

DESIGNING EAP MATERIALS BASED ON INTERCULTURAL CORPUS ANALYSES: THE CASE OF LOGICAL MARKERS IN RESEARCH ARTICLES¹

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Abstract: *The ultimate aim of intercultural analyses in English for Academic Purposes is to help non-native scholars function successfully in the international disciplinary community in English. The aim of this paper is to show how corpus-based intercultural analyses can be useful to design EAP materials on a particular metadiscourse category, logical markers, in research article writing. The paper first describes the analysis carried out of additive, contrastive and consecutive logical markers in a corpus of research articles in English and in Spanish in a particular discipline, Business Management. Differences were found in their frequency and also in the use of each of the sub-categories. Then, five activities designed on the basis of these results are presented. They are aimed at raising Spanish Business scholars' awareness of the specific uses and pragmatic function of frequent logical markers in international research articles in English.*

Keywords: *Intercultural Rhetoric, English for Academic Purposes, research article, metadiscourse, logical markers.*

1. INTRODUCTION

Cross-cultural studies within English for Academic Purposes (EAP) have proliferated in recent years, Intercultural Rhetoric (Connor 2004a, 2004b) becoming a key perspective of analysis. These cross-cultural analyses tend to point at the different rhetorical and linguistic features in several academic genres in a given language and in English. The ultimate aim of intercultural studies of written academic discourse is often to help non-native academics successfully write their academic texts internationally in English. Scholars are –to a different degree in different disciplinary contexts– pressed to publish their research outcomes internationally in high impact journals in English in order to get recognition and their credentials. This situation has led EAP scholars to analyse not only the language of the academic genres in the target language English, but also the differences between academic genres in English and the scholars' native languages in the belief that difficulties will be likely to arise in areas of rhetorical divergence.

Thus, intercultural analyses often highlight the pedagogical implications of the research carried out and the results found. It is the aim of this paper not only to point at the pedagogical implications and applications of a set of results stemming from the intercultural (English-Spanish) analysis of a particular metadiscoursal feature in a particular genre, the research article (RA), in a specific discipline, Business Management, but also to indicate how these results inspired the design and implementation of pedagogical materials for a specific EAP course.

Research has shown how the linguistic/cultural context affects especially the rhetorical organization and the use of metadiscourse features in academic genres in English and in Spanish. As far as RA abstracts are concerned, several studies have shown the different organization in terms

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of the inclusion of moves in these academic texts from different disciplines written in English for an international audience and written in Spanish for a more local audience (Pérez Ruiz, 1999; Burgess, 2002; Martín Martín, 2003, 2005); furthermore, differences have also been shown in the use of first person pronouns (Lorés, 2006; Lorés and Murillo, 2007), epistemic modality markers (Martín Martín, 2002, 2005) and in the extent of inclusion of academic criticism (Martín Martín and Burgess, 2004) in this genre in the two contexts of publication. Significant variation has also been found in the macro and microstructure of academic book reviews (Suárez, 2006; Moreno and Suárez, 2006; Suárez and Moreno, 2008) and in the frequency of critical acts (Moreno and Suárez, 2008) in these texts in the two languages and cultural contexts. Finally, the RA has also attracted intercultural (Spanish-English) attention and the analyses have shown divergences in its micro-structure (Mur Dueñas, 2007a, 2007b) as well as in the use of reporting verbs (Fortanet, 1998), logical markers (Moreno, 1998; Mur Dueñas, 2007c) and first person pronouns (Martínez, 2005; Mur Dueñas, 2007d) that respond to the two particular linguistic/cultural contexts of publication.

Overall, (Spanish) scholars seem to be used to organising their texts, portraying an image of themselves and engaging with their readers through metadiscourse in a particular way when they address the national community in their native language. However, when the context and language of publication changes, non-native (Spanish) scholars may need to at least partially modify some of their rhetorical and metadiscoursal choices so that their texts are accepted in the new context of publication. They may have to adjust their writing to the new generic conventions, a process which may be eased by providing them with explicit guidelines on the rhetorical options available and the implications of taking these.

2. CORPUS-BASED ANALYSIS: LOGICAL MARKERS IN ENGLISH AND SPANISH RAS

Logical markers –also referred to as “logical connectors” (Vande Kopple, 1985), “connectors” (Mauranen, 1993), “logical connectives” (Crismore et al., 1993; Hyland, 1999, 2000), “text connectors” (Bunton, 1999) and “transitions” (Hyland, 2004, 2005; Hyland and Tse, 2004)– are considered a metadiscoursal category which may be subject to intercultural variation in RA writing. They are included in the text not only to organise the discourse and provide it with coherence, but also following generic and disciplinary conventions to guide readers towards a given interpretation and by this means to seek the readers’ acceptance of the claims made along the paper. Thus, logical markers not only perform a textual function, but also an interpersonal one. According to Hyland (2005), they are considered interactive in that they organise ideas and help provide the text with cohesion and coherence, but also, importantly, they directly address readers, ensuring they process information as intended. The number of logical markers in a text affects the type of relationship established between writers and readers as through them readers are smoothly led through the discourse, diminishing their reading process effort as the logico-semantic relationship between ideas and arguments is spelt out for them when these metadiscourse features are inserted. Further, the type of logical markers more frequently used also reflects the kind of argumentative discourse flow that is preferred in the particular RAs in a given context.

Logical markers were analysed in a corpus of 48 RAs in Business Management, 24 RAs were written in English by Anglo-American authors (ENGBM sub-corpus) and 24 RAs were written in Spanish by Spanish authors (SPBM sub-corpus). These two sub-corpora are part of a bigger corpus, SERAC (Spanish English Research Article Corpus), which comprises 72 RAs in Spanish and in English written by scholars based at Anglo-Saxon institutions and by scholars based at Spanish institutions in 8 different disciplines with the aim to carry out cross-cultural and cross-disciplinary analyses of this academic genre. To compile the ENGBM sub-corpus three journals were pointed out by specialists as the most commonly read and most prestigious ones in the field (Academy

of Management Journal, Journal of Management and Strategic Management Journal); 8 RAs authored by scholars based at North American universities were randomly selected from the most recent to the least recent issues of those journals. Similarly, three recognised journals in Spanish were identified (Cuadernos de Economía y Dirección de la Empresa, Dirección y Organización de Empresas and Revista Europea de Dirección y Economía de la Empresa), and 8 articles from each were randomly selected.

Following a corpus-driven methodology (Tognini-Bonelli, 2001), additive logical markers (i.e. metadiscourse features which indicate that what comes next is in the same argumentative line as the previous discourse unit, such as for example, moreover, in addition, además, por otro lado,), contrastive logical markers (i.e. metadiscourse features which signal an opposition or contrast between two parts of the discourse, such as for example however, yet, sin embargo, no obstante) and consecutive logical markers (i.e. metadiscourse features which make explicit a relationship of result or consequence between two stretches of discourse, such as for example, thus, therefore, por tanto, así) were extracted from the corpus. The RAs were carefully read and types selected. Tokens of those types were searched for using Wordsmith Tools and then manually revised through careful reading and analysis before including them in the counts to ensure that tokens actually functioned as logical markers in the given co-text and were part of the author(s)' argumentation. Types extracted were classified in the light of the existing literature on discourse markers and connectors. In particular, the work of Quirk et al. (1985), Martin (1992) and Fraser (1996, 1999) was consulted for the texts in English and those of Martín Zorraquino and Portolés (1999), Montolio (2001) and Portolés (2001) were consulted for the texts in Spanish.²

Table 1 summarises the results found in the two sub-corpora. They are in line with those reported in a pilot study based on a smaller sub-corpus (Mur Dueñas, 2007c).³

	ENGBM		SPBM	
	Total	Per 10,000 w.	Total	Per 10,000 w.
Additive	242	12.2	264	15.9
Contrastive	377	19.0	228	13.7
Consecutive	545	27.5	323	19.4
TOTAL	1,164	58.8	812	49.1

Table 1. Logical markers in the two sub-corpora.

Overall and normalized results indicate that logical markers are more sparingly used in the RAs in Spanish than in those in English. Further, there are also differences in the types of markers

² For particular explanations on the categorisation of the types as logical markers and within these into additive, contrastive and consecutive see Mur Dueñas (2007d).

³ The list of additive, contrastive and consecutive logical markers found in the two sub-corpora is included in the Appendix together with their frequency of use.

more commonly used in the two sub-corpora; although in both of them consecutive markers are the most frequently included sub-category, additive markers are the least common, followed by contrastive ones in the ENGBM sub-corpus, whereas additive markers rank second and contrastive ones third in the SPBM sub-corpus. This may entail a rhetorical difference in terms of how Anglo-American and Spanish business management scholars develop their argumentation. Spanish scholars appear to develop their arguments or present their ideas cumulatively more commonly than antithetically. Anglo-American scholars, however, appear to develop their arguments and ideas antithetically more frequently than cumulatively. These findings may support Barton's (1995) conclusion that contrast is a valuable basis for academic argumentation in the Anglophone cultural context, at least more valuable than in the Spanish context in the particular disciplinary community being explored.

Not only the frequency of these metadiscourse features was analysed but also their distributional use across the sections of the RAs. This qualitative analysis of the tokens provides some possible explanations for the different use of especially contrastive and consecutive logical markers in the two sub-corpora. The lower number of contrastive and consecutive logical markers in the RAs in Spanish may be a direct consequence of also the lower number of RAs in this context which present the move "Establishing a niche" in the Introduction, which very frequently entails the use of at least one contrastive and one consecutive logical marker in the RAs in English. In addition, fewer Spanish business management scholars include the steps "Limitations" and "Justifications" in the Discussion sections of their RAs (Mur Dueñas, 2007a), in which the shortcomings of the research are highlighted and, in order for the limitations not to make the research less valid in the eyes of the peers, some type of justification of why those limitations could not be overcome are sometimes added; these steps entail the use of contrastive and consecutive logical markers in the RAs in English. Further, more RAs in English also include the step "Statement of (non-)support for hypotheses" as well as "Statement of (un)expected findings" in the Results and/or Discussion sections, which frequently calls for the use of contrastive and consecutive logical markers, whereas very few RAs in Spanish present these steps.

As a result of these metadiscoursal and rhetorical differences, the different use of logical markers in the RAs in international RAs can be considered a challenge for non-native Spanish scholars wishing to publish their research outcomes internationally in English. They should therefore be exposed to the specific uses of logical markers in the English texts, making them aware of their pragmatic function and with reference to the particular context in which they appear. Following a critical pragmatic approach to EAP which "acknowledges that students should be exposed to dominant discourse norms" and "stresses that students have choices and should be free to adopt or subvert the dominant practices as they wish" (Harwood and Hadley, 2004: 357), the following activities were designed.

3. DESIGNING EAP MATERIALS ON THE USE OF LOGICAL MARKERS

Based upon the results presented above, the following five activities were devised and implemented in an EAP course for Business scholars in an attempt to make them aware of the specific uses of logical markers in international RAs and their pragmatic value as well as to their very common use in certain parts of the RA. They were designed following a three-phase organisation moving from observation to awareness-raising to end up with the scholars' production of small written fragments. As highlighted by Melles (1997), these activities are aimed at raising scholars' grammar and discourse consciousness in a particular generic context, the activities thus being fully communicatively contextualised.

Activity 1

1.1. In the following fragment from the introduction of a research article, indicate those markers which explicitly establish links between ideas.⁴

1.2. What type of relationship (addition, contrast, consequence) do they express? What would the effect be if they were omitted?

Although timing of entry has been extensively studied by various researchers (see Lieberman and Montgomery, 1988, 1998, for reviews of this literature), a great deal of emphasis has been given to the benefits that firms can derive from their early entry. Interest in this topic has mostly revolved around the various forms of advantages that can be created and sustained by early entrants. As such, the primary focus of the literature on entry timing has been on the theoretical models and empirical findings that can either confirm or deny the existence of first mover advantages.

In the process, little attention has been paid to the prospects of success among the large number of firms that clearly make their entry well after the early movers have already managed to create a growing market for their relatively new product. A few recent studies (Cho, Kim, and Rhee, 1998; Shankar, Carpenter, and Krishnamurthi, 1998; Zhang and Markman, 1998) have begun to focus on late movers. However, even these have largely concentrated on contrasting the market penetration of later entrants with that of firms that had moved earlier. As such, they have also tended to examine the extent to which their late entry is likely to curtail their chances of grabbing a significant share of the market that has already been developed by earlier entrants.

Consequently, this paper tries to link observed differences in the early success among late movers to several factors in addition to their simple order of entry. [...]

Activity 2

2.1. Here is a fragment taken from the Discussion section of a research article. Circle the marker which best fits the context. What type of relationship does it express?

(1) Past research on exchange dynamics in organizations has primarily focused on exchanges between employees and employers. In recent years, (a) however / further / therefore, the flattening of organizational hierarchies and the popularity of various management practices based on employee involvement (such as self-managing work teams) have begun to reduce hierarchical differences among employees. (b) In contrast / As a result / In addition, an increasing number of important interactions are taking place among peer employees who have no hierarchical authority over one another.

2.2. Here is another fragment taken from the Results section of a BM RA. Highlight the marker which best fits the context.

(2) As expected, anger-out positively predicted aggressive behavior ($b = 0.47, p < .01$). In addition / However / Consequently, anger-in, negative affectivity, and self-monitoring were not significantly related to employee aggression. Rather / Thus / Moreover, Hypothesis 3 was only partially supported.

⁴ Correct answers are indicated by means of broken underlining.

Activity 3

3.1. Insert a suitable logical marker into each of the gaps.

3.2. In which part of the RA do you think these fragments appear?

(1) Applying theories about the macro social context to the recruitment and selection literature is an important advance because contextual factors should enrich understanding of the preferences that organizational decision makers develop during the hiring process, and how these processes shape organizational hiring behavior (Jackson & Schuler 1995). However (a), no research to date has introduced a conceptual scheme for thinking about which social environmental factors are likely to produce differences in organizational recruitment and selection outcomes (Jackson & Schuler, 1995; Rynes 1991). Although emergent strategic HRM research has broadened the theoretical perspectives that are applied to HRM decisions, it has focused on intraorganizational characteristics, such as the fit between HRM practices and organizational strategy (e.g., Wright & McMahan, 1992), the relationship between HRM practices and firm performance (e.g., Delery & Doty, 1996), and the impact of intrafirm politics and power on HRM decisions (e.g., Welbourne & Trevor, 2000). Thus / Therefore_ (b), an important next step is merging interorganizational or institutional factors with the HRM research literature (Ferris et al., 1999).

Fragment from the Introduction (Establishing a niche)

(2) Our analyses were based on a sample of health care workers present at staff meetings, a characteristic that limits the generalizability of results. However (c), one could argue that this sample produced attenuated results since health care workers are expected to be caring and empathetic to those they care for and, perhaps by extension, to one another. Consistency with Robinson and O'Leary-Kelly's study and previous research pro-vides confidence that the current results are not sample-specific.

These data are not immune to the possibility of common method bias—always a concern when single-source, self-report data are used. However (d), a key predictor of work group aggression did not include information from the focal individual. Moreover / In addition / Further / Furthermore , the differential relations are counter to what might be generated by common method bias. Moreover / In addition / Further / Furthermore (e), many of the relationships are consistent with prior empirical and theoretical work on aggression.

Fragment from the Discussion (Limitations)

Activity 4

4.1. State what the common order of the following fragments would be.

4.2. Insert a suitable logical marker into each of the gaps.

4.3. In which part of the RA do you think these fragments appear?

(4) In this paper, we therefore attempt to address this important topic that has been largely neglected by past studies. We focus exclusively on a large sample of firms that can be clearly regarded as late entrants. [...]

(1) Although timing of entry has been extensively studied by various researchers (see Lieberman and Montgomery, 1988, 1998, for reviews of this literature), a great deal of emphasis has been given to the benefits that firms can derive from their early entry. Interest in this topic has mostly revolved around the various forms of advantages that can be created and sustained by early entrants. [...]

(3) However, even these have largely concentrated on contrasting the market penetration of later entrants with that of firms that had moved earlier. [...]

(2) In the process, little attention has been paid to the prospects of success among the large number of firms that clearly make their entry well after the early movers have already managed to create a growing market for their relatively new product. A few recent studies (Cho, Kim, and Rhee, 1998; Shankar, Carpenter, and Krishnamurthi, 1998; Zhang and Markman, 1998) have begun to focus on late movers. [...].

Fragments from the Introduction (Establishing and occupying the niche).

Activity 5

There are several ways that future research can build on this (introduction) of In this study we only examined
However,
.....
Thus, future research could explore this issue by
.....
.....

5.1. Here is a fragment taken from the Discussion section of a research article. Try to continue it.

..... has been extensively studied by various researchers (xxx). A great deal of emphasis has been given to Interest in this topic has mostly revolved around
.....
However, little attention has been paid to
.....
.....
Thus, this study focuses on
.....
.....

5.2. Here is another fragment taken from the introduction of a research article. Try to continue it.

Through these activities scholars are made aware of the frequent use of logical markers in international RAs in English to indicate the flow of the argument and the relationship between ideas, easing the reading-process of the audience addressed and ensuring ideas are interpreted as intended by the authors. The focus is placed on the main divergences found between both sub-corpora, namely, the higher overall frequency of use of logical markers and the different frequency of use of additive and contrastive markers in the two sub-corpora, especially in some moves and steps within the RA. Further, extracts containing those logical markers which were found to be generally more frequently used in the RAs in English were taken from the corpus to elaborate the activities. In all, by completing these activities Spanish Business scholars are exposed to conventional uses of logical markers in RAs in an international context, that is, they are confronted with dominant discourse norms. Yet, throughout the completion of these tasks they are informed on the multiple choices and the possibility to subvert these conventionalised norms in dominant Anglo-American publications.

4. FINAL REMARKS

This paper has aimed at presenting a series of activities on the use of a particular metadiscourse category, that of logical markers, closely based on the results obtained from an intercultural (English-Spanish) corpus-based analysis of these features. This analysis showed that logical markers are overall more frequently included in the RAs in English than in those in Spanish. Further, it was found that additive logical markers were more common in the Spanish sub-corpus than in the English one and, on the other hand, contrastive logical markers were far more frequent in the international RAs in English than in those in Spanish. These differences point at a different writer-reader relationship built in the two sets of texts as well as at a difference in the construction of arguments. Going deeper into the qualitative analysis of the features, it became apparent that some of these differences in the use of different categories of logical markers could be grounded on rhetorical divergences especially as regards the micro-structure of the business management RAs in the two linguistic/cultural contexts. In the belief that these differences should be pointed out to Spanish scholars wishing to publish their research internationally in English, they were taken as the basis to design some activities used in an EAP course addressed to Spanish Business scholars.

The findings from the intercultural corpus analysis have been helpful and valuable to create materials that not only are based on authentic materials but which also draw non-native Spanish scholars' attention to the main points of divergence between the conventions shared in the Spanish disciplinary community and those prevailing in the international Anglo-American community. Nevertheless, as has already pointed out, Spanish scholars should not be consistently led to accommodate to the norms shared by Anglo-American scholars in this discipline but it is important to raise their consciousness about the different uses and let them choose whether to subvert or not these conventions. In any case, the resulting activities presented are research-based, linked with the disciplinary context, use authentic language data and aim at raising the researchers' awareness, asking them do their own research, that is they fulfil the conditions Koutsantoni (2007) suggests EAP materials should have to be pedagogically effective.

REFERENCES

- Barton E. L. (1995). "Contrastive and non-contrastive connectives: metadiscourse functions in argumentation" *Written Communication*, 12: 219-239.
- Bunton, D. (1999). "The use of higher level metatext in PhD theses" *English for Specific Purposes*, 18: 41-56.
- Burgess, S. (2002). "Packed houses and intimate gatherings: audience and rhetorical strategies," in J. Flowerdew (ed.) *Academic Discourse*. London: Longman: 196-225.
- Connor, U. (2004a). "Introduction" *Journal of English for Academic Purposes*, 3: 271-276.
- Connor, U. (2004b). "Intercultural rhetoric research: beyond texts" *Journal of English for Academic Purposes*, 3: 291-304.
- Crismore, A. et al. (1993). "Metadiscourse in persuasive writing: a study of texts written by American and Finnish university students" *Written Communication*, 10: 39-71.
- Fortanet, I. (1998). "Verb usage in academic writing: reporting verbs in economics research articles in English and in Spanish", in L. Lundquist, H. Picht & J. Qvistgaard (eds.) *Proceedings of the 11th European Symposium on Language for Special Purposes*. LSP Identity and Interface Research, Knowledge and Society. Copenhagen: Copenhagen Business School, LSP Centre: 231-240.
- Fraser B. (1996). "Pragmatic markers" *Pragmatics*, 6: 167-190.
- Fraser B. (1999). "What are discourse markers?" *Journal of Pragmatics*, 31: 931-952.
- Harwood, N. & Hadley, G. (2004). "Demystifying institutional practices: critical pragmatism and the teaching of academic writing" *English for Specific Purposes*, 23: 355-377.
- Hyland, K. (1999). "Disciplinary discourses: writer stance in research articles", in C.N. Candlin & K. Hyland (eds.) *Writing: Texts, Processes and Practices*. London: Longman: 99-121.
- Hyland, K. (2000). *Disciplinary Discourses: Social Interactions in Academic Writing*. London: Longman.
- Hyland, K. (2004). "Disciplinary interactions: metadiscourse in L2 postgraduate writing" *Journal of Second Language Writing*, 13: 133-151.
- Hyland, K. (2005). *Metadiscourse*. London: Continuum.
- Hyland, K. & Tse, P. (2004). "Metadiscourse in academic writing: a reappraisal" *Applied Linguistics*, 25: 156-177.
- Koutsantoni, D. (2007). *Developing Academic Literacies: Understanding Disciplinary Communities' Culture and Rhetoric*. Bern: Peter Lang.
- Lorés, R. (2006). "'I will argue that': first person pronouns as metadiscoursal devices in research article abstracts in English and Spanish" *ESP Across Cultures*, 3: 23-40.
- Lorés, R. & Murillo, S. (2007). "Authorial identity and reader involvement in academic writing: a contrastive study of the use of pronouns in RA abstracts", in R. Mairal (ed.) *Proceedings of the XIV AESLA Conference*. Madrid: AESLA and UNED: 1249-1257.
- Martin J.R. (1992). *English Text: System and Structure*. Philadelphia /Amsterdam: John Benjamins Publishing Company.
- Martín Martín, P. (2002). "A genre-based investigation of abstract writing in English and Spanish" *Revista Canaria de Estudios Ingleses*, 44: 47-64.
- Martín Martín, P. (2003). "A genre analysis of English and Spanish research paper abstracts in experimental social sciences" *English for Specific Purposes*, 22: 25-43.
- Martín Martín, P. (2005). *The Rhetoric of the Abstract in English and Spanish Scientific Discourse: A Cross-cultural Genre-analytic Approach*. Bern: Peter Lang.
- Martín Martín, P. & Burgess, S. (2004). "The rhetorical management of academic criticism in research article abstracts" *Text* 24, 171-195.
- Martín Zorraquino M. A. & Portolés, J. (1999). "Los marcadores del discurso", in I. Bosque & V. Demonte (eds.) *Gramática Descriptiva de la Lengua Española*, 3. Madrid: Espasa-Calpe: 4051-4213.

- Martínez, I. (2005). "Native and non-native writer's use of first person pronouns in the different sections of biology research articles in biology." *Journal of Second Language Writing*, 14: 174-190.
- Melles, Gavin. (1997). "Enfocando la competencia lingüística: concienciación gramatical." *Hispania*, 80: 848-858.
- Montolio, E. (2001). *Conectores de la Lengua Escrita*. Barcelona: Ariel Practicum.
- Moreno, A. I. (1998). "The explicit signalling of premise-conclusion sequences in research articles: a contrastive framework." *Text* 18: 545-585.
- Moreno, A. I. (2004). "Retrospective labelling in premise-conclusion metatext: an English-Spanish contrastive study of research articles on business and economics." *Journal of English for Academic Purposes*, 3: 321-339.
- Moreno, A. I. & Suárez, L. (2006). "The rhetorical structure of academic journal book reviews: a cross-linguist and cross-disciplinary approach," in C. Pérez-Llantada, R. Pló & C. P. Neumann (eds.) *Proceedings of the 5th International AELFE Conference*. Zaragoza: Prensas Universitarias: 191-196.
- Moreno, A. I. & Suárez, L. (2008). "A study of critical attitude across English and Spanish academic book reviews." *Journal of English for Academic Purposes*, 7: 15-26.
- Mur Dueñas, P. (2007a). "A cross-cultural analysis of the research article discussion move" in R. Mairal (ed.) *Proceedings of the XIV AESLA Conference*. Madrid: AESLA and UNED: 1259-1267.
- Mur Dueñas, Pilar. (2007b). "A cross-cultural analysis of the generic structure of business management research articles: The Methods Section." *Odisea* 8: 123-137.
- Mur Dueñas, P. (2007c). "Same genre, same discipline; however, there are differences: a cross-cultural analysis of logical markers in academic writing." *ESP Across Cultures* 4: 37-53.
- Mur Dueñas, P. (2007d). "'I/We focus on...': a cross-cultural analysis of self-mentions in business management research articles." *Journal of English for Academic Purposes* 6: 143-162.
- Pérez Ruiz, L. (1999). "Análisis contrastivo de los resúmenes en inglés y en español en artículos publicados en el campo de la epidemiología." *ES* 22: 167-176.
- Portolés J. (2001). *Marcadores del Discurso*. Barcelona: Ariel Practicum.
- Quirk, R et al. (1985). *A Comprehensive Grammar of the English Language*. Harlow: Longman.
- Suárez, L. (2006). *Modes of Evaluation and Rhetorical Patterns: A Contrastive Study of English and Spanish Book Reviews*. Unpublished PhD. Universidad de León.
- Suárez, L. & Moreno, A.I. (2008). "The rhetorical structure of literary academic book reviews: an English-Spanish cross-linguistic approach," in U. Connor, E. Nagelhout & W. Rozycki (eds.) *Contrastive Rhetoric: Reaching to Intercultural Rhetoric*. Amsterdam: John Benjamins: 147-168.
- Tognini Bonelli, E. (2001). *Corpus Linguistics at Work*. Philadelphia/Amsterdam: John Benjamins.
- Vande Kopple, W. J. (1985). "Some exploratory discourse on metadiscourse." *College Composition and Communication* 36: 63-94.

Appendix. Additive, contrastive and consecutive logical markers in the sub-corpora.

Additive logical markers

moreover	48	además	63
in addition	46	por otro lado	50
furthermore	40	asimismo/así mismo	44
further	40	por su parte	34
similarly	25	por otra parte	28
additionally	12	adicionalmente	13
and	12	igualmente	11
likewise	11	y	8
also	8	a su vez	7
		de igual forma	3
		de igual modo	2
		incluso	1

Contrastive logical markers

however	226	sin embargo	113
yet	29	no obstante	50
in contrast	24	por el contrario	18
nevertheless	17	en cambio	16
rather	15	ahora bien	9
instead	14	pero	8
on the other hand	11	a pesar de ello	6
by contrast	10	por contra	5
alternatively	9	con todo	2
but	7	aun así	1
though	4		
conversely	4		
otherwise	2		
still	2		
needless to say	1		
nonetheless	1		
on the contrary	1		

Consecutive logical markers

thus	272	por tanto	131
therefore	118	así	98
consequently	31	por (todo) ello	31
as a result	29	así pues	12
so	21	por lo tanto	10
then	16	en consecuencia	9
as such	16	pues	7
thereby	15	entonces	7
accordingly	12	por este motivo	5
hence	10	por esta razón	5
as a consequence	3	por consiguiente	4
for this/that reason	2	como consecuencia	2
		como resultado	2