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A journalistic corpus: a methodology for the analysis of the financial crisis in Spain

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Abstract

In this paper, we propose a methodological approach to the linguistic study of a journalistic corpus. It analyzes the monitoring of the financial crisis in Spain in 2012 by two of the most important Spanish newspapers. The paper describes ongoing research into expressions of opinion in the discourse of the news about the financial crisis in Spain. In other words, this corpus-driven study investigates the expression of opinions through language in order to develop a semantic analysis of newspaper discourse. The methodological approach involves both quantitative and qualitative analysis. The investigation focuses on the analysis of the language used to present and evaluate the events related to the financial crisis as a prelude to unmask the ideologies implicit in texts.

Keywords: Evaluative language; financial crisis; journalistic corpus; linguistic analysis; social actors.

1. Introduction

This article describes the methodology that was designed and implemented so as to extract evaluative instances from a corpus of newspaper articles. Our major objective is to outline the stages involved in the process of analyzing our corpus through a selection of examples which highlight the linguistic choices made by journalists to build, maintain and intensify their relationships with readers. We will see how the combination of both quantitative and

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qualitative procedures together with corpus-driven techniques provides the basis for a description of evaluative categories in newspaper discourse.

The research focuses on the analysis of a corpus developed from newspaper articles that allows us to grasp the semantic meaning of the opinion sections of *El Pais* and *El Mundo*, the major newspapers in Spain in terms of dissemination and as representatives in the written media of Spanish bipartisanship; *El País* related to the social democratic party (*PSOE*) and El Mundo (*Partido Popular*) to the conservative party. Both political parties are those who have had the responsibility of government in Spain in the period of the economic crisis. The initial target is to provide a snapshot of the publications in the above media throughout one year (2012), four years after its beginning with the bankruptcy of the U.S. investment bank Lehman Brothers and other mortgage companies in 2008. The corpus, which we have called *Corpus de la Crisis Financiera (CCF* from now on), is a diachronic corpus as we have worked on a quarterly basis, which allows the researcher to see how the situation evolves.

The research is being developed with the idea that the journalist, in our case, the written press, uses a series of lexico-grammatical resources in their articles, either to express their own feelings or to put words into the mouth of the main social actors, that is, the names of the principal actors involved in the financial crisis. As we all know, the financial crisis in Spain has had and is having a major social impact, and has strongly impacted on the lives of Spanish citizens. This is a historic moment of great importance in the Spanish society. In this sense, we can state that it is an event which contains the contributing factors to newsworthiness identified by Warren (1975): currency, proximity, consequences, personal relevance, suspense, rarity, conflict, sex, excitement and progress. Another aspect to be considered is that of the subjective factor, which depends on the particular readers of each publication. Subjectivity depends on the reader's interpretation of the news event and the particular treatment that different media give to the same event within the same day. We will discover how journalists carry out a linguistic construction of social reality in their articles.

The concept of evaluation in texts has been essential in our study. The study of evaluative resources in various disciplines has been object of study for many years. Linguists have addressed the issue of evaluation from different perspectives: semantic or functional as in the case of Martin and White (2005), discoursal (Hunston, 1994) and lexico-grammatical (Biber, 1995, 2006). Other related studies are Hyland (1996); Thetela (1997); Hunston (2010).

2. Corpus description and methodology

The methodology implemented in our research begins with corpus compilation and design to then analyzing the CCF by applying Corpus Linguistics techniques (frequency lists, keywords, concordance lines and recurring patterns). With regards to corpus development, the CCF was collected and analyzed, as mentioned above, on a quarterly basis, so that research questions could be both replicated and reformulated as the study was underway. Table 1 below shows how metadata have been extracted from each of the texts included in the CCF and then transferred to a Microsoft Excel spreadsheet:

Table 1. CCF: Metadata.

Newspaper	Date	Author / Editor	Article (genre)	Text id.	No. of words
El País	01/01/2012	CARLOS E. CUÉ	Reportaje	EP_01_01_12	2.300
El Mundo	02/01/2012	CARLOS CUESTA	Columna_opinión	OEM_02_01_12	446

The spreadsheet designed for the CCF includes the name of the papers we have analyzed. In this research they are twofold: El Mundo and El Pais, both in their opinion section (we identify them with the acronyms OEM and OEP, respectively) and the economy section of El País (EP). The articles in our corpus are listed in chronological order (from January, 2012 to December, 2012). The third column corresponds to the author or editor of the texts (the journalist who has written an article, a letter written to a newspaper by a reader in order to respond to a previous article or to offer an opinion, the columnist or the expert who express their views). Editorials are unsigned as newspapers use this section to express their own ideological views. Articles in the CCF are, moreover, classified according to their genre. They fall into objective informative genres (news chronicles and interviews, for example) and subjective opinion genres (editorials, opinion articles, letters to the editor). Each text is associated with a hyperlink that forms the document skeleton of the CCF (text id.). Therefore, the corpus can be easily accessed for consultation. The last column shows the number of words of each text, which will give us the total number of words in the corpus (3.254.499 words). The corpus as a whole consists of a total of 5.473 articles.

The following table provides a summary of the different tasks performed throughout the study:

Table 2. Methodology: Stages in the research .

CCF: Design and analysis with Wordsmith Tools version 4.0 + Ucinet (Social Network Analysis) + manual interpretation
OBJECTIVE 1: Collect and analyze a database for the study of the financial crisis in Spain newspaper discourse (2012)
OBJECTIVE 2: Collect and organize the documents on a quarterly basis (newspaper/section)
OBJECTIVE 3: Generate word lists (newspaper/section)
OBJECTIVE 4: Design comparative tables of most frequent words (quarterly; position 20)
OBJECTIVE 5: Identify the key social actors of the crisis (12 entities): collocates and concordance lines. Draw semantic networks
OBJECTIVE 6: Extract abstract nouns in CCF
OBJECTIVE 7: Select the adjectives which collocate with each social actor
OBJECTIVE 8: Establish semantic categories for the adjectives
OBJECTIVE 9: Analyze concordance lines manually and assign labels to instances of evaluative language. Collect most common labels. Transfer labels to an Excel spreadsheet with illustrative examples
OBJECTIVE 10: Analyze whole texts (editorials): macro-structure and evaluative language

As can be seen from the different stages involved in the study, the methodology implemented combines computer-aided approaches to text analysis with manual interpretation of the results obtained statistically in earlier stages. Our initial hypothesis is that a corpus of economic articles and its subsequent processing and linguistic and computer analysis is an appropriate methodology to extract the main social actors, to uncover the main events and explore how they both are evaluated. In other words; what are the entities and scenarios of the current financial crisis? Is there any linguistic interrelation between these entities? How do editors deal with the *semantic battle* being waged between the social actors in the news? The use of different computer tools has provided us with word lists from our CCF. With them we have identified the main social actors and their collocates: what characters come on to the stage and associated with what terms? The research has also developed methods related to social network analysis (Hanneman and Riddle, 2005). Abstract nouns have been analyzed manually, as they are terms with high semantic density and highly expressive. We have also explored our social actors and their accompanying adjectives in order to categorize them semantically. The final stages (objectives 9 and 10) in the research involved extending our scope to longer units of meaning (phrases, concordance lines, paragraphs and texts). The results section in this paper will provide an overview of the most outstanding features found in the CCF.

3. Results

3.1. CCF: Quantitative analysis

Quantitative analysis of Corpus Financial Crisis (CCF), which involves knowing the rate of frequency and other statistical aspects of different elements in the journalistic texts studied, has provided data on the words and structures used with high frequency rates. The most frequent words in the corpus are, as expected, terms related to economy, institutions, countries and people involved in this major event. It is worth mentioning the fact that we do not find words such as *ciudadanos*, *pueblo*, *población*, or other terms related to the people most affected by the crisis. The following table shows the wordlist for the 20 most frequent words in our corpus in the first quarter of 2012.

Table 3. *CCF*: Wordlist

El País (1st quarter)	Opinión El Mundo (1st quarter)	Opinión El País (1st quarter)
Position /Frequency	**Position /Frequency**	**Position /Frequency**
1.MILLONES(1.827)	4. MILLONES (377)	10. MILLONES (254)
2.GOBIERNO (1.002)	1. GOBIERNO (740)	1. GOBIERNO (432)
3. ESPAÑA (937)	2. ESPAÑA (414)	4. ESPAÑA (327)
4. EUROS (851)	16. EUROS (177)	22. EURO. (149)
5. DEUDA (786)	18. DEUDA (162)	11. DEUDA (227)
6. ECONOMÍA (624)	11. ECONOMÍA (217)	3. ECONOMÍA (372)
7.BANCO (594)	36. BANCOS (101)	39. BANCO (117)
8. REFORMA (524)	5. REFORMA (367)	5. REFORMA (296)
9. CRISIS (522)	9. CRISIS (247)	2. CRISIS (400)
10. DÉFICIT (492)	6. DÉFICIT (327)	6. DÉFICIT (293)
11. ENTIDADES (446)	84. ENTIDADES (65)	97. ENTIDADES (66)
12. GRECIA (434)	115. GRECIA (52)	36.GRECIA (125)
13. MERCADO (414)	48.MERCADOS (92)	20. MERCADO (158)
14. SECTOR (384)	33. SECTOR (108)	70. SECTOR (83)
15. LABORAL (341)	8. LABORAL (250)	12. LABORAL (220)
16. EMPLEO (326)	20. EMPLEO (148)	8. EMPLEO (290)
17. EMPRESAS (326)	23. EMPRESAS (146)	14. EMPRESAS (194)
18. MEDIDAS (323)	24. MEDIDAS (141)	31. MEDIDAS (136)
19. EUROPA (314)	29. EUROPA (115)	16. EUROPEA (251)
20. MINISTRO (311)	30. MINISTRO (115)	100. MINISTRO (65)

Moreover, the quantitative approach to the corpus has provided information on the major actors or relevant entities of the financial crisis and their context, i.e. the linguistic environment, in which these characters appear (collocates and concordance lines). Table 4 below illustrates the main social actors in the four quarters of 2012.

Table 4. Social Actors in the CCF

	SOCIAL ACTORS (Q1)	SOCIAL ACTORS (Q2)	SOCIAL ACTORS (Q3)	SOCIAL ACTORS (Q4)
1.	RAJOY	RAJOY	RAJOY	RAJOY
2.	GUINDOS	GUINDOS	DRAGHI	GUINDOS
3.	MONTORO	MERKEL	MERKEL	DRAGHI
4.	ZAPATERO	RATO	GUINDOS	MERKEL
5.	MERKEL	HOLLANDE	MONTORO	MONTORO
6.	RATO	ZAPATERO	RATO	RATO
7.	DRAGHI	DRAGHI	ZAPATERO	OBAMA
8.	MONTI	MONTORO	HOLLANDE	ZAPATERO
9.	BÁÑEZ	MONTI	WEIDMANN	LAGARDE
10.	S. DE SANTAMARIA	FDZ. ORDOÑEZ	S. DE SANTAMARÍA	REHN
11.	CAMERON	GOIRIGOLZARRI	ALMUNIA	BÁÑEZ
12.	OBAMA	LAGARDE	GOIRIGOLZARRI	HOLLANDE

As we can see, the main characters in the crisis are the same and they have similar rankings throughout the year. In the second quarter we find more '*European actors'* on stage as news contents focus on European events.

The analytical method we have adopted has provided evidence about certain semantic categories that co-occur with these entities: generic (*gobierno, mercado, empresas*), specific (*Europa, España, Grecia*), quantitative (*millones*) and qualitative (*crisis*) terms. We detected nouns with a strong semantic density related to the field of economics and, curiously, we found some examples which one might expect to express a positive meaning but in our texts they take on a negative connotation. For example, the term *rescate* can give us an idea of something positive, a release. However, in our journalistic corpus it means a bailout for Spain, an economic burden, thus it is negative. Another example is the word *reforma*. If we talk about reforming, we think of a renovation to improve things. But in terms of labour or economic reform, the idea we have is that our rights or purchasing power will be reduced.

Matrices were generated from these co-occurrences and transferred to a spreadsheet. Then, each of these matrices was transferred to the Ucinet program and, finally, the networks were visualized with the Netdraw utility. Based on the results obtained, we suggest that it may be viable to extract and to represent the semantic interaction of the main participants of major social events in our society by using corpus linguistics methods in combination with the formulations of network theory. Ucinet is a tool for the representation of social networks. One can analyse the form in which individuals or organizations are connected and define the position that these occupy in the network, the groups and global structure of the network, knowledge and information flows within the network and network relations which involve reciprocal influence. Examples of this kind of research can be found in Newman (2001), Molina and Muñoz (2002), Sanz (2003), González Alcaide et al. (2006). What we are dealing with is what could be

called *social networks of language* in which the individuals or *actors* are not only the members of a group, but also terms (related to the financial crisis), and the links are the relationships among them. Metaphorically speaking, in the same way as in social networks, we are dealing with considerations regarding the type of interactions between individuals: the number of times our participants meet certain users in the system (other social actors or their collocates) will imply a more or less significant/relevant relationship (in our case, conceptual and semantic density). Figure 1 below shows the network of the main social actor in the CCF, the Prime Minister of Spain (Mariano Rajoy) and his collocates. This is a simple network, as it only involves one single actor.
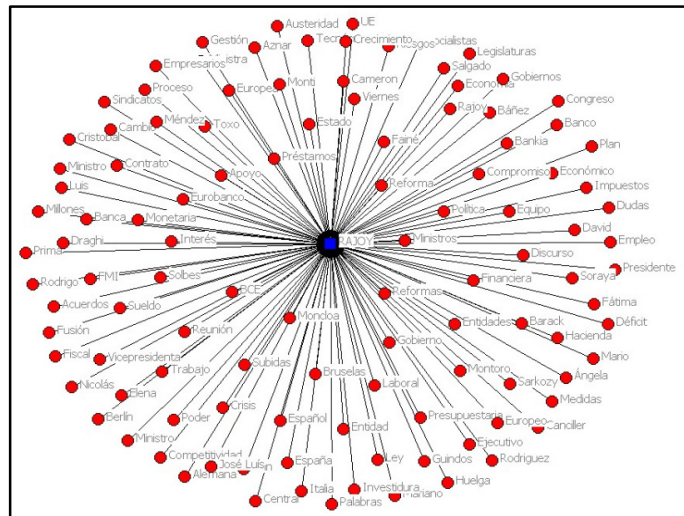

Figure 1. Semantic network: Rajoy and his collocates

Different feelings, that is, judgments, emotions and attitudes have also been categorized, according to the principles of Appraisal Theory (Martin, 2000; Martin and White, 2005). Under this theory emotions and attitudes have been detected. Adjectives have been manually selected from the collocates of each social actor, either adjectives with positive connotation (*notable, efectiva, competitivas*) or with negative meaning (*preocupante, fracasado*). They have been grouped under three main categories: Attitude, Engagement and Graduation (Martin, 2000). Each of these systems includes a subset of values by which texts (writers) express and negotiate their ideological position. It is worth mentioning the results found for "Judgement", which evaluates human individuals or groups according to social conventions, i.e. what is morally or legally accepted by institutionalised norms and regulations (normality, capacity, tenacity, property, veracity, unclear). Adjectives which collocate with our social actors in the CCF for this category express how they are assessed in terms of honesty, integrity and ethical behaviour: *falso, hipócrita, laxo, rencoroso, incapaz, inútil, mediocre, sincero, sabio, solvente.*

3.2. Qualitative interpretation of evaluative acts

However, statistical analysis methods have produced examples which show that in the texts the journalist is making use of linguistic structures that go beyond the selection of individual lexical items, i.e., single words. Sometimes, the author uses semantic units, with great expressive richness that require further analysis and interpretation, regardless of the software tools used in the early stages of the study. Therefore, in the next stage of the research we deal with qualitative analysis and manual interpretation in order to propose a categorization of feelings. Often, it is clear that some terms are per se evaluative, expressing subjectivity and opinion. Nevertheless, texts

sometimes contain an implicit sense (for example in the form of irony), masking the evaluative nature of certain words or expressions.

A sample of concordance lines from the twelve social actors was taken and, then, each of these lines was explored to extract the message the author wants to convey about what individuals said, how they behaved or, even, what the journalist thinks about them. The method adopted was to identify, collect and sort the values or emotions contained in the texts. We identified various nuances in the message, which were translated into a series of labels that reflect meanings that may be present in the text either in the form of various linguistic realizations or that the reader should interpret or decode using their prior knowledge. These evaluative semantic labels are the following:

1. Assessment: This category includes the positive / negative opinion that the author wants to express.
2. Rhetorical devices: Through this category we identified stylistic devices used by journalists. The most common are: irony, antithesis, metaphor, contrast, comparison, periphrasis, pun, paradox, rhetorical question, hyperbole, allegory and metonymy.
3. Quotes: The journalist reproduces in them the exact words spoken by the characters or other news agents with the aim to distance themselves from the opinions expressed by them.
4. Sentiment: In this category we established whether the author applauds or condemns the words or behaviour of a social actor.
5. Reference: The journalist interacts with the reader using culturally known expressions (shared cultural knowledge). These may be sayings or references familiar to the reader which come from the film, the literary or sporting fields.
6. Neologism: It is a very common technique in which the author introduces terms of their own creation, or adapted from other languages, or combines elements commonly used with another semantic content, to give the text more eloquence and thus attract the attention of the interlocutor.
7. Qualifying adjectives: We collected under this category adjectives with a high semantic density with which the author wants to depict an action or behaviour.

The following examples from the CCF illustrate this idea:

- *después de regresar triunfante de Bruselas, en donde* <u>*habló por señas*</u>*, Rajoy recibe una* <u>*puñalada trapera; tras resignarse al 5,3%*</u> *.* (Irony)
- *(...) pueden resultar más nocivas que las ocurrencias* <u>*zapatéticas*</u>*. Es verdad que Rajoy solo lleva unas semanas sentado en la* <u>*silla curul*</u> *y que es necesario (...).* (Neologism: invented word – Zapatero + patético; intertextuality: reference to the Roman Empire)
- *Las previsiones de Fátima Báñez y Cristóbal Montoro* <u>*han saltado por los aires*</u>. (Metaphor)
- <u>*"Que cada palo aguante su vela"*</u>*, señaló el ministro Cristóbal Montoro a finales de mayo*. (Reference: saying)
- *Montoro tendrá sus* <u>*'hombres de negro'*</u>. (Intertextuality: reference to films)
- Valeriano Gómez a Montoro: <u>"Usted es el ministro más irresponsable de España"</u> (Quotes)

The examples selected for each actor show that each of the instances contain information that would go unnoticed when analyzing corpus terms individually. By contrast, the study of longer stretches of text reveals a number of ideas either explicitly or implicitly expressed which the reader will perceive unconsciously. The examples gathered by this method were then transferred to a spreadsheet under the different semantic categories of evaluation.

After analyzing the concordance lines selected, we took our research a step forward by exploring full texts: their macro-structure and their core characteristics. We took as initial samples texts from editorials in the CCF as it is an opinion genre that, as Martínez Albertos (1983: 379) states, judge a news event of special importance and reflect the ideological stance of the newspaper. Firstly, we identified the discursive categories expressed in different parts of the texts (Hulteng, 1973). Table 5 below shows the communicative functions in our texts. As can be seen, a common macro-structure in newspaper editorials has been detected:

Table 5. Macro-structure: discursive categories in editorials (CCF)

Text 1: *Rajoy sabe al menos cuál es el buen camino*
Title: Evaluative / initial hypothesis
Body: Statement of news
Body: Statement of opinion / events
Body: Argumentation and assessment / analysis / appeal to authority / call for action
Body Argumentation and assessment / analysis / appeal to authority / call for action / future prospects
Ending: Call for action
Reformulation of title (repetition)

Text 2: *Presupuesto depresivo*
Title: Evaluative /hypothesis/key words
Body: Statement and assessment of news / prediction of future events
Body:Reformulation of title (repetition) / assessment of news / future prospects
Body: Analysis and assessment
Ending: Deduction of the previous arguments / appeal to authority
Reformulation of title (repetition)/ call for action / future prospects

Text 3: *Rajoy ha esquivado bien el KO, ahora debe ganar el combate*
Title: evaluative / hypothesis / appeal to reader (implicit)
Body: Statement and assessment of news
Body: Statement and assessment of news / information / argumentation and assessment /
analysis / future prospects and predictions
Ending: Prediction of future events / call for action / appeal to authority
Reformulation of title (repetition)

Next, we examined how opinions, feelings and emotions are organized and presented. We noted who is doing the evaluation, what is being evaluated and how evaluation is present in texts. The analysis of the first two texts on the same news (the presentation of State budgets) reveals the sign and ideology of each of the media that published them. While *El Mundo* uses words of comfort and reassurance (*sabe*, *camino*, *al menos*), El País from the title to the closing statement is explicitly condemning the same action in a tone of anguish and despair iteratively: *depresivos, crudeza, pobreza, angustia*.

Table 6. Evaluative instances in editorials (CCF)

Text 1: *Rajoy sabe al menos cuál es el buen camino*
Rajoy **sabe** al menos cuál es el **buen** camino
(…) iniciar el camino de las reformas estructurales que necesita la sociedad española.
Mucho le queda por hacer, aunque hay que **celebrar** que por lo menos tenga claro el camino.
(…) iniciar el camino de las reformas estructurales que necesita la sociedad española.
Mucho le queda por hacer, aunque hay que **celebrar** que por lo menos tenga claro el camino.

Text 2: *Presupuesto depresivo*

Presupuesto **depresivo**

El Presupuesto retrata con **crudeza**, sin matices, la situación de una economía pública que, despúes de años de prosperidad, ha ido **perdiendo** margen de maniobra paulatinamente desde 2009 y hoy se encuentra en una situación de **pobreza** (…).

El Presupuesto es **depresivo** y refleja con cierta exactitud la situación de **angustia**

(…) prolongará la **travesía del desierto**. Dicho está: la política de **ajuste** es una obligación inmediata; pero la de reactivación económica, aunque implique **subida de impuestos**, es imprescindible.

Presupuesto **depresivo.**

Text 3: *Rajoy ha esquivado bien el KO, ahora debe ganar el combate*

Rajoy ha **esquivado bien** el KO, ahora debe ganar el combate.

España **ha esquivado** el KO, no ha besado la lona, pero el combate continúa.

Our analysis provides evidences for the linguistics choices made by the media to attract public opinion on a major social event, the financial crisis in Spain. The resources identified at this stage include techniques used by journalists to enact relationships with their readers (repetition, intertextuality, interpersonal metaphors) to shape their own social reality. Figure 2 outlines the methodology developed and implemented towards a semantic profile of media discourse.
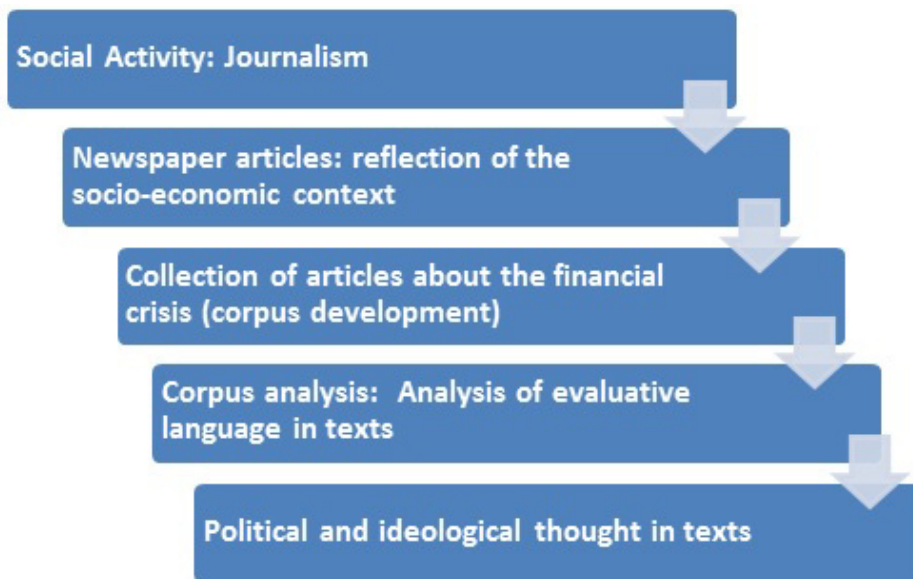

Figure 2. Methodology for the analysis of the financial crisis in Spain

4. Conclusions

This article focuses on the dialectical relationship between news and its assessment where news is a textual type and assessment is explored with regard to the form, content and structure of this type of text. Evaluation is a tool used for the expression of the writer's opinion, to build relationships between writer and reader (with persuasive purposes, in the case of journalistic genres) and to organize text (Thompson and Hunston, 2000).

The semantic categories suggested above for the analysis of evaluation in written texts involve corpus-driven techniques. The use of computer analytical methods (word lists, key words, collocates, concordance lines, n-gram clusters) allows processing of large amounts of data and, therefore, collecting representative samples of language use. However, manual interpretation of the statistical results obtained reveals both explicit and implicit instances of evaluation as the analysis is extended from individual salient features to longer meaningful patterns of discourse elements. We have begun to analyze how evaluation acts are present throughout texts even where there are no explicit signs of evaluative / attitudinal language. Evaluation acts can be found not only within short chunks of text but over larger stretches of discourse.

As we have seen, there is a semantic prosody of evaluation acts that has a discourse function in extended units of meaning in journalistic writing. Evaluation acts contribute to give newspaper articles texture and structure. Moreover, the evaluative instances identified in the CCF tend to appear in texts in a cumulative way. Throughout texts, there are threads and waves of evaluation that permeate the text with value judgements and personal meaning.

In this paper we have seen how the media play a key role as social institutions as presenters of culture, politics and social life of a country 'shaping as well as reflecting how these are formed and expressed' (Bell, 1995: 25). We find that the facts and judgments in the articles are inseparable from the events to which they refer (Núñez Ladevéze, 1995).

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