with a particular way of encoding a given situation. As Lee claims, there is a strong “interrelationship between thought, meaning and linguistic structure” (2001:1). Sinclair stresses that it would be wrong to suppose that grammar patterns and meaning are independent levels since “it seems that there is a strong tendency for sense and syntax to be associated” (1991:65). Thus, as patterns are central to the description of language (Hunston & Francis 1999), the present case study is aimed at exploring this interrelationship between meaning and syntactic patterns through an analysis of the abstract uses of *hard~duro* in both English and Spanish, respectively.

To this purpose, we decided to conduct a contrastive study between the uses of the node word *duro* in Spanish and *hard* in English. The general concept of

*toughness/dureza* was selected so as to illustrate that cognitive processes are cross-linguistic and, therefore, they usually show similar metaphoric transfers in different languages. We were especially interested not only in the perception of the concept of *dureza/toughness* in both languages but also in exploring how an adjective-adverb such as *hard* in English and *duro* in Spanish applies to more abstract contexts.

## 2 Case study

Corpus analysis has enabled us to capture the variety of uses of both *hard* and *duro*, which has provided us with a deep descriptive insight into language use. Data have been drawn from the close analysis of the uses of *hard* in the data-bank of the British National Corpus,<sup>1</sup> the Webcorp<sup>2</sup> and our Electronic Database of Scientific English Lexical Collocations (SciE-Lex) along with the uses of *duro/arduo/fuerte/difícil* in the CREA (Corpus de la Real Academia<sup>3</sup>). As can be seen in figure 1, the analysis of collocates taken from the concordance lines of both *hard* and *duro* reveals that such originally physical adjectives have undergone a process of semantic shift and, as a consequence, can be found in more abstract contexts.

Concrete meaning		→				Abstract meaning	
↓						↓	
English	Spanish	English		Spanish			
		Adj+N	V+Adv	Adj+N	V+Adv		
<i>hard stone</i>	<i>piedra dura</i>	<i>hard work</i>	<i>work hard</i>	<i>trabajo duro</i>	<i>trabajar duro</i>		
<i>hard surface</i>	<i>superficie dura</i>	<i>hard times</i>		<i>tiempos duros,</i> <i>difíciles</i>			
<i>hard material</i>	<i>material duro</i>	<i>hard silence</i>		<i>denso silencio</i>			
<i>hard mattress</i>	<i>colchón duro</i>	<i>hard look</i>		<i>mirada dura,</i> <i>penetrante</i>			

Figure 1: Semantic network of *hard* ~ *duro*

With the aim of establishing an extensive semantic network of the general concept of *dureza*, we have searched for those connotations of “esfuerzo, dificultad, severidad, contundencia” in which human beings are involved, as for instance:

(1) *Aquí se trata sobre el **duro** trabajo de los campesinos.*

(2) *Vivimos tiempos **duros**, insolidarios y con falta de comunicación.*

(3) *Murió con un gesto **duro** y crispado.*

Turning then to the general concept of *toughness* in English, the same semantic groups could be traced:

(4) *It all adds up to a summer of **hard** work for staff at the wildlife hospital near Aylesbury.*

(5) *He had a **hard** time in the army.*

(6) *He turned to the artist, with smiling lips and cold, **hard** eyes.*

This fact enabled us to state a certain degree of isomorphism between the recurrent concepts of both *dureza* and *toughness* in Spanish and English, respectively (see figure 2).

A closer analysis of the syntactic structures *hard ~ duro* are associated with allows us to state that in Spanish, the node word *duro* can be used as a modifier, either preceding or following the noun,<sup>4</sup> or as an adverb being part of the complementation of a VP. Similarly, the English word *hard* can be used as an attributive adjective modifying a noun—in the context of a NP—or as a predicative adjective or an adverb being subcategorised by a verb, in the context of a VP.

In those cases where human beings are involved, we have traced similar semantic relations associated with the pattern [**Adj + N**]NP on the one hand, and with the pattern [**V + Adv**]VP, on the other. The analysis of the corpora has enabled us to find out that these semantic relations fall into three main categories depending on the kind of participation of the human beings involved. We distinguish between three semantic roles:

- **participant**, which refers to a human being taking part in a State of Affairs (SoA);
- **undergoer** of a SoA; and
- **individual**, which stands for a metonymy of a human being and which is perceived through their attitude or behaviour.

These relations are shown in figure 3.

When dealing with *hard~duro* as an adjective, we have observed that the NP they belong to may refer to either an individual or a state of affairs (SoA). The

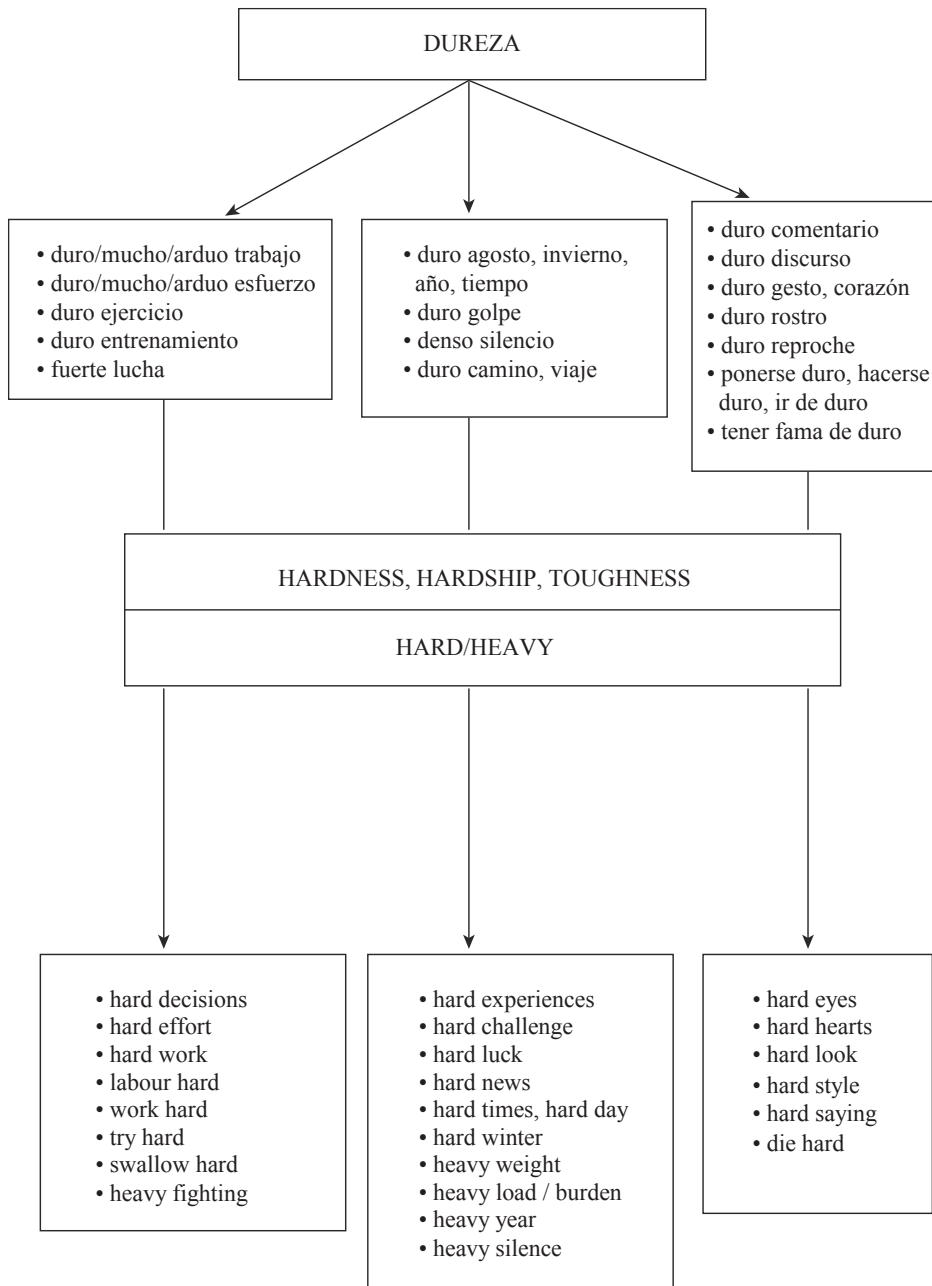


Figure 2: Semantic network of hard~duro

Semantic Relation	English	Spanish
PARTICIPANT [NP/VP]	a) When hard decisions need to be made, Jimmy will not be found. b) I had never worked so hard at anything in my life.	a) Al cabo de varios meses de entrenamiento duro se corre el riesgo de “pasarse” de entrenamiento. b) Ellos empezaron a trabajar duro, duro.
UNDERGOER[NP]	a) I may give you some advice based on long and hard experience. b) You’ve already had your share of hard luck.	a) Ha sido un año duro pero creo que ya está superado. b) Fue un duro golpe del cual me costó recuperarme.
INDIVIDUAL[NP]	a) Eve’s face tightened into that hard look that he used to have before. b) Maria looked straight at him with hard eyes.	a) La gente suponía que era un gesto duro, que demostraba su sangre fría. b) Le propinó un duro comentario acerca de su situación laboral.

Figure 3: Semantic relations.

former is expressed by a metonymy of a human being, which shows a consistent collocation with the nominals *eyes /ojos*, *hearts /corazones*, *look/mirada*, whilst the latter refers to either the participant of an action or the undergoer of a SoA. The examples in figure 4 show this close interrelationship between form and sense in much more detail.

We have found out, however, that most of the instances of *hard/duro* analysed in the corpora under study refer to a SoA. When referring to the undergoers of a SoA, *hard/duro* are frequently used as attributive adjectives and occur with NPs such as (*hard times~tiempos duros, difíciles* || *hard silence~denso silencio*); as for instance:

(7) *Times are **hard** for small businessmen.*

(8) *Fue un agosto muy **duro**.*

(9) *He added another log to the fire, using the small task to break the **hard** silence.*

(10) *El **duro** silencio era custodio de temibles resonancias.*

whereas when the human being involved in the SoA is a participant, this might not only be expressed by a NP (*hard work ~ duro trabajo* || *hard fighting~dura lucha* || *hard training~duro entrenamiento*) but also by an adverb which forms part of

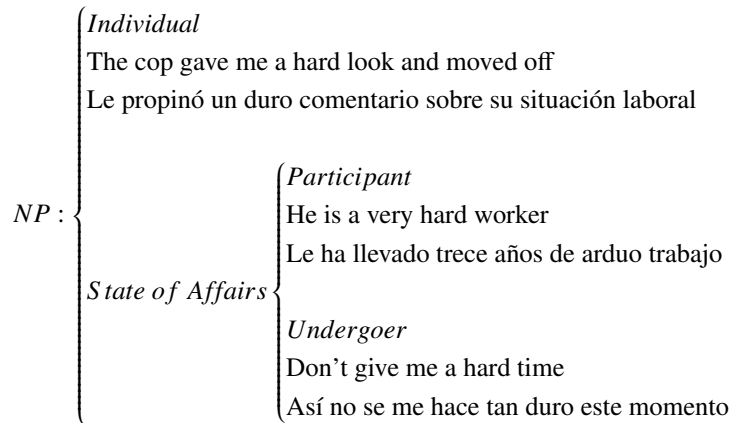


Figure 4: Semantic roles.

the valence of a given verb (*work hard~trabajar duro* || *train hard~entrenar duro, mucho* ||).

This fact should not come as a surprise as all the nominals the attributive adjective *hard~duro* collocates with when referring to a participant are associated with an action, and actions are conveyed through verbs: *work hard, labour hard / trabajar duro vs hard work/arduo trabajo, entrenamiento duro*. See the following examples:

- (11) *Central and local governments worked **hard** to improved methods.*
- (12) *The working trades labour **hard**.*
- (13) *Lleva trabajando **duro** muchos años.*
- (14) *He will have to face imprisonment with **hard** work for not less than three years.*
- (15) *Le espera un **arduo** trabajo. La casa necesita una limpieza a fondo.*
- (16) *El único secreto es el entrenamiento **duro** y metódico.*

### 3 Conclusion

This paper has shown that *hard* and *duro* have undergone a similar process of metaphoric transfer and show a similar syntactic and semantic behaviour, provid-

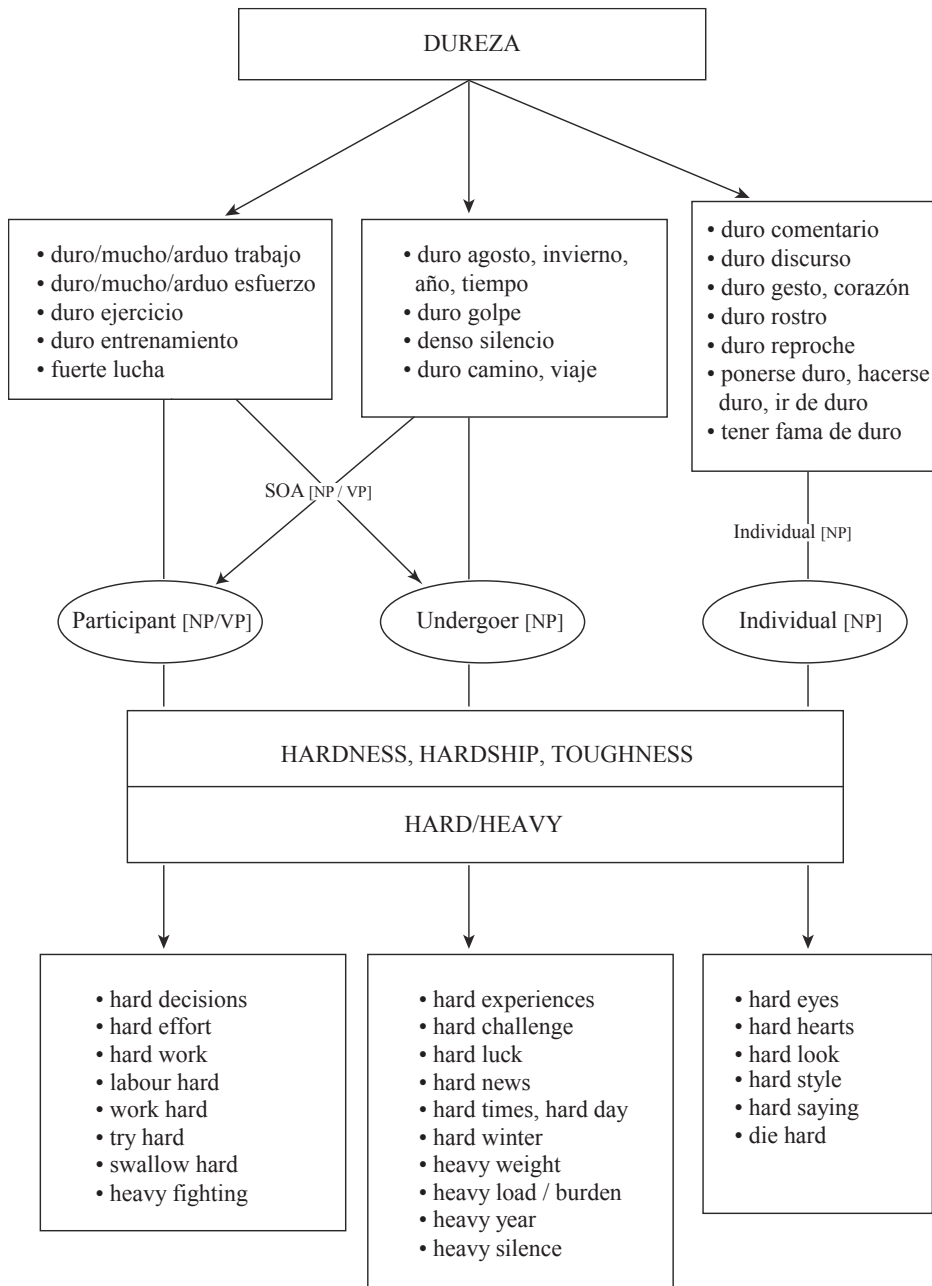


Figure 5: Semantic network of hard~duro

ing further evidence that syntax and semantics cannot be studied in isolation since they are interrelated. Thus, the implications of the present study are that a language description should bring to the front this interrelationship.

We would like to point out that the linguistic context has proved to be of great importance in the identification of word meaning both in English and in Spanish. Such an isomorphism between both languages has enabled us to establish similar semantic relations (participant, undergoer and individual) associated with the same syntactic patterns ([Adj + N] and [V + Adv]), as can be seen in the following figure 5.

## Notes

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- 1. textttwww.natcorp.ox.ac.uk
- 2. textttwww.webcorp.org.uk
- 3. textttwww.rae.es
- 4. Notice that in Spanish, “explicative adjectives” may well precede or follow the nominal without changing the meaning of the NP. It is true, however, that the pattern Adj+N is more commonly used in literature.

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